

© GETTING THERE ASMP

Managing Our Demand

Demand on our transportation network is the use of our transportation systems. When we wish to drive our car to work or walk to the park we are signaling a desire to use that road or sidewalk; we are creating a demand for the transportation network. Rush hour, when most people are using the transportation network, is a period of high demand. When demand on our transportation network exceeds the capacity our network can supply we experience congestion.

Transportation demand is driven by several different things, and it often ebbs and flows throughout each day and throughout the year. When we need to go to work affects when we wish to travel on our transportation network. Land use also has a large influence on our demand; where and how we build, our homes, workplaces, and stores dictate how we access those places. It is difficult to walk to the park if the only road available is a highway. Where we put our vehicles, whether or not we use our cars by ourselves or with people, and if we own a car at all, all affect how we move around and the demand for our transportation network.

Our transportation network is a finite resource; there is a limited amount of space in which to build or expand our network. However, the demand on our transportation network continues to grow. Historically, our urban landscape served this growing demand by focusing on supply. We would expand our transportation network's capacity through the construction of high-volume roadways. This added capacity has encouraged and incentivized car trips, most of which are drive-alone trips. However, more and larger roadways have increased the demand for our transportation network. This is not unique to Austin; new and expanded roadways have been shown to create more demand for our roads. To help alleviate the burden on what the transportation network can supply, we must focus on how we can manage our demand.

This chapter examines how to maximize the effectiveness of our transportation network. Land use planning helps us use our different transportation systems more effectively. Parking supply can influence the number of vehicle trips taken on our transportation network. We manage our curb space by determining how and when it should be used best. We also manage our demand through programming that specifically targets reducing drive-alone trips. Shared, smart mobility options make it possible for emerging technologies to reduce driving alone. Managing the demand on our transportation network is critical to most efficiently use our limited supply.



Policy Summary

Land Use

- Policy 1 Promote transit-supportive densities along the Transit Priority Network
- Policy 2 Encourage employers to locate near public transportation
- Policy 3 Create places that encourage travel choice and are connected
- Policy 4 Minimize the impact of development on the roadway system by prioritizing multimodal solutions
- Policy 5 Make streets great places

Parking

- Policy 1 Efficiently use existing parking supply
- Policy 2 Right-size future parking supply to encourage sustainable trip options
- **Policy 3** Coordinate on-street parking with curb management strategies for flexibility and adaptability with future parking and mobility technology

Curb Management

- Policy 1 Use context to determine mobility and non-mobility curb uses
- Policy 2 Manage curb space dynamically
- Policy 3 Streamline objects at the curb to improve safety and mobility

Transportation Demand Management Programming

- **Policy 1** Implement community-wide strategies to increase use of all transportation options and manage congestion
- **Policy 2** Lead by example in offering, promoting, and implementing mobility options for City of Austin employees

Shared Mobility

- Policy 1 Emphasize and incentivize shared mobility solutions
- Policy 2 Promote seamless transfers between transportation modes and systems
- Policy 3 Support the creation of Mobility Hubs



Land Use

Land use lays the foundation for how Austinites travel. Austin's historic downtown was built as a compact grid system, which allows for quick and direct access to destinations when traveling on foot, bicycle, and transit. In contrast, the sprawling development patterns seen in Austin's recent history were built as auto-centric, disconnected systems and are neither safe nor convenient for people to access using other modes of transportation. This shift away from traditional, compact and connected development patterns has created an environment in which the majority of transportation infrastructure is designed for car travel, resulting in increased congestion, unsafe and impractical conditions for bicycling and walking, and challenges to public transportation's speed and reliability.

Future land use patterns must allow for more people to be able to choose to live near the places they work and play during all stages of life by requiring a mix of land uses. Allowing for mixed-use and infill development can increase access to safe and convenient transportation options beyond car travel by providing pedestrian, bicycle, and transit access to many types of nearby destinations. Creating a more compact and connected community will assist in improving Austin's affordability by reducing the necessity of owning a private automobile in order to meet one's daily needs.

In comparison to low-density development, compact development can slow the loss of natural open space and agricultural lands and reduce greenhouse gas emissions associated with longer trips. Sprawling Progressive land use policies and affordable housing incentives on corridors and centers is essential in creating the travel patterns and transportation/livability outcomes that we hope for."

-Community member

development also drives up the public costs for streets, drainage infrastructure, and other infrastructure that must be continually extended to serve low-density development. More compact growth contains costs by capitalizing on the land and infrastructure already in place.

A good land use plan is also a good transportation plan, which makes it imperative that we encourage better land use and development patterns to create a more transit-supportive, multimodal, and accessible Austin.

Indicators and Targets



Increase the number of people living and working within a 1/2 mile of the Transit Priority Network



Increase the number of people living and working within a 1/2 mile of all ages and abilities bicycle facilities



Increase the number of developments contributing to transit, walking, bicycle, and shared mobility improvements



Reduce the number of drive-alone trips generated and vehicle miles traveled by new developments (by shifting trips to other modes and not by decreasing intensity)

Achieve an average 50% drive-alone trip reduction at a minimum by developments undergoing transportation analyses

Promote transit-supportive densities along the Transit Priority Network

Require or incentivize transit-supportive densities along Transit Priority Network corridors

Appropriate land use density is the foundation for efficient public transportation; dense urban areas with multiple uses including employment centers, multifamily homes, and commercial uses make high-quality transit services, viable. When more people live close to transit, transit can run more often and connect people to more destinations.

Transit-supportive density can be achieved by requiring an appropriate level of density through land planning efforts and zoning regulations, as well as through development incentives associated with small area planning policies.

Encouraging denser development near the Transit Priority Network will foster development patterns which will create compact centers designed to encourage walking and bicycling, and will enable transit-supportive development. Strategies to encourage this type of development include providing incentives in certain cases or enacting more permissive regulations for developments that go above and beyond base zoning requirements. Direct public investment in and management of redevelopment at major mobility hubs will ensure high levels of community benefits accompany density along the Transit Priority Network. These community benefits should include affordable housing, affordable space for arts, music, "legacy," and small business uses, and other amenities like "green" design and childcare.

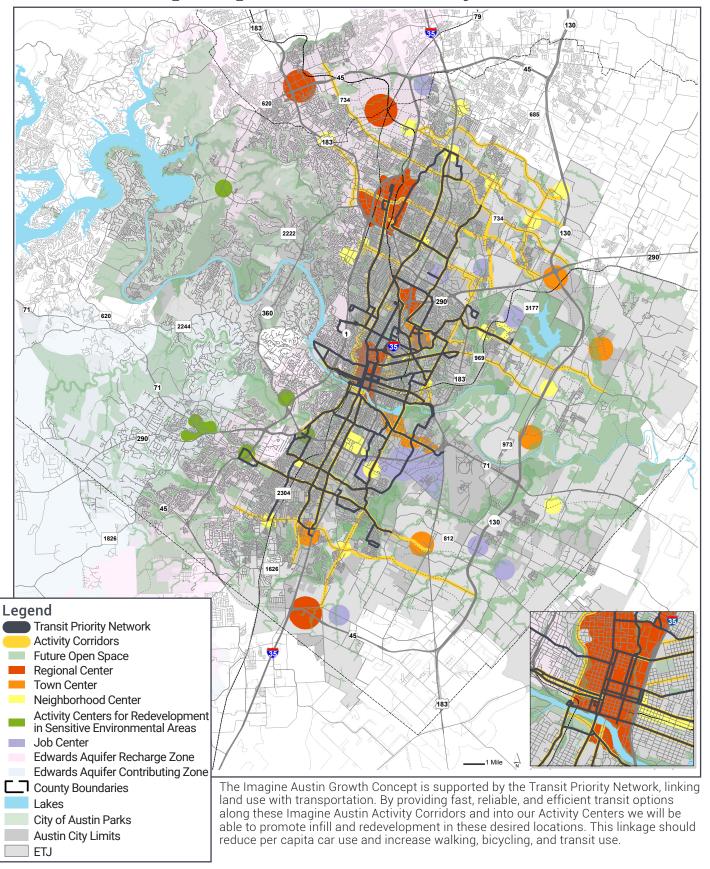
Transit-Supportive Densities

Population density refers to the amount of people that live, work, or play within a specified geographic area. It is generally measured by people or units per acre. When enough people live, work, or play in an area, it means that public transportation serving the area can be economically, environmentally, and socially efficient.

Different contexts, including whether a place is urban or suburban, whether it is residentially- or commercially-focused, and other differences, may require different densities to be transit-supportive. Within the urban and suburban contexts of Austin, Capital Metro has defined what transit-supportive density levels are. These numbers reflect the average amount of people per acre along the entire transit corridor.

Residential transit-supportive density: 16 people per acre Commercial transit-supportive density: 8 people per acre

Growth Concept Map and Transit Priority Network



Encourage employers to locate near public transportation

Locate employment-intensive commercial zones along Transit Priority Network corridors

Most of our roadway congestion is the result of people traveling to and from work. When employers are located along corridors with high-quality and frequent transit service, employees have greater options to travel to and from the workplace, providing for congestion relief by reducing drive-alone trips during peak travel hours. These additional transit users also help to create a more robust and reliable transit network by further warranting an increase in transit frequency, making transit more attractive to other types of riders.

By properly zoning properties located near the Transit Priority Network, future development patterns will provide for efficient and reliable public transportation opportunities for people who work in Austin. We must require proper development density, including an increase in commercial, music and creative, and mixed-use developments, along these transit corridors. This can be accomplished through land planning efforts, zoning regulations, and small area planning processes to strengthen existing and future transit services.



Create places that encourage travel choice and are connected

Design complete communities where land use encourages convenient transportation options and all modes are integrated into the transportation network

Complete communities are places where the transportation network is made up of complete streets. These places consist of highly connected streets and pedestrian pathways, which allow for multiple travel choices. Complete streets connect people to places by encouraging walking, bicycling, and taking transit, enabling people of all ages and abilities to move around easily and safely.

We need choice, connection, and safety to be prioritized."

Land use regulations should require a proper density and mix of uses, encouraging complete communities by placing residential, employment, and commercial land uses in close proximity to one another. Regulations

-Community member

39

should also promote infill development, which provides opportunities to fill missing gaps in the transportation network. We must require transportation infrastructure for all modes to be properly constructed in conjunction with new development to be able to safely connect people to the places they need to go.

South Central Waterfront

The South Central Waterfront encompasses 118 acres directly across Lady Bird Lake from downtown. It is composed of 32 separate private properties. The South Central Waterfront Initiative promotes a vision and a set of recommendations, tools, and programs to guide redevelopment for this area over the next 20 years. The goal is to ensure that, as the area changes, every increment of change will contribute to making a great new district that:

- Establishes a lively, safe, and attractive pedestrian environment,
- Expands open spaces and creates great public places,
- Enhances connections to and along the waterfront, and
- Includes 20% new affordable housing units, which is approximately 530 units.

The Initiative's Vision Framework Plan sets a path to create a district-wide network of connected green streets, parks, trails, and public open spaces, while also ensuring appropriate density and character is retained as Central Austin develops.

Minimize the impact of development on the roadway system by prioritizing multimodal solutions

Safely connect people to the transit, sidewalk, bicycle, and urban trail systems to offset the vehicular demand generated by development

While land development can provide assets in our community like more housing, economic opportunities, and access to services, it can also have negative impacts on our transportation network. New development can further exacerbate an already congested and incomplete transportation network, especially when historical development regulations have centered on the automobile, leaving gaps in the pedestrian, bicycle, and transit systems.

We must provide multimodal solutions in conjunction with new development to ensure that transportation impacts are dispersed among many transportation modes and that safety enhancements are constructed alongside new development projects to mitigate potential safety risks, such as connecting new sidewalks to existing sidewalks nearby. Completing these missing gaps in the transportation network for pedestrian, bicycle, and transit infrastructure during the development review process will ensure that new developments provide for more travel choices beyond driving.



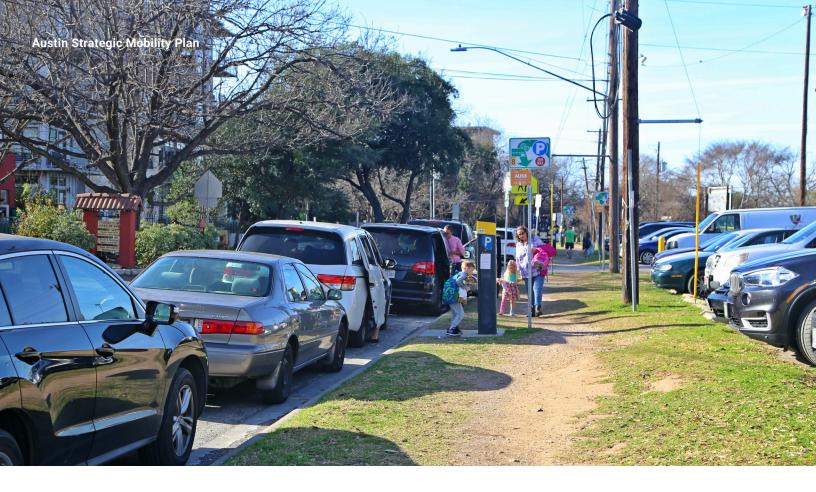
Make streets great places

Facilitate social interaction by encouraging mixed-use developments that are served by multiple transportation modes, with active ground floor uses and welcoming public spaces

Our streets are the majority of our public spaces in Austin and can be seen as our city's largest public asset. Streets also do more than just facilitate travel from one place to another, they are places in themselves that facilitate social interaction and economic activity. The spaces between our buildings and our streets become the places where people interact with the built environment and each other, whether that is walking on a crowded sidewalk to catch a bus or meeting a friend for coffee at a street cafe. This public space, where personal movement meets social interaction, is an important consideration when we regulate and design our land development and transportation network.

Mixed-use developments include multiple use types in close proximity to one another and follow a more traditional neighborhood design versus the sprawling development pattern historically seen in Austin. These developments allow for the opportunity to live, work, and shop within the same geographic area and provide an opportunity for livelier and better utilized public spaces. By developing a mix of uses within a more compact area, we make walking, bicycling and taking transit more attractive and easier for our community and visitors. In addition, these development types foster interaction and increase safety by increasing community awareness. Development regulations built into our land development code should require new and infill developments to utilize a mix of uses rather than a single use, encourage active ground floor uses, and require compact street design to make streets great places and facilitate safe mobility options.





Parking

Effective management of parking can improve mobility, safety, the environment, and affordability. Parking management is closely tied to land use regulations and curb management practices, and as such, they should both be written to encourage better parking management. Land use regulations should be written to ensure new developments accommodate different travel options, not just people in cars. Parking requirements should focus on maximums instead of minimums, and parking spaces should be offered to buyers and renters separately from rent or housing purchase, a practice known as "unbundling."

Parking management could incorporate innovative curb management techniques to help reduce congestion, such as technology that alerts drivers to available spaces so they are not adding to traffic by circling in search of parking spaces. Properly pricing public parking at market rate could also help ease congestion by evenly distributing the demand across

It is time to diversify surface lots and ground floor parking amenities to help promote a vibrant street culture."

-Community member

the parking system and making other travel choices attractive to more users. Flexible curb use could also enhance mobility by allowing various purposes for parking spaces during different hours of the day, such as valet parking, ride-hail pickup and drop-off locations, or as public spaces such as parklets.

Parking management strategies can help shift community preferences from drive-alone trips to multimodal ones through innovative coordination of public parking spaces, enhanced transit options, and adjusted parking costs that reflect the true cost of driving. To assist these strategies, we need land use regulations that allow right-sizing of parking requirements and encourage off-site and shared use parking. Stronger enforcement of our parking regulations, whether a car has overstayed a meter, is parked in a travel or bicycle lane, or is illegally occupying an accessible space, is necessary to further help shift travel preferences from drive-alone trips to multimodal travel.

Indicators and Targets



Increase the availability of managed on-street parking

Target an average 85% parking utilization for managed on-street parking



Increase real-time information on space location and availability



Decrease the amount of parking spaces per capita



Increase the availability, distribution, and percentage of parking in Imagine Austin activity centers and along activity corridors that is accessible



Increase the percentage of developments that reduce parking

Efficiently use existing parking supply

Implement flexible parking management strategies to leverage existing parking supply, both on-street and off-street, to help manage demand and decrease impacts on the transportation network

Efficiently managing parking supply will ensure that the impact of parking is minimized on the transportation network. Driving around in search of parking contributes to congestion and can be a frustrating experience. For example, downtown Austin has an abundant parking supply both on- and off-street, yet parking availability challenges continue to persist. While on-street parking is certainly more affordable per hour than off-street parking, there is less on-street parking available and off-street parking sits unused. We must use parking management strategies to correct this imbalance, such as

How we manage our parking supply drives demand for motor vehicle use and directly affects the number of drive-alone trips.

with performance-based parking that allows prices to be set that encourage specific availability targets for on-street parking. This management tool helps distribute parking demand across the parking supply, encouraging people to park based on their needs and location and not just where is the cheapest.

Shared parking is another management strategy that opens up existing parking supply to be used for more than one use. In downtown Austin, one out of four off-street parking spaces is reserved for a specific private use, yet it sits unused during the busiest times of the day. An office that operates only during the day could make its parking publicly available in the evening hours. Allowing this existing parking supply to become available for public use increases our total parking supply at a lower cost than building new parking.

Shared parking should be encouraged both downtown and throughout the city, especially in commercial and mixed-use districts, by reducing regulatory barriers to shared parking and integrating existing on-street parking into more holistic district parking systems. Existing programs that restrict on-street parking for specific commercial and residential uses should be reevaluated and modernized to support our multimodal transportation network. By directly managing demand on parking, encouraging more travel choices beyond driving, and decreasing impacts on the transportation network, these parking management concepts have potential impacts that extend beyond the limits of downtown.



Right-size future parking supply to encourage sustainable trip options

Assess, design, and implement location-specific parking that takes into consideration surrounding network capacity and supports increased multimodal and environmentally-friendly travel choices

Minimum parking requirements have resulted in an overabundance of parking in many locations throughout Austin and have continued to encourage people to drive to their destination. These parking spaces are expensive to build and maintain, and promote automobile use even when short trips can be easily accessed by walking, bicycling, or by taking transit. More efficient use of our land should be considered when building new developments and when remodeling older properties.

Zoning codes should be modified to: reduce parking requirements; promote shared and off-site parking among neighboring properties; utilize unbundling of parking in conjunction with site-specific TDM plans; and to support walkable, mixed-use developments to lessen the need for parking. Unbundling of parking, for example, would help manage demand on the transportation network by only providing parking for those who use it and decrease project costs for the creation of affordable housing. Affordable housing, creative and music venues, and small, local businesses in neighborhoods especially would benefit from reductions in parking requirements.

Parking supply should be more actively coordinated on district levels to support adequate parking, particularly in commercial and entertainment districts. Reducing regulatory barriers to shared parking strategies and encouraging holistic, district parking strategies can help meet current needs for parking access while reducing the portion of built space used for parking. By right-sizing the number of parking spaces provided in the future, we can use our land more efficiently to allow for sustainable transportation and more welcoming places.



Coordinate on-street parking with curb management strategies for flexibility and adaptability with future parking and mobility technology

Consider the needs of evolving transportation options when assessing the best use of parking spaces to accommodate all uses and modes

On-street parking should be coordinated with other uses of the curb to ensure the most appropriate use for certain times of the day. We can maximize the use of our existing parking supply by reducing demand using curb management strategies that prioritize mobility. The flexibility of on-street parking spaces can also allow for creative placemaking activities, such as sidewalk cafes and temporary park installations. On-street parking can also be used for ride-hailing pickup and drop-off, bicycle parking, and trash collection. The flexible use of on-street parking areas must be incorporated in a context-sensitive manner to ensure all users of the right of way have the opportunity to utilize this important public space.

Street Patios

Street patios are an extension of pedestrian space that enlivens the public realm. Also known as "parklets," street patios are converted parking spaces adjacent to businesses and leased for retail uses. Austin City Council directed the creation of the street patio program, which is overseen by Austin Transportation. In 2014, street patios were incorporated into the City's temporary sidewalk café permitting process.

Street patios support local businesses and economic vitality, create a sense of place for neighborhoods and business districts, beautify the streetscape, and create walkable destinations for pedestrians. By creating a people-oriented amenity in street space previously dedicated to vehicles, street patios are a cost-effective way for the City to partner with local private businesses to achieve our mobility goals. Although private businesses currently fund, operate, and maintain street patios, in the future we could also convert additional spaces to operate as a public pocket park.





Curb Management

Curb management is the flexible and efficient use of the public space located between building fronts and the vehicular travel lanes; this is the space in which the movement of people and goods meets access. In order to utilize public curb space efficiently, clear guidance is needed to ensure curb management strategies are available to allow all users of the public realm adequate space in which to carry out their daily needs.

Curb space activity encompasses an array of uses, many of which occur simultaneously and can be in conflict with one another. The following are examples of the diverse activities which occur within this public space: vehicle parking and loading; bicycle parking; transit service, shuttle, pedicab, taxicab and ride-hail pickup and drop-off; trash, recycle, and

Buses must have pull over areas so the lane can be cleared for cars or bicycles."

-Community member

compost pickup; emerging shared mobility options; wayfinding; sidewalk cafes; parklets; traffic control devices; and vegetation like trees and rain gardens. However, many activities performed within this space can be effectively coordinated to occur without conflict and with greater efficiency while also enhancing the public realm and promoting the seamless integration of mobility options.

Indicators and Targets



Reduce the number of conflicts between parking and bicycle lanes



Reduce congestion on streets that incorporate curb management strategies



Increase the number of bicycle and shared active mobility parking spaces



Increase the number of parklets and active placemaking opportunities



Increase the productivity of curb space to serve more people per hour



Reduce the number of crashes associated with conflicts at or along the curb on streets that incorporate curb management strategies

Use context to determine mobility and non-mobility curb uses

Identify the most appropriate uses for curbs by considering mobility, safety, street type, surrounding land use, and location

Appropriate use of curb space varies depending on location, time of day, travel demand, and, most importantly, public safety. Additionally, geographic and land use contexts determine differing curb space needs and differing levels of management complexity. Context consideration is important for identifying the most critical uses of the curb. For example, areas within the downtown core require multiple coordination efforts to safely and efficiently allow various activities to occur within the same curb space throughout the day. In contrast, curb space located along less traveled streets may require fewer uses to occur, and therefore mean that coordinating these uses is less complex. However, both examples involve context-sensitive issues and can equally affect safety and mobility if managed incorrectly. In addition to location and land use, time of day should be considered, as peak travel times are associated with greater demand for mobility than off-peak travel times. Overall, when determining the appropriate use of curb space, safety and mobility needs are at the forefront and will need to guide curb management practices.

Without a doubt, the curb in an urban setting is more valuable than ever before due to all of the demands placed on it by various sources. As such, its value should be consistent with the policies that govern it and the associated pricing structure.

National Example: Washington D.C. Pick-Up and Drop-Off Zones

The District of Columbia's Department of Transportation (DDOT), in coordination with private ride-hailing companies and local business improvement districts (BIDs), recently implemented new pick-up and drop-off zone pilots following a successful pilot in the Golden Triangle Nightlife BID. The pilot was implemented when businesses in the area noticed increasing gridlock and safety concerns occurring during nightlife hours, much of which was resulting from ride-hailing passenger pick-up and drop-off.

After rounds of data collection and public input, the District piloted new curb management restrictions in the three-block area with the highest concentration of nightlife venues. New parking signs were used to communicate a prohibition of on-street parking between the hours of 10 PM and 7 AM from Thursday night to Sunday mornings, and ride-hailing companies agreed to share anonymized data of pick-ups and drop-offs in the area during the pilot.

The District saw a reduction in conflicts between pedestrians, vehicles, and cyclists because passenger and commercial loading now occurs directly at the curb, rather than in travel lanes. The success of the pilot has led to the implementation of 24-hour passenger and commercial loading zones in five more high-demand areas throughout Washington, D.C.

Manage curb space dynamically

Flexibly allocate curb space to adapt to different uses and users

Flexible curb use is key to accommodating the dynamic needs of the different uses and users of the curb. By allowing and planning for flexible uses, curb space can be utilized more productively throughout the day. Depending on the context, different demands are created for the use of the curb at different times of the day. Just as it is important to differentiate between mobility and non-mobility uses of the curb, we must differentiate within the types of mobility and non-mobility uses. Mobility uses facilitate the movement of people and goods, whether it is walking, bicycling, taking transit, or driving. Each of these mobility uses has its own spatial and temporal needs to facilitate safe and efficient travel.

Non-mobility uses include different types of access for people and fixed uses of the curb. This non-mobility space for access is constantly changing throughout the day between people arriving at their destination and then leaving. Non-mobility uses for access can include passenger loading and unloading zones, transit stops, taxicab zones, short term parking for customers, and commercial loading zones. Simply put, when the curb is dedicated to these uses, it sits inactive between uses, which can be brief moments when demand is high and extended periods when demand is low. As a result, the productivity of these uses can range from very efficient to very poor, depending on the time of day.

Understanding when the periods of high and low demand are will help determine the flexibility of that curb space. Non-mobility, fixed uses of the curb can include long term storage of vehicles, reserved or prohibited uses, and sidewalk cafes, parklets, streetscaping infrastructure, and green space. These fixed, non-mobility uses are often seen as the least productive when compared to how many people they serve, but are important when considering the context and in promoting the pedestrian realm. Balancing the flexible use of the curb between mobility and non-mobility uses will be an evolving challenge as the city continues to grow and the transportation industry evolves. Developing clear, consistent programs and guidelines to allow flexible, user-centric use of and enhancements to curb space should be a key goal for ensuring flexible curb management.



Streamline objects at the curb to improve safety and mobility

Coordinate the placement, number, and use of objects at the curb with natural features to realize multiple community benefits

Between considering the appropriate use of the curb and how it is flexibly managed, it is also important to remember how all of these moving or fixed parts fit together in the same space. The curb can become an overly crowded and complex space, making it an unsafe and unwelcoming environment. The challenge between appropriately regulating the space through signage and preventing a visually cluttered environment is real. Other temporary and fixed objects can add to the feeling of a public space being cluttered, such as where bicycles and scooters are parked or the placement of furniture. All of these features are necessary for appropriate wayfinding, creating a sense of place, and communicating the use of the curb, but require careful consideration within the limited right of way.

There are several steps we can take to confront these challenges. Coordination and planning allow small areas, streets, or districts to create and identify specific locations for street furniture, routes for wayfinding, or locations for multimodal parking. Review and enforcement of the use of right of way can help remove existing items that are not permitted or no longer necessary, as well as reduce the introduction of too many items into one space. Thoughtful and effective planning that considers the available space, different uses, and the safety and mobility of all users will help create spaces where multiple community benefits can be realized.







Transportation Demand Management Programming

Transportation demand management (TDM) is an approach to tackling congestion through strategies that reduce our impact on the transportation network rather than add capacity. These strategies focus on helping people use the existing infrastructure in place to walk, bike, share rides, or take public transit. They also aim to reduce peak travel congestion by encouraging alternative work schedules and telework to shift travel times. Spreading demand across time also aids in managing congestion and better uses our infrastructure.

Managing our transportation demand requires a coordinated effort of thoughtful land use decisions, parking supply coordination, curb management techniques, encouragement of shared mobility, and implementation of smart TDM programming and policies. These low-cost, near-term strategies can be deployed in a much shorter timeframe than multimodal infrastructure improvements and long-term land use changes.

TDM strategies can take on many forms. In Columbus, Ohio, all downtown employees are provided free public transit passes. In San Francisco, developers are required to incorporate TDM strategies into their projects, such as bundling transit passes into their leases,

Increased cycling, walking infrastructure, and public transportation helps keep the city more affordable and safer by reducing single motor vehicle travel."

-Community member

unbundling parking from their leases, or building shower amenities for bicycle commuters. In Aspen, Colorado, commuting is turned into a game and residents earn points toward local rewards for every non-drive-alone trip they take. In Austin, the Smart Trips neighborhood outreach program offers free transit adventures to teach residents how to use public transit for recreational trips. No matter the approach, TDM strategies are cost-effective solutions that aim to reduce drive-alone trips, increase public transit, walking, biking, scooting, carpooling, and vanpooling trips, shift driving trips away from peak travel times, or reduce the need to take a trip in the first place.

Indicators and Targets



Increase the understanding of transportation options (aside from a personal vehicle) and satisfaction of users to get around Austin (ride share, bus/train, bike, walk, etc.), reported by socioeconomic demographic measures



Increase the share of City of Austin employees commuting by walking, bicycling, sharing rides, or taking transit



Reduce vehicle miles traveled (VMT) per capita



Increase the share of Austin residents who work at home instead of commuting to work

Achieve 15% of Austin residents who work at home by 2039 (7.9% of residents worked at home between 2013 and 2017)



Increase the share of Austin residents who carpool to work

Achieve 11% of Austin residents who carpool to work by 2039 (10.8% of residents carpooled to work between 2013 and 2017)



Increase the share of work trips that are taken during offpeak hours

(51.6% of work trips leave home between 7:00 a.m. and 9:00 a.m.)



Increase the number of people reached by transportation demand management programming

Implement community-wide strategies to increase use of all transportation options and manage congestion

Encourage sustainable modes of transportation and discourage driving alone and single-purpose trips to maximize the use of our transportation network

Our community is what makes Austin such an attractive place to live, play, and work. As Austin continues to grow, we want to ensure that people have the resources they need to travel around in a safe, efficient, and affordable manner, that also contributes to (rather than deteriorates) the vibrancy of our community. In order to succeed, we need a TDM program that creates the cultural shift necessary for our community to use our existing transportation network in the most efficient ways. Developing a TDM program also complements the longer-term capital investments discussed in other parts of this plan by providing more affordable, near-term, non-infrastructure strategies to help meet our broader transportation objectives and policies.

I feel like I now have better resources to share with friends and family so we can use public transportation options together."

-Smart Trips participant

Our first step toward creating a strong TDM program is to become a resource for how to get around Austin. We want to work toward an outcome in which our community fully understands the transportation

options available to them and, more importantly, feels comfortable using them. Only then can we achieve the remaining policy objectives outlined in the prior section. In order to do so, we must develop comprehensive educational programs and targeted outreach. TDM is not a one-size-fits-all solution, so education, outreach, and other strategies must be tailored to fit each individual user's needs. A strong TDM program will tailor strategies for: residents and their daily trips and errands, commuters/employees and their employers, students and school staff (from the elementary to university level), and visitors. In addition, the program should be combined with a strong focus on collaboration that specifically identifies how it can improve transportation equity.

This policy section will provide more detail on the following key TDM strategy topics:

- · Residential-focused
- · Employer-, school-, and visitor-focused
- Inter-departmental and inter-agency
- Transportation equity

National Best Practices

Columbus, Ohio

Through a partnership of the regional planning commission, transit agency, and downtown property owners, Columbus, Ohio is easing downtown congestion by offering free annual bus passes to the more than 40,000+ employees who work downtown. In addition, they run a free circulator shuttle that connects employees from downtown to a retail and commercial hub known as the Short North arts district. They also made it easier for anyone to take transit by upgrading downtown bus stops to display real-time arrival information.

District of Columbia

The District of Columbia Department of Transportation provides the community with a one-stop-shop website called goDCgo. This resource caters to residents, employers, and visitors, and provides all the multimodal transportation resources needed to get around town. The goDCgo website is also where developers and businesses can understand how to comply with TDM requirements set by the district.

Seattle, Washington

Downtown Seattle is seeing significant reductions in their drive-alone rates, while the number of downtown jobs continues to increase. TDM is a large contributor to this success. Downtown Seattle businesses invest over \$100 million per year in commuter benefits for commutes other than driving alone. Many employers utilize subsidized bulk transit passes, which account for half of the daily public transportation boardings. King County Metro runs the largest vanpool program in the nation, and employers comply with a statewide commute trip reduction law.

Residential-Focused TDM Strategies

Recognizing that most trips start from home, TDM strategies that focus on residents are a key element to a strong TDM program. The Smart Trips program focuses on shifting transportation behaviors at the residential level. Following national best practice TDM programs, Smart Trips Austin is designed to engage communities to try active transportation options and shift away from drive-alone trips. The program focuses on personal interactions to educate individuals on their transportation options and to overcome barriers to active travel. Transportation toolkits are distributed to households and this educational information and incentives are further solidified through community-based active programs such as group bike rides, transit adventures, and group walking activities. Information is tailored to meet the needs and interests of each household through target segmentation, customized messaging, and one-on-one interactions with Smart Trips Ambassadors that have been hired from the neighborhood. Travel choices are measured before and after implementation to evaluate program effectiveness. Much of the success of the program relies on behavioral nudge/incentive-based programs, showing the true cost of driving, and utilizing strong local policy to demonstrate the multiple benefits of sustainable transportation modes and how these benefits align with other City policies and goals.

National Example: Transportation Wallet

The Portland Bureau of Transportation teamed up with Northwest and Central-Eastside Parking Management Districts to encourage walking, taking transit, and bicycling in the districts. Residents and employees of the district can purchase an active transportation "wallet" for 85% of the cost of a parking pass or for free in exchange for their parking pass. Included in the wallet is access to the TriMet light rail and bus, the Portland streetcar, and a membership to Portland's bike share, BikeTOWN.

The Transportation Wallet (with heavily discounted transportation options) is funded by eliminating free parking and adding surcharges to parking permits in the districts. The program also frees up parking for those whose only option is to drive to these districts. In the future, the program hopes to expand citywide, include dockless mobility options, and deliver passes digitally.

Smart Trips Austin

The Smart Trips Austin program has demonstrated a successful decrease in drive-alone car use at a local level. In addition, participants have become more aware of other transportation options and are willing to integrate these modes into their trips more often.

Smart Trips Central South Program Results

Drive-alone mode share decreased 3.7%





3 in 4



↓3.7%

(*)

1 in 3

A DA DAD

The percentage of respondents *using transit* three days prior to taking the survey increased 2 percentage points.

Survey respondents feel *more aware* of transportation options in Austin because of the program.

Respondents made an average of 1.4 fewer drive-alone trips per week after the program Survey respondents reported *increasing their use* of transportation options because of the program.



Just talking about using better options (than driving myself), with another person, helped me to commit to do so—at least 2 days/weekly."

-Smart Trips Central South participant

I have ridden buses in other cities but had never tried the bus here. I really wanted to learn but felt intimidated to try it for the first time. A Smart Trips group bus outing to the Central Library was just what I needed! I asked lots of questions and since then I have ridden the bus every time I've gone to the Central Library."

-Smart Trips Eastside participant

Employer-, School-, and Visitor-Focused TDM Strategies

Trips generated by employers, schools, and large events all need to be managed in unique ways. Tailored programming and policies can ensure that commuters have a wide range of transportation choices, that students and staff have transportation support from their schools, and that visitors can explore Austin in a sustainable way.

An example of a visitor policy is the special events ordinance that Austin City Council passed in 2018. The Office of Special Events, in collaboration with Austin Transportation, created a framework for requiring large events to accommodate and encourage sustainable transportation options to and from events. Example strategies include requiring a minimum amount of bicycle parking, discounts for traveling sustainably, prioritizing multimodal access, creating temporary park-and-ride lots, and organizing bike rides to events.

National Example: Arlington Public Schools

In 2013, Arlington Public Schools in Virginia launched APS Go!, a community-wide, school-driven process that raises awareness and provides incentives, information, and encouragement related to walking, biking, transit, car/vanpooling, and school busing. The program, which was the first initiative of its kind in the country, focuses on the transportation needs of all students and staff while also considering the broader interests of the communities located around school sites. Arlington Public Schools developed the APS Go! initiative as a comprehensive and long-term TDM plan for the district. APS Go! is a part of the school district's efforts to proactively assess the needs of the community, respond to growth and demand, and develop forward-thinking transportation programs.

Mayor's Mobility Challenge

The Mayor's Mobility Challenge was developed as a collaboration between the City of Austin and Movability, the region's transportation management association. Movability is dedicated to working hand in hand with employers to improve the region's economic vitality by connecting commuters with mobility options that save time and money. The Challenge launched as a pilot program in 2014 in an effort to reduce congestion in Austin by working with employers to develop customized mobility plans. Since this time, over 60 employers with over 120,000 employees have pledged to participate.

One key downtown employer implemented several innovative transportation solutions as part of the Challenge. It created an employee-led Transportation Committee and worked through Movability to host quarterly "transit adventures" with the Capital Metropolitan Transportation Authority (Capital Metro). The company also developed a parking incentive plan offering monthly stipends in exchange for their downtown employee parking spaces.

How have Mobility Challenge Companies changed their employee transportation benefits and programs?*

75% of companies

provided free, discounted or at-cost Capital Metro transit passes

40% of companies

gave cash to employees to give up their parking spot

25% of companies

increased the cost of parking for each employee

93% of companies

plan to begin offering commuter benefits as a result of participating in the Mobility Challenge

*2015 - 2017 Mayor's Mobility Challenge participants surveyed anonymously (16 respondents)

Inter-Departmental and Inter-Agency TDM Strategies

A strong TDM program will succeed with collaboration. It can be challenging to change behaviors that have been ingrained in our everyday actions. It will take a coalition made up of local and regional allies to leverage policy support and increase program outreach. Strategies should be developed and implemented in partnership with departments throughout the City government, as well as local and regional partners.

The City's current Chapter 380 Performance-Based Contracts Policy (or the "incentives policy," as it is more commonly known) incentivizes businesses to locate, grow, and hire within Austin. The new vision for the policy includes a focus on reflecting today's economic conditions and addressing current community challenges. The policy includes support for small businesses, incentives for employers seeking to hire socio-economically disadvantaged individuals, and recruiting external businesses that provide community benefits beyond jobs, including transportation. The specific transportation strategies that complement the vision of this incentives policy are included in Appendix E. Examples include locating the company in a high-frequency transit corridor and incentivizing employees' use of alternative transportation modes.

National Example: San Francisco TDM Ordinance

San Francisco's transit agency, planning department, and economic development office collaborated on the San Francisco TDM Ordinance. Its primary purpose is to reduce vehicle miles traveled (VMT) generated by new development projects. The ordinance is designed to work with developers to provide more on-site amenities that will encourage smarter travel options so people can get around more easily without a car. The intent is to shift more typical car-dependent travel practices by providing a series of development-focused TDM measures. Some strategies include offering fewer parking spaces relative to surrounding neighborhoods, supplying more bicycle parking and amenities, subsidizing transit passes, and implementing delivery services facilities.

Achieving transportation equity through TDM Strategies

The TDM program should also be used as part of a multi-pronged approach to help reduce inequities and alleviate affordability issues in Austin. Studies have shown that affordability is not only impacted by housing costs but also by transportation costs. Transportation can be a social equalizer. When given access to low-cost transportation options, community members can reallocate funds that would have been spent on car ownership, insurance, maintenance, and gas on other costs of living instead.

Smart Work, Learn, Play

The Housing Authority of the City of Austin (HACA) offers a program called Smart Work, Learn, Play, which aims to connect underserved communities with various opportunities by increasing their ability to use online public services, including those that increase access to transportation. HACA's digital inclusion program seeks to put an internet connection, digital literacy training, and computers in every housing authority property. The program recruits "mobility ambassadors," HACA residents who meet other residents, provide one-on-one training on how to use various digital tools to access transportation options, and advocate for transportation improvements.

Downtown Employee Subsidies

To reduce the need to own a car, the Palo Alto Transportation Management Association (TMA) subsidizes Lyft rides for downtown employees who make less than \$50,000. This allows service workers who either start or end shifts outside of public transit hours to utilize public transit on one leg of the trip, without the risk of being stranded downtown if their shift ends too late. Each month, the Palo Alto TMA pays up to \$10 per ride for up to 15 rides per employee. In addition, the TMA provides free monthly transit passes for downtown workers who make less than \$70,000 per year.

Lead by example in offering, promoting, and implementing mobility options for City of Austin employees

Provide comprehensive transportation benefits to all City employees to encourage sustainable travel behaviors

The City of Austin is one of the largest employers in Austin, so the manner in which its employees commute to work and home can have a large impact on traffic conditions. For well over a decade, the City has offered commuter incentives, including subsidized vanpool and transit passes. In 2017, the City established an official commute trip reduction program called Commute Connections housed in Austin Transportation. Also in 2017, Smart Commute Rewards was introduced as a new commuter incentive program under Commute Connections.

The City of Austin is leading the way by proving that City employees can limit drive-alone trips and help in managing Austin's traffic congestion. Since 2018, the City of Austin has been recognized as one of the Best Workplaces for Commuters (BWC), offering exceptional sustainable commuting options that meet national standards of excellence. As a BWC participant, the City strives to continually improve its commuter programming by offering and encouraging employees to take a sustainable commute to work by using active transportation, carpooling or vanpooling, or taking transit. Sustainable commutes help meet the City's environmental and sustainability goals by limiting emissions and waste, minimizing consumption of non-renewable resources, and minimizing the use of land. Additional peak travel time trips are reduced through employees participating in telework, working alternative hours, and working compressed schedules.

As employees, we learn so much about sustainable commuting options and reducing our carbon footprint. That's not something that my former employer ever discussed or encouraged."

-Austin Public Works Employee

The City collaborates regularly with several community organizations, such as Movability, the Capital Area Council of Governments, and Capital Metro with the objective of identifying and promoting the transportation solutions that best serve employees' needs. When employees commute sustainably, they inspire others to do the same, causing a ripple effect that ultimately supports better traffic congestion management and preserves air quality across the community. For example, the City of Austin should lead the way to offer parking cash-out programs (one of the most effective TDM tools) to its employees as a signal to other large employers in the downtown area. Through Commute Connections, we collaborate with TDM professionals nationwide to share best practices that contribute to building an exemplary commuter program.

Commute Connections

The Commute Connections program helps City of Austin employees understand their sustainable commute options and take action to reduce their drive-alone work trips, especially during peak travel times. The ultimate goal is to minimize the impact these commutes have on traffic congestion and air quality in our region, whether through incentives or disincentives. Austin Transportation houses staff that consistently work on developing new commuter tools and informing all City employees about sustainable commute options. These employees work with other City employees one-on-one and through department-specific commute consulting events. Additionally, several offices and departments have established mobility coordinators to promote and discuss trip reduction strategies. This structure helps expand the reach of the program and increase employee participation.

While Austin Transportation oversees the Commute Connections Program, several departments provide tools for employees to be successful at reducing their drive-alone trips. The City ensures that employees have access to numerous mobility services, including an online employee commute resource center, commuter training opportunities, car-sharing through car2go or Zipcar, and emergency ride home options. Many employees that commute using active transportation modes have access to bike lockers and showers. Employees choosing to ride-share may be matched with a carpool buddy at myCommuteSolutions.com or join a vanpool and enjoy a monthly subsidy. Transit riders can use a free annual pass to travel on any Capital Metro route.

Austin Transportation plans to enhance Commute Connections by developing and implementing a commute trip reduction plan that is meaningful to all City offices and departments. The plan will clarify specific actions offices and departments can take toward motivating employees to travel differently, with the intent to improve overall employee commute reduction. The plan will also provide a clear vision for program oversight that would include improved tracking, training, incentives, and accountability mechanisms. The plan is expected to house realistic and achievable goals, with data collection and analysis that will be presented in an annual progress report.

Smart Commute Rewards

Smart Commute Rewards is the incentive arm of the City's Commute Connections Program. Smart Commute offers City of Austin employees various incentives to adopt a commuting habit that incorporates sustainable transportation, even for just one day a week.

In 2017, the City of Austin launched a six-month pilot project that allowed regular full- and part-time employees the opportunity to earn leave time for logging sustainable commute trips (bicycle, walk, carpool, vanpool, transit, or telework) in a trip-logging application. Ten percent, or approximately 1,300, of the City's employees, participated in the program, logging over 86,000 trips. Over the pilot period, we saw more than 50% of participants make a positive shift to reduce their drive-alone trips, including a doubling of carpool and vanpool trips. Austin Transportation has a vision to launch a year-round version of the leave time reward, sustaining and potentially increasing the motivation of participating employees. Smart Commute Rewards also hosts a number of contests during the year to help keep individuals motivated, with prizes ranging from gift cards to travel tumblers. The effect of Smart Commute trips goes beyond just helping to manage traffic congestion. Commuters realize health benefits and gain a sense of pride in helping to preserve the environment.

The success of Smart Commute Rewards has drawn interest from organizations across the country. In November 2017, the Capital Area Council of Governments celebrated the organizations and individuals who have made significant contributions to the region's air quality at the Air Central Texas Awards. Smart Commute Rewards received the 2017 Air Central Texas Public Sector Award. In 2018, the Association for Commute Transportation awarded Smart Commute Rewards with a National Award in the commuting option category of carpool for the program's achievement of doubling carpool trips.



Everybody knows that they should carpool, bike, or bus, but most times they need the extra push. The rewards program is an awesome forcing mechanism to encourage folks on the brink of changing their habits to actually make the change."

-Watershed Protection Department Employee



SMART COMMUTE REWARDS launched to City of Austin employees on May 1, 2017. The program offers employees incentives (administrative leave and prizes) for taking a sustainable commute.* Smart Commute generated some impressive 2017 statistics and received the Air Central Texas Public Sector award for its innovative approach.

Number of employees registered:

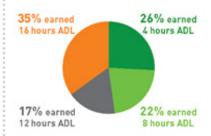


10% of the regular and civil service workforce

Administrative leave (ADL) participation: 990



606 Smart Commute Rewards participants earned ADL



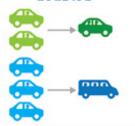
421 individuals took the survey



53% of participants made a positive shift to reduce their drive alone trips



Carpool and vanpool trips doubled



Nitrogen oxides reduced: 3 tons Carbon dioxide reduced: 380 tons



Calories burned: 2,982,385



Questions?

Email SmartCommute@AustinTexas.gov or call 512-974-1150.





^{*} Definition: A sustainable commute means employees leave their drive-alone habit, for even one day a week, and take a different mode to work.



Shared Mobility

Shared mobility encompasses transportation services and resources that are shared among users, either at the same time or one after another. These services can include public transportation, taxis, bike-sharing, carsharing, ride-hailing, ride-sharing, scooter-sharing, shuttles, circulators, and even some commercial delivery vehicles. From high-capacity public transportation, to shared and on-demand mobility services, to technology that allows our vehicles and infrastructure to be better utilized by more people, shared mobility offers many potential solutions. Whatever form it takes, shared mobility helps more people use our existing transportation network, and managing our demand this way helps to manage congestion and improve travel time reliability.

Shared mobility can have an even larger impact on our mobility landscape when it is paired with infrastructure investments and emerging technologies such as connected, automated and electric vehicles. Integrating our resources together can decrease household transportation costs and greenhouse gas emissions, help manage congestion, and improve safety and travel choice for Austinites.

We want to approach and use shared mobility technology proactively, thoughtfully, and in partnership with other public and private sector

providers to advance our community's mobility goals. By connecting more people with more ways to get where they want to go safely and easily, shared mobility will be a key to meeting our mobility needs and goals for years to come.

Shared electric vehicles, buses, transit... Great starting point to make Austin a center for innovation and set a best practice for smart cities infrastructure and placemaking."

-Community member

Indicators and Targets



Increase the usage of shared mobility solutions (such as bikesharing, car-sharing, ride-hailing, ride-sharing, scooter-sharing, etc.)



Increase the share of shared mobility trips that originate or end in areas that are historically underrepresented and underserved



Increase the coverage of shared mobility solutions



Increase the density of shared mobility vehicles



Increase the number of Mobility Hubs

Establish at least 1 Mobility Hub within a 1/2 mile of each Imagine Austin activity center



Increase the capacity of park and rides

Emphasize and incentivize shared mobility solutions

Develop and focus robust shared mobility services and systems to provide first-mile/last-mile mobility solutions and increase shared trips on the transportation network

Promoting shared mobility has immediate community benefits of better managing our congestion, transportation costs, and emissions associated with driving alone. Individuals can benefit from having many robust shared mobility services available without needing to own a personal vehicle.

Shared mobility services that help get people from their front door to a high-frequency or high-capacity public transportation service are known as first-mile/last-mile solutions, because they make it easier to travel the first or last mile to the bus stop or train station. When shared mobility solutions work together with public transportation, more people can more conveniently connect to their destinations all around Austin.

To manage the demand we place on our transportation infrastructure, we will encourage the use of shared mobility to help us improve congestion and get the most out of our roadway, sidewalk, bicycle, and urban trail systems. Shared mobility comes with another benefit: increased social interaction with your family, friends, neighbors, coworkers, and people from all over the community. We emphasize shared mobility solutions not only for how they connect us to places, but for how they connect us to each other and our community.

Dockless Mobility Program

In 2018, dockless bicycles and scooters entered the Austin transportation network providing a completely new mode of transportation for the community. There are now more than 17,000 dockless bicycles and electricassist scooters available to use throughout the city. Since April 2018, close to two million trips have been taken on electric scooters alone. Over this time period, the Austin Transportation Department initiated a three-part management system that addresses regulation, education, and street design to best manage the relative speed and location of these micromobility devices on public right of way. This process has resulted in new rules that govern the regulation of market-driven, micromobility solutions in the public right of way, an education campaign on how to use these devices safety, and deployment of parking solutions for bikes and scooters. This work to integrate and evaluate new options in our network continues to evolve and improve. For example, in December 2018, the City of Austin partnered with the National Centers for Disease Control and Prevention to initiate the firstever study of electric assist scooter injuries to better understand the safety and prevention for this new mode. As more information is gathered through this safety study, the City of Austin will continue to adapt its three-part management model to continue integrating this emerging mobility solution while prioritizing the safety of vulnerable users.

Promote seamless transfers between transportation modes and systems

Encourage easy and convenient transfers between transportation modes to promote multimodal solutions

A key missing piece in Austin that would help us emphasize shared mobility and manage demand is a universal source of transportation information with an integrated payment system. For many people, the convenience of driving their personal vehicle outweighs hassle caused by transferring routes or modes. The need to carry multiple forms of payment for different types of fares creates an additional obstacle. If we can reduce barriers that prevent people from choosing multimodal mobility options, we will be better equipped to manage congestion and demand.

To promote a truly multimodal transportation network in Austin, we need a seamless way to pay for transportation services, find information on routes and schedules, learn about potential delays, and transfer between one trip or mode and the next. Strategies we can pursue with public and private partners to promote these seamless transfers include technology applications for smartphones and integrated fare cards. This integrated strategy could also include a matching service to help people join carpools or to share personal vehicles with other community members. Although a universal app and payment method would help create seamless transportation transfers for many Austinites, we will also need to find additional solutions that allow community members without a smartphone or bank account to be able to use our transportation network fully.

By promoting more convenient ways to access and use all the transportation options Austin has to offer, affordable options become easier to access and use, which can help reduce a household's transportation costs. When more people can use more transportation options more easily, and fewer people need to own and drive personal cars, we can better reach our goals of improving affordability and travel choices while managing congestion.



Support the creation of Mobility Hubs

Support and develop Mobility Hubs of different scales to serve as connection points between public and private transportation services and multimodal transportation options

Mobility hubs play a vital role in the network by facilitating safe and easy connections between shared travel modes, as places for people to switch from a personal vehicle to a shared mobility service. Mobility hubs are more than a typical transit station or park-and-ride facility. They create welcoming and attractive places for travelers that include amenities, information resources, and a variety of both public and private transit services. Mobility hubs can be coupled with placemaking efforts, creating safe, accessible and connected places for people to engage with fellow passengers and the wider community.

By creating mobility hubs integrated with public transportation, we can offer a wide variety of first-mile/last-mile options for people to use. Some of the services located at mobility hubs could include bike-and scooter-share, car-share, access to shuttles, and ride-hailing services. Mobility hubs should also incorporate different electric vehicle charging devices for locals and visitors alike. These mobility hubs could incorporate services like package pickup so that people can pick up mail along their trips, reducing the overall number of deliveries drivers make to individual addresses.

Mobility hubs are community spaces where we can share mobility knowledge with each other. Community programming such as repair and maintenance classes, at mobility hubs, can help people learn how to care for their personal vehicles like cars and bicycles. These spaces could also empower community members to try out and use other shared mobility options, such as showing people which bus route would be best for their trip.

Mobility hubs must emphasize equity and access as integral design components to help guide the modes and services available at each unique location. Mobility hubs will offer a different set of services based on where they are, how many people use them, and what the needs of specific communities are, but they will all be high-quality places where we can take advantage of all the options that shared mobility has to offer.



Photo credit: Capital Metro

