

TRANSIT STRATEGIES

ACCESS TO TRANSIT

Every transit trip starts and ends with a trip by another mode, and for this reason, providing safe, convenient, and comfortable access to transit stops and stations is fundamental to serving existing transit customers and attracting new riders. Seamless and integrated pedestrian, bicycle, drop-off, and parking infrastructure supports all forms of multimodal transportation, including walking, biking, carsharing, carpooling, and park-and-ride facilities.

Today, the conditions in parts of Nashville and the Middle Tennessee region make access to transit a challenge for many people. Non-existent or disconnected sidewalks, wide roadways with no pedestrian crossings, a lack of bicycle infrastructure, and limited kiss-and-ride and park-and-ride facilities can make it difficult for people to reach transit. There are also examples of high-quality connections throughout the region—areas such as downtown Nashville and close-in neighborhoods typically have better walking and bicycling conditions than outer areas.

By working with municipal partners to improve connections and access to transit for people of all ages and abilities traveling by all modes of transportation, Nashville MTA and RTA can help to increase transit ridership and make transit an attractive choice for more people.

BUS STOP IN NASHVILLE WITH DEAD-END SIDEWALK



BIKE LANE CONNECTING TO TRANSIT IN NASHVILLE



TYPES OF ACCESS TO TRANSIT

There are four primary ways that people access transit:

1. Walking (including using a mobility device, such as a wheelchair)
2. Bicycle

3. Getting dropped off
4. Driving and parking a vehicle.

PEDESTRIAN ACCESS

A good pedestrian environment is an essential foundation for good access to public transit. As such, it is critical for attracting new riders, increasing ridership among existing passengers, and improving the overall travel experience. The quality of the pedestrian environment is often a deciding factor in choosing whether or not to take transit, especially for those with other options.

Pedestrian access to transit refers to the extent to which the pedestrian environment, amenities, and infrastructure support people in accessing transit services. Well-designed, pedestrian-oriented infrastructure increases the safety, comfort, and enjoyment of the entire transit trip. Gaps in the sidewalk network, stops along high speed roads, and insufficient waiting areas all contribute to less attractive transit facilities and can deter transit riders.

HIGH-QUALITY PEDESTRIAN ENVIRONMENT (LOWELL, MA)



BUFFERED BIKE LANE ON BUS ROUTE (SEATTLE, WA)



BICYCLE ACCESS

The quality of bicycle amenities, facilities, and the environment affect access to transit. Improving bicycle access to transit supports existing ridership levels and attracts new transit passengers by providing additional connectivity to other modes and enhancing the overall travel experience. Targeted coordination of policies, programs, and implementation among agencies and private entities is required to successfully integrate these modes of travel. Bicycle access strategies include safe travel conditions to access transit via on-street facilities or trails, stop amenities such as bike parking, and integration with transit vehicles.

KISS-AND-RIDE / PASSENGER PICK-UP AND DROP-OFF

Many railway stations and airports feature an area in which cars can drop off and pick up passengers. These “kiss-and-ride” facilities allow drivers to stop and wait, instead of using longer-term parking associated with park-and-ride facilities. A passenger drop-off at a transit stop or station is another important way that people access transit. Especially in cases where people cannot reach a transit stop on foot or by bike, a family member, friend, or carpool might help to make that connection. Ensuring that transit stops and stations have safe, convenient, and well-marked areas for drop-offs is important and can be accomplished through station and stop design, including wayfinding.

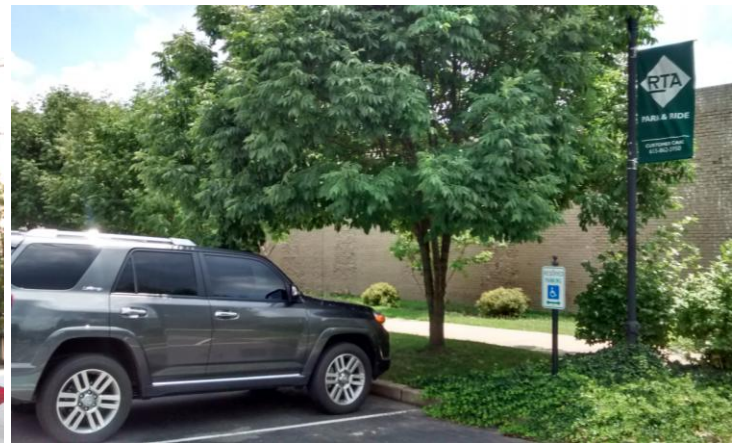
PARK-AND-RIDE FACILITIES

Park-and-ride lots are parking lots or parking garages used by transit riders or carpoolers. Park-and-rides are primarily used by traditional commuters who park in the morning, board a transit vehicle, and return in the evening. Park-and-rides can be served by a single route or by several routes serving multiple destinations. Carpoolers and vanpoolers may also use park and ride lots to meet and start their trip. Park-and-ride lots might be either owned by the transit agency, or there might be an agreement between the transit agency and a private operator to allow transit customers to use the lot. Many of the park-and-ride facilities associated with Nashville MTA and RTA service are “handshake” agreements with facilities such as churches, shopping malls, or retail stores. Regardless of the approach used, park-and-ride lots should be well signed, well lit, and provide easy access to the bus boarding location.

PASSENGER PICK-UP AT RAIL STATION (METUCHEN, NJ)



RTA PARK-AND-RIDE SPACES (SPRINGFIELD, TN)



WHAT'S IMPORTANT ABOUT CONNECTIONS?

Regardless of the mode of transportation that a person is using to access a transit stop or station, the connection must be safe, convenient, and legible.

- **Safe:** Safe connections are those that do not put users (people on foot or on bike) in danger of collision with a motor vehicle. This means providing the right facilities, both along the roadway and across it. Safe connections are also those that make people feel secure, with good lighting both at transit stops and along the way to the stop. This can also mean providing secure bicycle parking at stops and stations so that passengers aren't worried about their bicycle getting stolen while they are on their transit trip.
- **Legible:** When multiple modes come together, it is important that everyone can easily find the areas they need to use and access. Wayfinding is important for improving pedestrian and bicycle access to transit stops and stations, but good signage at the stop is equally important. Someone being dropped off at a transit station should be able to tell very easily where they can get out of the vehicle and then reach their bus. And a commuter using a park-and-ride lot should be able to quickly identify where they should park so they don't get a ticket during the day.
- **Convenient:** People must find their multimodal connections to transit convenient, otherwise they are unlikely to use transit if other options are available. For example, if a person has to walk five blocks out of their way to reach a signal in order to cross the street to the transit station, they are less likely to walk to the transit station. And if a person who wants to use a park-and-ride facility can't find the lot or doesn't know which spaces are available for transit riders, he/she is likely to just stay in the car rather than trying to use transit for part of their trip.

PEDESTRIAN CONNECTIONS

Pedestrian infrastructure includes an array of amenities and improvements, such as wide and textured sidewalks, level boarding features, curb ramps, benches, lighting, signage, building overhangs, travel information, wayfinding signage, and bus shelters. When well-designed, these types of pedestrian infrastructure can help to increase the safety, comfort, and enjoyment of the entire transit trip and promote access to transit. The quality of the pedestrian environment is also influenced by the presence of street trees and landscaping, active retail uses at street level, outdoor café seating, and public art.

By requiring that transit facilities, infrastructure, and equipment be accessible to all people, the Americans with Disabilities Act (ADA) ensures that a certain baseline of accessibility must be met. However, many cities and transit authorities are working together to provide higher quality pedestrian amenities and greater levels of accessibility than required by ADA to create transit-supportive environments.

Cities have found that focusing pedestrian improvements at transit facilities and beyond can be an effective way to increase transit ridership. Studies report that improving pedestrian conditions can decrease the frequency of short automobile trips and increase transit mode share. Research by the Transit Cooperative Research Program (TCRP) found that many pedestrians are willing to walk between one-half and one mile to access transit. Walkable communities also provide public health benefits by increasing physical activity.

DESIGNING STREETS FOR PEDESTRIANS

Examples of infrastructure and amenities that can help to improve pedestrian access to transit are described below. Not every transit stop or station needs all of these improvements to be accessible; however, a sidewalk or walking path and a safe crossing are critical for all types of stops and stations.

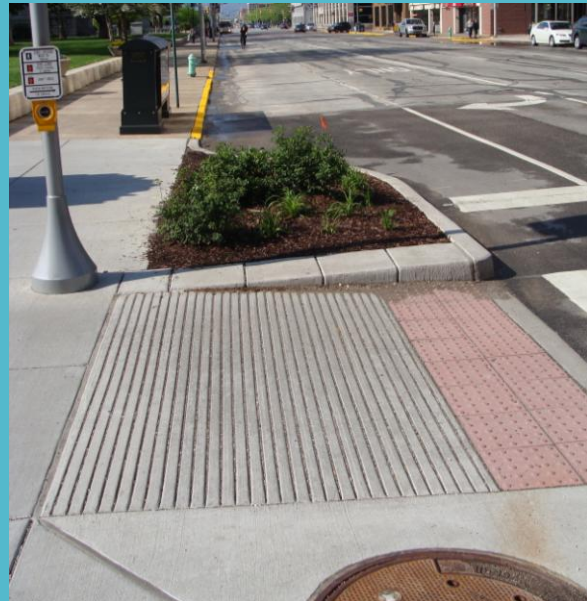
- **Wide Sidewalks:** Continuous sidewalks should be at least 4 feet wide and seamlessly connected to the sidewalk network in the area. A wide and accessible sidewalk network should be complete within a half-mile of every transit stop and station.
- **Curb Extensions:** Streets that have on-street parking typically have a required set-back from an intersection to increase visibility. This “dead space” at the intersection can be rededicated to expand the pedestrian realm and reduce crossing distance. Curb extensions also improve pedestrian and motorist sightlines at intersections and help manage vehicle turn speeds.
- **Pedestrian Refuges:** Where there is higher volume automobile traffic or higher speeds present, pedestrian refuge islands, center medians, bollard or planter protection, on-demand push button pedestrian crossing lights, and curb extensions and bulb-outs should serve as traffic calming devices.

Best Practices in Pedestrian Access and Connections

Wide Sidewalk at Bus Stop (Columbus, OH)



Curb Extension, Signal, Ramp, and Landscaping (Indianapolis, IN)



- **Well-Marked Crossings:** Transitions and street crossings should be well-marked and preferably include raised crossings that prioritize pedestrians. Raised crossings are better for people walking and rolling and also serve as a traffic calming measure.
- **Signals:** All signals should have a pedestrian countdown and, if necessary, a push-button to allow a pedestrian to request a crossing. Pedestrian-only crossing phases at very busy locations—such as downtown—allow pedestrians to cross an intersection in any direction. Leading pedestrian intervals give pedestrians a few seconds of “head start” to claim the crosswalk ahead of turning traffic.
- **Traffic Calming:** Vertical and horizontal traffic calming can greatly improve the quality of the pedestrian environment. These features include road diets, speed bumps, speed tables, raised intersections, diagonal diverters, chicanes, traffic circles, and shared streets.
- **Universal Design and Accessibility:** Intersections should provide facilities that can safely move people of all ages and abilities across the street. Design elements like curb ramps, level landings and gutter seams, visible and audible signals, smooth surfaces, accessible push buttons (or default WALK phases), and signage that may help pedestrians navigate intersections should be integrated into intersection design.
- **Lighting:** Well lit crosswalks and sidewalks provide increased safety and security. In areas with many pedestrians, lighting at the pedestrian scale should be considered to better light sidewalks and walkways.
- **Wayfinding:** Street signs, maps, and unique area treatments—such as historical displays and public art—help pedestrians orient themselves and create interest and comfort. Streetscapes that are inherently easy to navigate invite travel by foot and make driver and pedestrian behavior more predictable and safer.
- **Land Use, Landscaping, and Amenities:** The environment beyond the street is also important to provide a comfortable and inviting pedestrian environment. Street trees and landscaping are another element of a walkable environment. Especially in warmer climates, such as Middle Tennessee, adding trees reduces the urban heat island effect and makes walking to transit stops and waiting for transit far more pleasant. Amenities include benches and drinking fountains, street-fronting doorways and windows, and buildings designed with pedestrians in mind, including spaces for street-level retail, varied façades, and interesting architectural features.

Best Practices in Pedestrian Access and Connections

Accessible Crossing (West Windsor, NJ)



Pedestrian Refuge (Tucson, AZ)



Marked and Signed Crossing to Transit Stop (Atlanta, GA)



PEDESTRIAN ACCESS IMPROVEMENT EXAMPLES

Boston Key Bus Routes Improvements

The MBTA recently made upgrades at stops that serve its 15 busiest bus routes. The upgrades were designed to make service faster, more reliable, and more accessible. A major focus of the program was improvements to stops—the consolidation of stops, access improvements, and better facilities and amenities.

The Key Bus Routes all serve high-density travel corridors, primarily in Boston, but also stretching to Arlington, Belmont, Brookline, Cambridge, Chelsea, Everett, Newton, Revere, and Watertown. Along each route, the MBTA worked with local communities on the changes, which included new bus shelters at 85 stops, benches, and trash receptacles. At many, curb extensions were constructed and sidewalks were improved. New signs and pavement markings were installed to provide better route-related details and to keep drivers from stopping or parking at bus stops. Finally, the improved bus stops were brought into compliance with the Americans with Disabilities Act to improve accessibility for seniors and people with disabilities.

MBTA KEY BUS ROUTE STOP IMPROVEMENT EXAMPLE

BEFORE



AFTER



New York Safe Routes to Transit Program

The New York City Department of Transportation's (NYCDOT) Safe Routes to Transit program identifies locations with poor access, especially for the most vulnerable populations: youth and older adults. The program implements pedestrian facilities to foster safer, more comfortable access to transit. Sidewalks to bus stops and crossing treatments near transit are prioritized for improvement to calm traffic and improve pedestrian safety. The program focuses on improving pedestrian access at:

- **Bus Stops Els (elevated subway structures):** Bus stops under elevated subway structures pose unique challenges as many buses are unable to get to the curb and pedestrians are forced to wait, board, and alight the bus in the middle of the street. At these locations, NYCDOT is altering the road geometry to improve pedestrian visibility, bus stops are being raised behind a new curb line, and traffic navigation is being improved using signage (see photos on next page).
- **Subway/Sidewalk Interface:** These projects improve sidewalks, crosswalks, and other parts of the walking environment around bus stops where walking is currently difficult. NYCDOT selected 23 priority subway stations to receive improvements after examining stations for narrow sidewalks and corners, inadequate signal timing, and traffic congestion.
- **Sidewalks to Buses:** This initiative implements sidewalk and other pedestrian improvements to improve access to bus stops. It includes the installation of new sidewalks, crosswalks, and bus waiting areas to facilitate walking and transit use.

BEFORE (LEFT) AND AFTER (RIGHT) OF A BUS STOP UNDER EL RETROFIT



Denver Transit Access Guidelines

Denver's Regional Transportation District (RTD) recognizes that, while the agency makes decisions regarding the siting and design of its facilities, access to and from its stops is beyond its immediate control. In recognition of this, RTD developed Transit Access Guidelines that establish design standards for access to transit stations and stops and outline the roles and responsibilities for different agencies with respect to pedestrian and bicycle access improvements.

The guidelines encourage access through a hierarchy of modes, in order of priority:

1. Pedestrians
2. Bus riders
3. Bicyclists
4. Short-term parking
5. Long-term parking

The guidelines are specific to transit modes including light rail, commuter rail, and bus transit. Specific design standards such as walk speeds, platform design dimensions, access points, path distances to entrances, and sight line considerations are included. The guidelines promote transit-oriented development principles and require that pedestrian-oriented design, density, and a mix of land uses be considered during review.

DENVER RTD STATION ACCESS GUIDELINES

GUIDELINE	RESPONSIBILITY	
	RTD	Non-RTD
Pedestrian-vehicle conflicts should be minimized or eliminated by separation through plazas, treatment of at-grade crossings or, as a last resort, overpasses and underpasses (when conditions such as high-volume arterials or freight railroad tracks are present).	X	X
Traffic control devices should facilitate the priority of pedestrian flow over vehicles at the station.		X
Pedestrian paths should connect the platform to other elements of the transit facility and the surrounding community. Since pedestrians will take the shortest route between points regardless of where designated, paths should use as direct a route as practicable and barriers (such as fencing or bollards) should be sufficient to keep pedestrians out of restricted areas and control vehicle and pedestrian access. Walk paths should be free of obstructions and sized appropriately for pedestrian loading.	X	X
Landmarks or points of reference should provide pedestrians with a continued sense of orientation and relationship within the space comprising the transit facility. Signage should be considered a supplementary system message to confirm the visual statements expressed by the legibility of the transfer facility design itself.	X	X
Plazas or open space that visually connect important components of the transit facility around its perimeter should be pedestrian in scale	X	X
Shelters should meet the needs of human comfort and convenience, as well as areas of refuge from excessive sun, wind, rain or snow	X	
Elements of the transit facility should be arranged to enhance clear observation by other pedestrians and security or police. Other security design considerations include appropriate lighting levels, unobstructed lines of sight, landscaping configurations that avoid concealment, and security camera location.	X	X
Landscaping, pavement color and texture, street furniture components, plazas, and kiosks should be designed to increase the attractiveness of the station facilities.	X	X
Paving surfaces should provide good traction to reduce the risk of slipping and falling	X	X
Vegetation, plantings or other greenscaping should be pedestrian scale	X	X
Public art should be utilized to make the station more attractive and provide a sense of identity	X	X
Transit functions such as bus stops and kiss-n-Ride should be considered for on-street configurations in TOD station areas if the public facilities are contextually appropriate (e.g., grid pattern streets with traffic control measures such as signalized crossings and medians, adjacent transit-supportive land use)	X	
Planners should encourage adjacent uses that activate the street and provide good ground-floor visibility to the transit facilities		X

BICYCLE CONNECTIONS

Connecting bicycle riders with transit routes significantly increases the geographic area that transit can serve. In many cases, bus stops are located further than the one-half to one-mile distance from home that most people are willing to walk to a bus stop. Bicyclists are willing to ride two to three miles to access transit, making bicycle access an effective way to extend the range of first/last mile connections to transit.¹

Transit agencies are finding that bicyclists are more willing to take transit when the systems provide bicycle amenities and market their services directly to them. The Portland Bureau of Transportation's Bicycle Program estimates that providing improved access for bicyclists increases the capture area of transit investments twelve-fold. Working together, transit agencies and local jurisdictions that develop a comprehensive approach to improving bicycling conditions and amenities can attract additional transit riders at relatively minimal cost.

There are a number of street design features that cities can use to improve cycling safety and comfort, including bicycle lanes, bicycle boulevards, cycle tracks, improved crossing treatments, signage, and traffic calming features. Bicycle parking and end-of-trip facilities, such as lockers and showers, are also important to bicycle riders. Roadway design features geared toward pedestrians—such as lighting, shelters, wayfinding, traffic calming, and road diets—also support bicycle access to transit stops. Studies have found that neighborhoods with high degrees of walking have higher levels of bicycling and transit use than those that don't.²

DESIGNING STREETS FOR CYCLISTS

Examples of infrastructure and amenities that can help to improve bicycle access to transit are described below.

- **Bicycle Boulevards:** Bicycle boulevards are low-traffic streets that have been optimized for use by cyclists. A variety of traffic calming elements and signage are used to reduce car volumes and speeds, fostering a safe bicycling environment. Bicycle boulevards often include features that allow cyclists to continue through intersections, while cars are forced to turn. Bike boulevards may use sharrows or shared-lane markings that communicate the presence of bicyclists to drivers.

Best Practices in Bicycle Access and Connections

Two-Way Cycle Track (Washington, DC)



Bicycle Wayfinding at Transit Station (San Francisco, CA)



B-Cycle Bike Share (Nashville, TN)



Bikes on Commuter Rail (Boston, MA)



¹ "Guidelines for Providing Access to Public Transportation Stations," Appendix B Assessment of Evaluation Tools, September 2011 http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_153AppendixB.pdf

² Ibid.

- **Bicycle Lanes and Boxes:** Bicycle lanes are another technique to provide dedicated space in the street for cyclists and to increase driver awareness to the presence of cyclists. Increasingly, cities are using colored pavement treatments to designate bike lanes, either by coloring the beginning of the lane or the entire lane. Colored lanes discourage drivers from entering the portion of the right-of-way dedicated for cyclists. Colored markings can also be used at key spots such as intersections and turn zones where cars need to cross a bike lane. Bike boxes allow bicyclists to wait ahead of vehicular traffic at an intersection, which provides additional visibility and keeps cyclists out of the path of right-turning vehicles.
- **Cycle Tracks and Protected Bicycle Lanes:** Cycle tracks are bicycle lanes that are physically separated from traffic but are located in the roadway. Cycle tracks are increasingly common throughout the United States, with many cities taking a staggered approach to implementation by using pilot projects to test their designs. They provide a buffer from traffic that creates a much greater level of comfort and sense of protection for cyclists. Cycle track facilities are either paired one-way facilities on each side of the street, or two-way wider facilities on one side of the street.

CONNECTING BICYCLES AND TRANSIT VEHICLES, STOPS, AND STATIONS

Using a bicycle to access transit allows the rider greater range and flexibility. While space on transit vehicles is often limited, having access to a bicycle at each end of the transit trip improves transit usability. In Nashville, the B-cycle bikeshare program allows users greater mobility and flexibility within Nashville by providing a rentable bicycle at one or both ends of a transit trip. However, many transit riders, especially those traveling greater distances to transit from neighboring communities, would prefer to ride their own bicycles to connect to transit.

Once cyclists reach a transit stop or station, they are typically faced with a decision to store their bicycle or bring it with them on transit. For many, weather protected and secure parking that provides confidence that the bike is safe for an extended time is a critical design feature. Some riders also want or need to bring their bike on the transit trip to complete the other end of the journey. If a traveler is uncertain about the presence of bike parking facilities at the station or whether transit can accommodate their bike on board, they are less likely to choose a bike-to-transit journey.

- **Bicycles Racks on Vehicles:** Most transit agencies provide external bike racks on buses, typically in the front of the bus. These racks flip up against the bus when they are not carrying any bikes. Most transit buses don't have onboard space for bicycles given narrow aisles, but bus rapid transit vehicles may have more room to accommodate bicycles. For example, Community Transit's SWIFT BRT vehicles have three doors, and bicycles can be rolled onto the bus and stored in onboard bike racks. Installation of onboard racks protects other riders by securing bikes, provides a more comfortable ride, and possibly results in shorter dwell times at stops.

Best Practices in Bicycle Access and Connections

Bikes on Bus (Nashville, TN)



Bikes Locker at DART Station (Dallas, TX)



Bus Then Bike Shelter (Boulder, CO)



Madison, WI Bicycle and Bus Lanes

A bicycle lane is traditionally located adjacent to the curb. An advantage of this design is that a bus-only lane can serve as a buffer and facility separator between the bike and auto travel lanes. However, buses and bicycles may “leapfrog” each other when buses pull to the curb to pick up and drop off passengers. Locating a bike lane to the left of the bus lane, as has been done in Madison, can help avoid such leapfrogging. An additional two to three foot buffer can be used to provide added separation between the bicycle and auto lanes. When there is not enough right-of-way for both bus and bike lanes, shared lanes can be used under certain conditions.



Chicago McDonald's Cycle Center

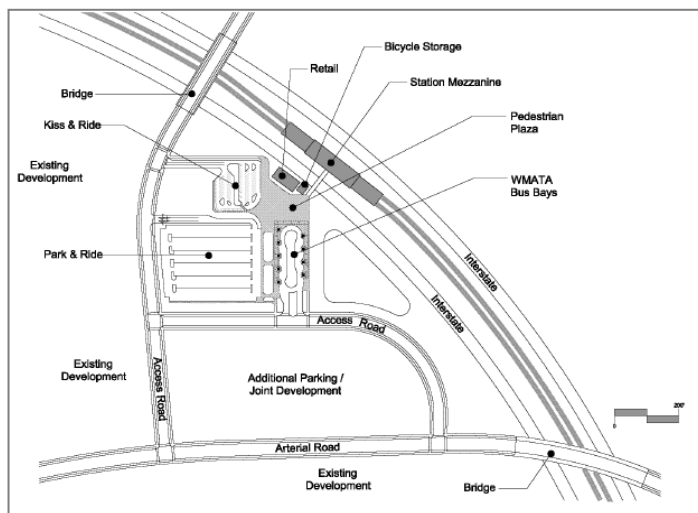
McDonald's Cycle Center in Chicago offers free bicycle parking, day lockers, and showers. The Cycle Center secured a \$5 million grant from McDonald's that covers all operations for 50 years. This public-private partnership that brought together the City of Chicago, federal funds for capital expenses, operations by the private Bike and Park company, and grant support by McDonald's is a great example of creative funding to build large bike storage facilities.

KISS-AND-RIDE / PASSENGER PICK-UP AND DROP-OFF AREAS

Kiss and ride is the “term of art” for a transit passenger drop-off zone. This activity typically occurs as close to the stop or station entrance as possible, with most drop-offs requiring only a few seconds. A designated kiss-and-ride location (such as a pullout) may not be necessary except for very busy transit facilities. However, at the other end of the commute, drivers often wait for arriving trains or buses for a period up to 15-20 minutes, thus potentially congesting station entrances and parking lots. Train stations especially can experience significant “ride-and-kiss” activity during peak hours, so planning for waiting vehicles is important.

Most major transit stations have some type of designated passenger drop-off and pick-up zone, although each agency and municipality handles the access needs differently. In the Washington, DC area, WMATA has developed “Guidelines for Station Access and Site Planning” that include examples for designing station access, including kiss-and-ride areas and facilities. In the Portland, OR area, TriMet's transit center maps include designated drop-off areas.

WMATA SAMPLE SITE DESIGN WITH KISS-AND-RIDE



TRIMET STATION MAP WITH DROP-OFF AREA



DESIGNING KISS-AND-RIDE AREAS

Kiss-and-ride areas include facilities for passenger drop-offs and pick-ups by automobile, as well as spaces for short-term parking. Considerations for designing kiss-and-ride areas are described below:

- A curbside lane for a taxi stand, private shuttle buses, and automobiles dropping off or picking up passengers should be **located closer to the station entrance than short-term parking**, ideally within 600 feet of the entrance.
- A kiss-and-ride should be designed to **separate modes whenever possible**. Kiss-and-ride vehicular traffic should not be routed through park-and-ride areas or vice versa. Pedestrian and bicycle access to the station should not be impeded by a kiss-and-ride area.
- A kiss-and-ride facility should be designed to **maximize vehicle turnover**, facilitate traffic flow, and avoid traffic conflicts. The area should typically be designed for one-way traffic flow and allow for re-circulation.
- For optimum function, the kiss-and-ride facility should have a **direct visual connection with the station entrance**, where a driver waiting in an automobile can quickly locate their passenger exiting the station.
- Kiss-and-ride facilities must be **convenient for both pedestrians and automobiles to encourage use**. If they are not convenient to use, too congested, too remote from the station entrance, or have poor visibility, motorists and taxis will find another location near the station entrance for pick-up/drop-off activity that may cause undesirable conflicts with other traffic, including transit.



PARK-AND-RIDE FACILITIES

Park-and-rides are ideal for communities that have commute patterns with a large number of drivers who travel to the same concentrated area (such as a downtown or other high-density employment district). Park-and-rides reduce demand for parking in the downtown area, decrease roadway congestion, and decrease the operational costs of providing transit service to dispersed residential communities on the edges of urbanized areas.

Park-and-rides work well at attracting choice riders and people who primarily use automobiles to access transit. These facilities are best located away from the city center and in catchment areas of less 6,000 people per square mile (4-5 dwelling units per net acre).⁵

Both Nashville MTA and RTA have park-and-ride facilities throughout the region, although the majority are not owned by the agencies. They are typically lots that are shared with another use—such as a church or shopping center—and are often located in areas that are difficult for transit to access. The development of park-and-ride lots in this manner reduces costs, but often results in lots being located in places that are inconvenient. Ideally, park-and-ride lots should be located along a line between where people live and where they are traveling to avoid out of direction travel that increases total travel times.

At the present time, most RTA park-and-ride lots are completely unmarked, with no indication that park-and-ride spaces or express bus service is available, no designated bus stops, and no information on available services. Some park-and-ride lots do have signage, but even these lots do not have designated bus stops or service information. The lack of information increases uncertainty among potential riders about whether the service actually exists, and for first time riders, about whether they are at the right place.

⁵ TCRP Report 165. Transit Capacity and Quality of Service Manual, Third Edition. 2013.

DESIGNING PARK-AND-RIDES

For a park-and-ride facility to maximize the number of riders it will attract, it must be conveniently located and easy to find, provide adequate parking, and feel safe and secure.

- **Convenient Location:** Park-and-rides should be located close to freeways and arterial roads to provide easy access for passengers and transit vehicles alike. If a passenger has to travel out of his or her way to reach a park-and-ride lot, the likelihood of that person using transit significantly decreases. A park-and-ride lot that is located along a person's natural path of travel is another encouragement to park the car and try the transit service.
- **Easy to Find:** A park-and-ride facility should be designated on a transit or route map, with a specific address whenever possible. The facility should be well signed, making it easy for a potential transit rider to identify the proper place to park and the right place to wait for the bus. Particularly with shared-use lots, it must be easy for transit riders to understand which spaces are for their use and which are for the business' customers.
- **Adequate Parking:** Whether a shared-use facility or a dedicated facility, a park-and-ride must have adequate space available to accommodate the transit riders who are trying to park. If a person attempts to use a park-and-ride and consistently finds it full, he or she will likely stop attempting to ride transit and will drive instead. If space is limited and all transit customers cannot be accommodated, park-and-ride facilities may need to charge for parking or consider a permit program for transit riders.
- **Safe and Secure:** Shelters and amenities should protect passengers from the elements. Lighting of transit facilities and the full parking area helps passengers feel secure. If a person is going to leave their vehicle for a day, they need to feel confident that it will be there when they return in the condition it was left.

Best Practices in Park-and-Ride Facilities

Dedicated Park-and-Ride Facility (Contra Costa, CA)



High Quality Shelters at Park-and-Ride (Cummings, GA)



Accessible Features at Park-and-Ride Lot (Gallatin, TN)



IMPROVING ACCESS TO TRANSIT IN NASHVILLE AND MIDDLE TENNESSEE

Access to transit is a particular challenge in Nashville and throughout Middle Tennessee, largely due to very poor pedestrian connections in many areas and the way the region sprawls. As described above, there are many different ways to enhance access to transit for people of all ages and abilities, traveling by a variety of modes. The majority of access improvements will require partnerships, particularly between Nashville MTA/RTA and the jurisdictions in which the agencies operate.

CROSSINGS ON GALLATIN ROAD IN EAST NASHVILLE



- Pedestrian Improvements:** One of the largest barriers to transit service outside of Nashville's urban core is poor pedestrian conditions that force transit passengers to walk along major arterials that lack sidewalks and to cross streets that lack pedestrian signals or crossings. The City of Nashville and other local communities will need to take action to make it easier to walk to and from transit. Nashville's Complete Streets policy sets the framework to improve pedestrian conditions, calling for street designs that accommodate people of all ages and abilities. Pedestrian improvements are needed along many of Nashville MTA's most important routes, especially along corridors that provide the greatest potential for High Capacity Transit (HCT).
- Bicycling Improvements:** In a similar manner as pedestrian access, the region's communities will need to improve bicycle facilities to make it easier for people to ride bikes to and from transit. Nashville's Complete Streets policy also speaks to the need to improve cycling conditions, and several of Nashville's Complete Streets projects have installed state-of-the-practice facilities. Although complete streets do not always look the same, they include bicycle, pedestrian, vehicle, and transit facilities in a manner than complements the character and setting of the area. Concurrently, Nashville MTA and RTA can improve bicycle facilities at stations and stops and on board transit vehicles, especially as the agencies develop HCT services.

BICYCLE LANES ALONG BELMONT BOULEVARD IN NASHVILLE



- **Park-and-Ride/Kiss-and-Ride:** Especially in outer areas, park-and-ride and kiss-and-ride will remain among the most important ways to connect with RTA services. At the present time, RTA and Nashville MTA's primary focus is to develop park-and-ride lots at locations where local businesses and other organizations are willing to make parking available to transit riders. This approach reduces costs but also results in many park-and-ride lots in inconvenient locations. To make service more attractive, Nashville MTA and RTA will need to develop more purpose-built park-and-ride lots in more convenient locations.

CLARKSVILLE, TN PARK-AND-RIDE LOT

