

# Case Study Appendix

Comparison cities were selected for their best practices in parking management and access, including how their parking programs are integrated with transportation demand management, and promote biking, walking, and transit. This section analyzes programs and policies across multiple settings, including commercial districts, mixed-use districts, residential areas, transition areas, and parking permit districts. The best practices highlighted in this section were drawn from the following collection of peer cities in the United States and abroad:

- Boulder, CO
- Sacramento, CA
- Ann Arbor, MI
- Portland, OR
- Rotterdam, the Netherlands
- Strasbourg, France

The City of San Luis Obispo already successfully employs many best practices for parking management, including the use of price differentials to balance demand between on- and off-street parking, and core and peripheral areas. This section explores other successful practices that are helping communities manage parking and access and offers insight and guidance as the City of San Luis Obispo seeks to improve its current programs and consider new programs to help the broader City goals and initiatives. The case studies reveal how other practices might address needs and opportunities like those facing the City and might further integrate the Access and Parking Management Plan with the goals of the City's other planning documents, including the modal split objectives central to the General Plan's Circulation Element.

This section begins with brief information on each case study city and provides examples of how these cities have implemented parking and access strategies in the following categories:

- Employee parking demand reduction
- Area parking permit programs
- Pricing strategies
- Multimodal mobility measures
- Financial integration of parking programs and transportation demand management initiatives
- Communications

## CASE STUDY CITIES

The following cities were selected for their best practices in access and parking management, and their progress toward mode share goals:

- Boulder, Colorado:** Boulder has a population of approximately 104,000 residents, with a median age of 29. The city is home to the University of Colorado Boulder, which has an enrollment of approximately 33,000 students. Boulder has been awarded platinum-level status as a Bicycle Friendly Community by the League of American Bicyclists. It is served by the Regional Transportation District, which collaborates with the city. Parking and Access Services manages approximately 2,500 downtown parking spaces on-street and in public garages and lots and administers the city's neighborhood parking programs, as well as merchant validations and transportation programs for businesses and employees.



- Sacramento, California:** Sacramento has a population of approximately 525,000 residents, with a median age of 35. The city is home to California State University, Sacramento, which has an enrollment of approximately 31,000 students. Sacramento has been awarded silver-level status as a Bicycle Friendly Community by the League of American Bicyclists. It is served by Sacramento Regional Transit (light rail and bus lines) and has ZipCar rentals available. Parking Services is a division of Public Works and is responsible for managing over 4,000 single space smart meters, off-street parking structures and lots, temporary delivery zones, parking enforcement, and programs for businesses and employees. The city also contracts for management and enforcement of privately owned facilities.



- Ann Arbor, Michigan:** Ann Arbor has a population of approximately 122,000, with a median age of 28. It is home to the University of Michigan, which has approximately 45,000 students enrolled. Ann Arbor has been awarded gold-level status as a Bicycle Friendly Community. It is served by the Ann Arbor Area Transportation Authority (branded as "TheRide"). Downtown parking is managed by the Ann Arbor Downtown Development Authority (DDA) and consists of over 8,000 spaces, including metered on-street parking, eight public structures, and three surface lots. In addition to managing parking the DDA works on active transportation initiatives and travel demand management planning for employees and businesses, funded by parking revenues. The City manages eight residential parking permit areas.



- Portland, Oregon:** Portland has a population of approximately 641,000, with a median age of 38. It is home to Portland State University, with approximately 27,000 students. The city has been awarded platinum-level status by the League of American Bicyclists and is served by TriMet buses, MAX Light Rail, and Portland Streetcar. Parking is managed by the Portland Bureau of Transportation (PBOT). In addition to managing on-street parking and downtown SmartPark garages, the PBOT administers the Area Parking Program, the business

parking permit program, and the Transportation Wallet program. The PBOT manages the Eastside Parking District and Northwest Parking District and oversees parking and transportation stakeholder advisory committees.

- **Rotterdam, the Netherlands:** The Dutch city of Rotterdam has a population of approximately 624,000. It is home to Erasmus University, with approximately 31,000 students enrolled. The City is renowned for its bicycle culture, with 600 kilometers of bicycle paths. Bicycle use has increased by 60 percent over the last decade, and approximately 25 percent of residents cycle daily. Rotterdam is also well-served by the public transport company RET, which connects the city through an integrated tram, metro, bus, and ferry system. The city manages on-street parking meters, off-street facilities, park-n-ride facilities on the city outskirts, resident parking permits, and “scan cars” for enforcement.



## City of Rotterdam



- **Strasbourg, France:** Strasbourg has a population of approximately 277,000 residents and is home to the University of Strasbourg, with approximately 47,000 enrolled students. The city also has over 600 kilometers of bike paths

and is considered the most bicycle-friendly city in France. It is served by the low-cost bicycle rental service and by CTS, an extensive network of trams and buses. The city manages on-street parking meters, parking lots and structures, park-n-ride facilities on the outskirts. Street parking is organized into color-coded zones with distinct regulations, including special prices for residents.

## EMPLOYEE PARKING DEMAND REDUCTION

The case study cities offer a variety of employee-focused programs designed to decrease parking demand and increase multimodal mobility. Because many employees take the same commute to work every day, focusing on shifting the travel habits of commuters can be an effective way to progress toward mode share goals. Another reason commute trips merit particular attention is that workplaces are often centered in busy downtown areas. In high-density employment centers, reducing vehicle travel can be especially beneficial for preserving local air quality and allowing valuable downtown land to be repurposed for uses other than parking. Employee parking demand reduction strategies include parking cash-out, parking permit discounts for carpools, parking permit trade-in programs, and transit passes and other incentives. These programs can involve partnerships with downtown business associations, nonprofit organizations, and transit agencies.

**EcoPass (Boulder, CO):** In partnership with the nonprofit organization Boulder Transportation Connections and the Regional Transportation District, the City of Boulder incentivizes employers in certain districts to provide their employees with an “EcoPass” to encourage transit use. The EcoPass is an annual transit pass for unlimited regional, express, local bus and light rail service

throughout the Denver and Boulder regions. The pass is marketed to employers as a recruiting tool and way to support the quality of life in the community, as shown below.

Employer Benefits	Employee Benefits
<ul style="list-style-type: none"> <li>• Effective recruiting and retention tool.</li> <li>• Reduces air pollution and traffic congestion.</li> <li>• Proven morale and productivity enhancer.</li> <li>• Reduces employer payroll taxes via employee pre-tax benefit.</li> <li>• Demonstrates commitment to improving the quality of life in the community.</li> </ul>	<ul style="list-style-type: none"> <li>• Reduces commuting costs and hassles.</li> <li>• Increases salary by using pre-tax dollars.</li> <li>• Eliminates parking frustrations.</li> <li>• Reduces stress, tension and fatigue associated with driving alone.</li> <li>• Improves morale due to employer showing interest in employees' well-being.</li> </ul>

Source: Boulder Transportation Connections, 2022.

Employers can purchase EcoPasses for their employees at a significantly discounted rate off the regular cost of monthly transit passes, but the passes must be provided to all employees. The City of Boulder reimburses 50 percent of the cost of the first year of an employer's EcoPass contract and 25 percent the second year. In the Downtown and University Hill commercial districts, businesses receive free EcoPasses for their employees, funded by parking revenues generated in those areas. This program has successfully reduced single occupancy vehicle use; EcoPass holders were five to nine times more likely to ride transit than non-EcoPass holders.

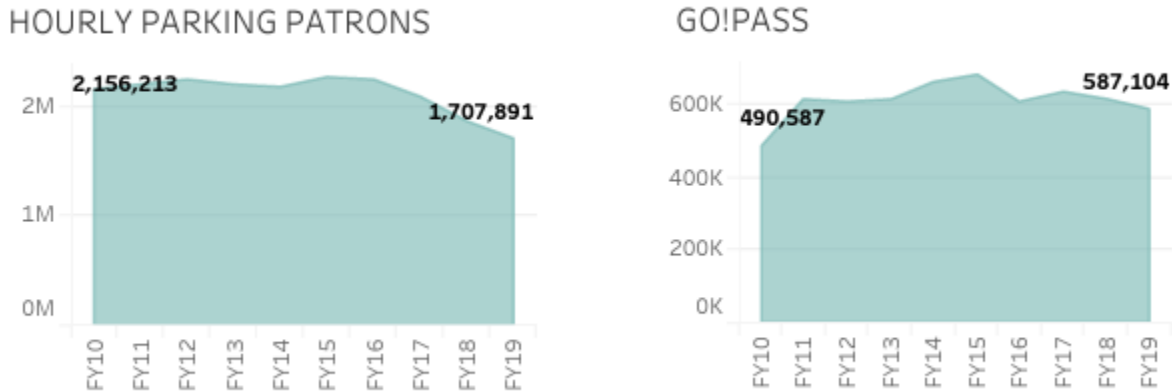
**Parking cash-out (Boulder, CO):** Boulder Transportation Connections piloted a parking cash-out program, which educated employers about mobility options and offered downtown employees the choice to accept the cash equivalent of employer-subsidized parking spaces. This program significantly lowered parking demand and single occupancy vehicle travel rates. Parking cash-out is already required for large California employers by law, but municipalities can dedicate funding toward expanding these programs or take steps toward their enforcement as part of the business license approval process.

**GetDowntown Program (Ann Arbor, MI):**

The GetDowntown Program is a partnership of the Ann Arbor Area Transportation Authority (TheRide), the Ann Arbor Downtown Development Authority (DDA) and the City of Ann Arbor. The program offers free services to help create commuter plans for downtown businesses, administers a VanRide program to promote carpooling, provides transportation information and assistance, and hosts sustainable transportation events. One key initiative for reducing employee parking demand downtown is the go!pass, which, like the EcoPass in Boulder, provides downtown employees with free rides on all fixed route buses, as well as other benefits. TheRide also connects downtown with multiple park-and-ride lots in the area. Employers must pay a participation fee based on their total number of employees but then have the option to purchase as many passes as they would like. Figure 1 on page 5 shows how parking demand has decreased as go!pass usership has increased.



**Figure 11: Hourly Parking Patrons and Go!Pass Holders in Ann Arbor, MI**



Source: State of the Downtown Report—Ann Arbor, Michigan, 2019.

**Carpool Permit Discount (Sacramento, CA):** To encourage carpooling, the City of Sacramento sells parking permits for public garages at a 25 percent discount when two or more downtown employees will travel together at least three days per week. To apply for a carpool permit, all members of the carpool must appear together at the time of application, and each must provide a copy of their photo identification, a paycheck stub to verify employment location, and proof of residency. City staff determine whether applicants reside within a reasonable proximity to the other carpool rider’s residence or travel route.

**Alternative Mode Commuter Option (Sacramento, CA):** Sacramento also offers discounted twelve-packs of daily parking passes for those who regularly use alternative modes of transportation (light rail, bus, bicycle, etc.), but occasionally drive to work. Offering parking by the day rather than by the month is a best practice for encouraging drivers to use other modes for at least some of their trips. While Sacramento still offers monthly passes in addition to the Alternative Mode Commuter Option, other places have switched to dividing the monthly permit fee into daily rates, as studies have shown car use is almost doubled where employees can pay monthly instead of daily.



**Transportation Wallet (Portland, OR):** Businesses in Portland’s Northwest Parking District and the Central Eastside Industrial District can choose to trade in employee parking permits for Transportation Wallets. The Transportation Wallet is a collection of passes and credits for use on transit, streetcar, bike-share, e-scooters, and car-share. Transportation Wallet is funded through parking permit surcharge fees, set by the City’s

parking committees. The program uses parking revenues to promote behavior change and has removed approximately 2,400 parking permits from circulation through trade-ins for Transportation Wallets. Survey data has shown commuters who use the Transportation Wallet drive alone for approximately 25 percent of their trips, compared with a 57 percent drive-alone rate for commuters without Transportation Wallets (see Figure 2 on page 6). Portland also requires Transportation Demand Management (TDM) surveys for businesses that request 30 or

more parking permits, to encourage businesses to consider how else they might reduce parking demand and drive-alone mode share.

**Figure 22: Drive-Along Trip Rates with and without Transportation Wallet**



Source: Transportation Wallet 2020 Program Report

## AREA PARKING PERMIT PROGRAMS

Programs that make parking permits available to people living certain neighborhoods help alleviate concerns of “spillover” parking demand from other nearby uses, since many residents are accustomed to relying on finding street parking available near their homes. It is possible to create parking permit programs that provide sufficient availability for area residents and align with the goals of the wider community. The following examples selected from the case study cities show strategies to ensure residential street space is used efficiently and highlight innovative ways of implementing parking permit programs, including program designs that align with and promote citywide mode share goals.

# ALLOWING NON-RESIDENT PARKING IN RESIDENTIAL PERMIT DISTRICTS

Cities often wish to reduce driving while still considering the needs of people who do want to drive and park without investing resources in expanding the existing parking supply. In some cases, where there is a large supply of on-street parking in residential areas, cities have created parking permits for residents while also allowing non-residents to park in the area, so that city resources are shared more efficiently and equitably among users.

**Allowing Non-resident Paid Parking (Sacramento, CA):** Non-residents may park in residential areas if they follow time restrictions or pay the meter. Residents are eligible for virtual permits tied to their license plate numbers, which exempt them from time restrictions and meter charges (see Figure 3).

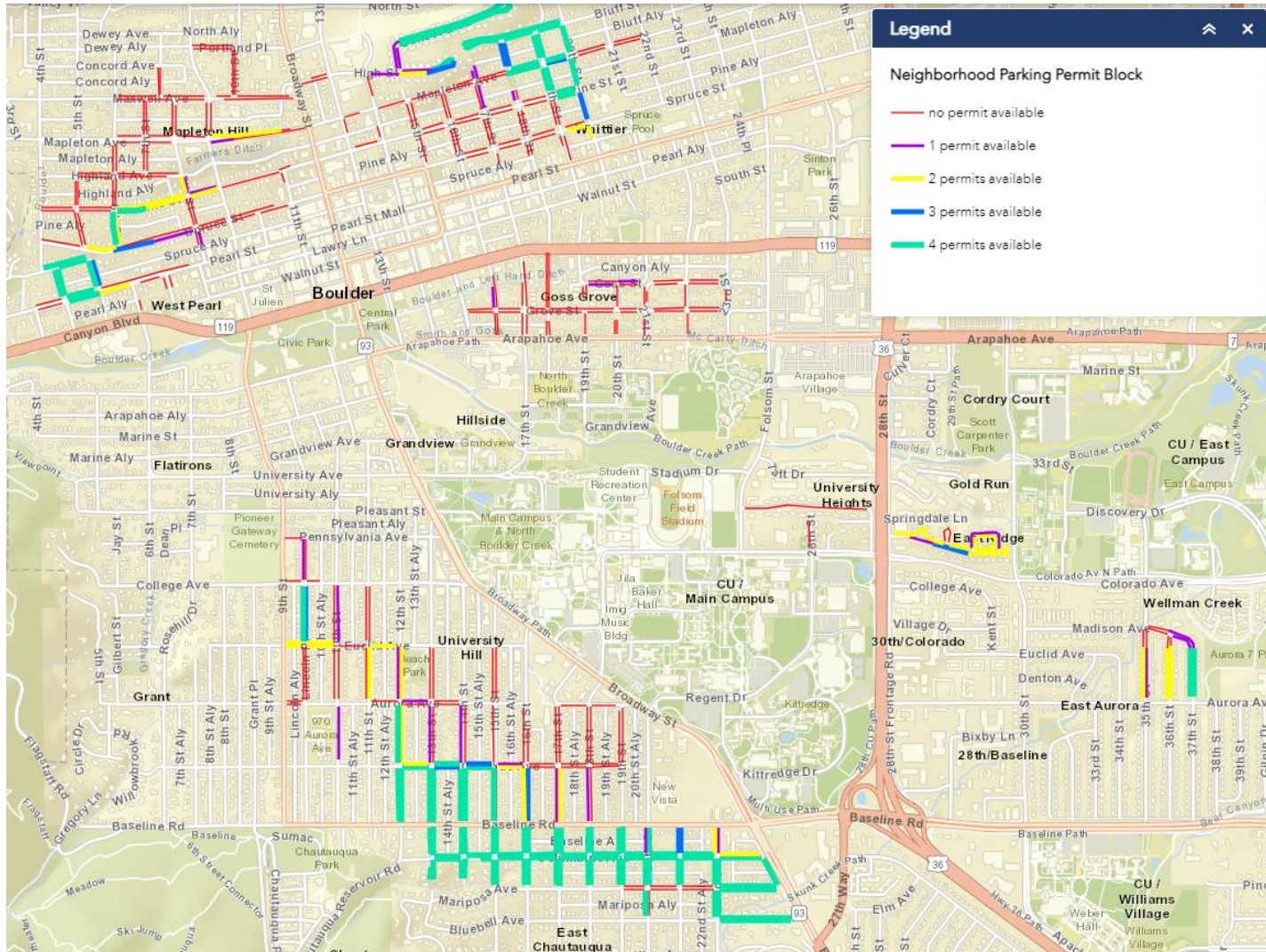
**Non-resident Commuter Permits (Boulder, CO):** Like Sacramento, Boulder also allows non-residents to park in some Neighborhood Parking Permit zones, subject to posted time limits. Non-resident commuter permits allow commuters to park beyond posted time limits in these zones and are available on a limited basis for \$105 per quarter. Each permit is limited to a certain block, chosen by the applicant based on availability. Figure 4 on page 8 shows a map of neighborhood commuter permit availability in Boulder. Permits for blocks with the most convenient access to the University of Colorado Boulder are especially in demand, but the limit on the number of permits per block can help ensure some parking remains available for residents of the permit neighborhoods.

Figure 33: Sacramento Residential Permit Parking Area Signage



Source: City of Sacramento

**Figure 44: Neighborhood Commuter Permit Availability Map**



Source: City of Boulder, 2022

**Virtual visitor permits (Sacramento, CA and Rotterdam, the Netherlands):** Many cities with parking permit programs have some allowance for temporary visitor permits. In Sacramento, residential permit holders can conveniently access an online portal at any time to order 24-Hour temporary parking permits. Residents may order a maximum of ten permits per month, per address. The City of Rotterdam has a similar program, allowing residential permit holders to register visitors through a phone app. In Rotterdam, there is no limit to the number of visitors permits a resident may order, but there is a charge of € 1.50 per five hours.

*Car-share vehicle parked in Strasbourg, France*



Source: YeaCitiz, 2022

**Allowing Parking for Car-Share Members (Strasbourg, France):** To encourage car sharing



and encourage more residents to live without owning a vehicle, Strasbourg makes parking in residential permit zones available to car-share vehicles. Many car share services require vehicles to be returned to the same spaces where they were originally parked within a specified time frame, but the Citiz car share service in Strasbourg offers additional flexibility for certain vehicles, which can be rented without specifying the return time, then left in any parking space within the City's perimeter.

## USING PARKING PERMIT REVENUE TO SUPPORT ALTERNATIVE MODES

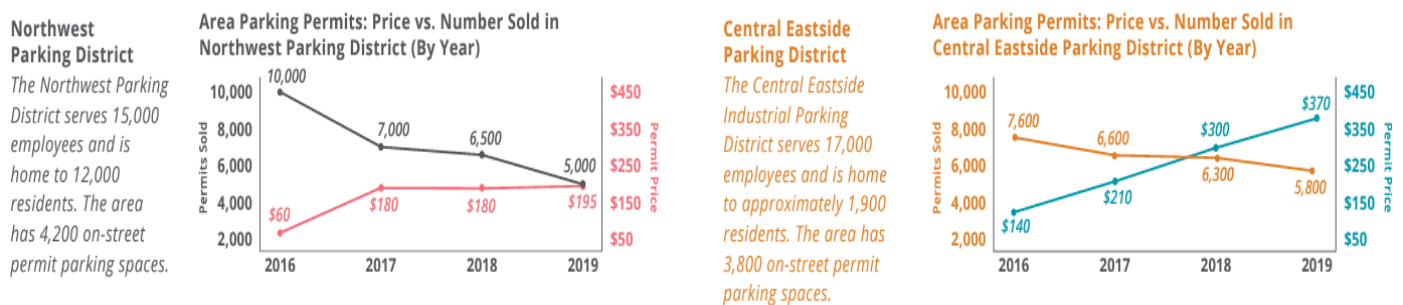
When their residents support citywide climate, mobility, and equity goals, some cities are starting to see their area parking permit programs as one element of a larger transportation system that also includes more sustainable modes of travel, including active transportation and shared mobility options. When parking is seen as part of this larger system, parking management solutions often go beyond simply providing available parking for those who need it. Forward-thinking strategies can also help to improve overall access and gradually move toward a transportation system in which sustainable travel options are more attractive than single occupancy vehicle use.

**Boulder, CO:** The City of Boulder plans to gradually increase the cost of neighborhood parking permits and reinvest the eventual surplus in mobility options (including a residential version of the EcoPass program discussed on page 2, above) for neighborhood residents and commuters.

**Portland, OR:** On top of the base cost of a residential parking permit, Portland includes a \$120 surcharge which goes toward transportation demand management initiatives, including the Transportation Wallet program. In consideration of social equity, the surcharge is waived if an applicant makes below 80 percent of the area's median household income. Figure 5 shows the number of parking permits purchased has steadily decreased as the cost of the area parking permits has increased since the launch of the Transportation Wallet program.

**Figure 55: Yearly Parking Permit Prices and Sales in Portland Area Parking Permit**

*In Growing Districts, Area Parking Permit Distribution Has Changed Since Launch of Transportation Wallet Program*



\* Reflects partial permit year at time of report publication.

Source: Transportation Wallet 2020 Program Report.

# AREA PARKING PERMIT RESTRICTIONS

Cities interested in reducing single occupancy vehicle use have developed other restrictions for area parking permits beyond simply increasing the cost of the permit. Many cities have clear requirements regulating the establishment of new permit districts based on occupancy observations. Others have further restrictions on permit eligibility.

**Portland, OR:** New residential parking permit districts are permitted only if at least 75 percent average occupancy is observed at least four days a week, nine months per year and at least 25 percent of parked vehicles have no connection to area residents or businesses. The Portland Bureau of Transportation (PBOT) conducts the occupancy counts.

**Rotterdam, the Netherlands:** Out of concern for environmental demands, residential parking permit applications are accepted only if the applicant's home or residence within the permit zone does not have a garage or private parking. The parking department verifies notes in a City register if a residence has a garage or private parking. The City continues to inventory if a residence has on-site parking. This information will be registered for all new developments.

# PRICING STRATEGIES

A widely recognized best practice in parking management involves setting prices based on observed demand. In practice, this can involve the comparison of actual parking utilization rates with an 85 percent occupancy threshold. When parking is 85 percent occupied, spaces are well-used—showing prices are not needlessly deterring people from driving to the area—but that it is also still possible for drivers to find parking without cruising around waiting for another driver to leave. Several of the case study cities use demand-based pricing and other pricing strategies, a strategy the City of San Luis Obispo in in the early stages of implementing:

**Occupancy-based price increases (Sacramento, CA):** The City of Sacramento does not programmatically lower prices when occupancy is low, but it does increase rates when occupancy is high, until 85 percent or below occupancy is achieved. This one-directional strategy may not result in as efficient use of the City's existing parking, but it could be more effective in increasing public revenue, freeing land for other uses, and achieving mode share goals. Sacramento has several off-street facilities with different price structures for evening and weekend parking.

**Occupancy-based paid parking introduction (Rotterdam, the Netherlands):** Rotterdam uses occupancy thresholds to determine where paid parking should be introduced. If occupancy is over 60 percent and new housing will be developed, paid parking is introduced, if not already in place. In other neighborhoods, paid parking is introduced when occupancy is over 85 percent. Rotterdam uses three tiers of pricing. Established rates vary by zone and time of day. In the past, the city made regular adjustments based on occupancy. Now, Rotterdam is more interested in deterring parking and gradually returning on-street parking spaces to the public realm for other uses.

**Paid parking area expansion based on climate and mode-share goals (Strasbourg, France):** Strasbourg's pricing strategy is more focused on achieving climate and mode share goals than on optimizing the use of existing parking. In general, the pricing scheme is still designed so that inner-city curbside parking is the most expensive and the peripheral public off-street lots are the least expensive, which encourages people to park on the outskirts of the City and take transit to the center. In addition, Strasbourg expanded its paid parking area even without citing occupancy as justification, as the city was more interested in reducing vehicle use. When Strasbourg

increased its paid parking area by 2,500 spaces between 2007 and 2008, a walking survey focused on the inner city revealed that there was an 11.5 percent increase in walking.

**Tier-based pricing (Sacramento, CA):** Another feature of parking pricing in Sacramento is that on-street parking has a tiered-based rate system. There are four zones with rates ranging from \$1.75 to \$3.75 per hour depending on location and length of stay. For example, in Zone 1, the base hourly meter rate is \$1.75, and increases to \$3.00 in the second hour, and \$3.75 per hour for three or more hours. Special event parking within three blocks of the Golden 1 Center charges a flat rate of \$18.75 for activities exceeding 15,000 expected attendees. Figure 66 summarizes the tier-based pricing system in Sacramento.

**Figure 66: Tiered On-Street Parking System Rates in Sacramento, CA**



Source: City of Sacramento.

## MULTIMODAL MOBILITY MEASURES

Direct parking management strategies can help improve access for drivers. A holistic approach to improving access also means implementing indirect parking management strategies to make walking, biking, and shared mobility more attractive and accessible transportation options. As a

complement to their parking management programs, the case study cities have taken measures to make their streets friendlier to pedestrians and bicyclists.

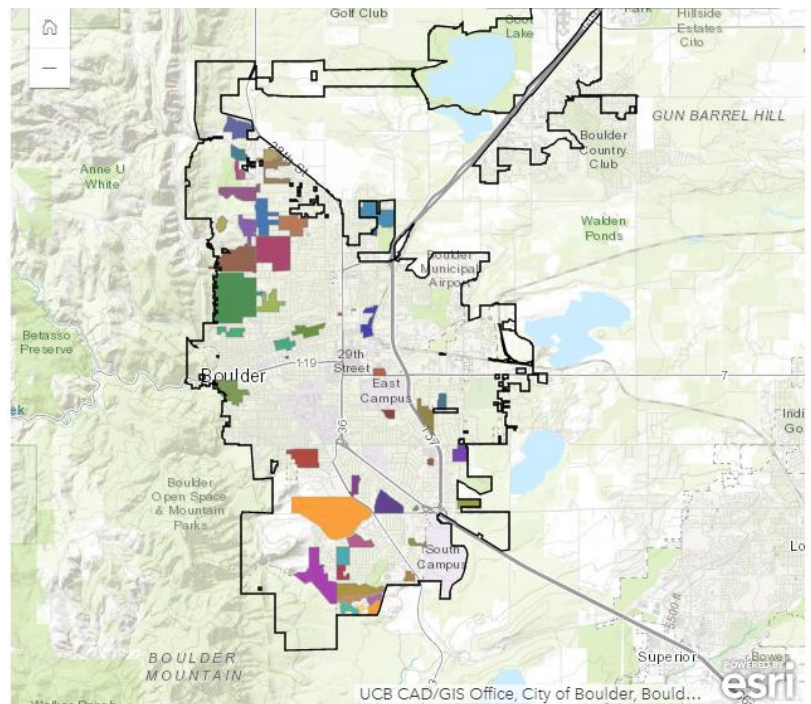
## BOULDER, CO

**Free secure bicycle parking:** In addition to providing bicycle racks throughout the city, Boulder offers free secure bicycle parking in its off-street parking structures and provides free bicycle lockers at its park-n-ride lots and at the Downtown Boulder Transit Station.

**Mobility safety fines:** Parking violations that impede mobility safety, such as parking in a bike lane, carry an additional penalty, and fines increase to \$65 or more.

**EcoPass and NECO Pass:** As discussed above, Boulder supports awareness and use of multimodal mobility options by subsidizing and providing staff support for the employee-focused EcoPass and residential-focused Neighborhood EcoPass (NECO Pass) programs. When a neighborhood association applies for NECO Passes, the City provides a 50 percent subsidy the first year of the program and subsidizes between 33 and 39 percent each subsequent year, depending on the share of affordable housing units in the neighborhood. Figure 7 shows the NECO Pass neighborhoods.

Figure 77: NECO Pass Neighborhoods in Boulder



Source: City of Boulder.

## Sacramento, CA

The vision and guiding principles expressed in Sacramento's general plan state that bicycle, pedestrian, and transit options should be prioritized over automobiles. In addition to eliminating parking minimums and introducing parking maximums, Sacramento is pursuing various strategies to support more multimodal access, including:

- **Parking-protected bike lanes:** In Sacramento, a survey revealed approximately 60 percent of people were interested in traveling by bicycle but were concerned about riding next to moving traffic. In response, the City has decreased the number of traffic lanes on some streets from three to two, making space for bicycle lanes buffered by parallel parking.
- **Making room for transit lanes:** Based on findings that dedicated transit lanes can improve bus reliability by 25 percent, Sacramento plans to remove parking spaces to make for dedicated lanes to improve the system for transit riders and encourage more residents to take public transportation.

## Ann Arbor, MI

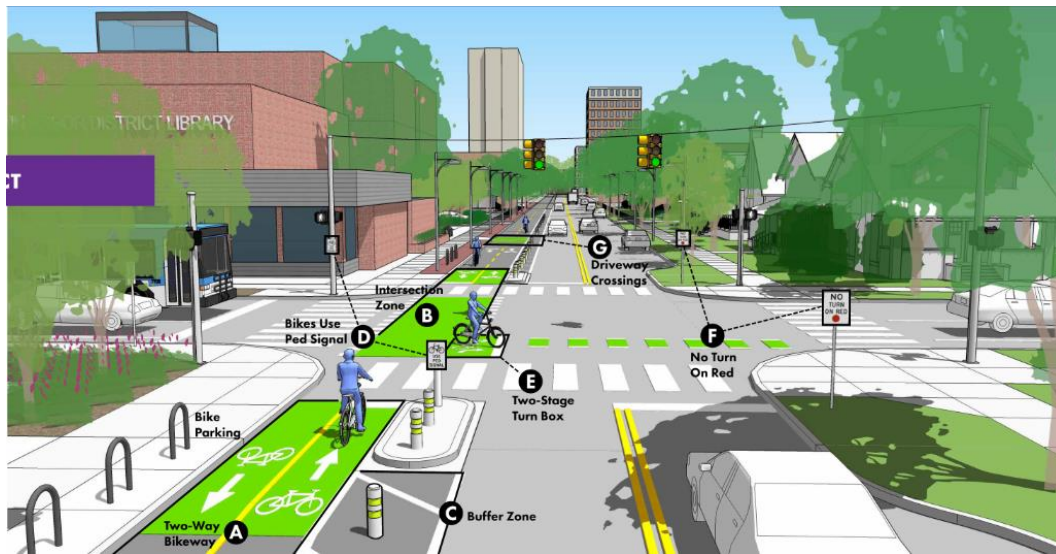
The City of Ann Arbor is becoming a leader in planning for multimodal mobility. In addition to promoting transit use through the getDowntown! program, the City is partnering with the Ann Arbor Downtown Development Authority (DDA) to implement a “People-Friendly Streets” program. The overarching goals of this program are designed to make streets more welcoming to pedestrians and cyclists, and include the following: improving safety and comfort, promoting green design, increasing connections, promoting affordable and inclusive community, and enhancing enjoyment and interest. Specific actions taken include:

- Repurposing parking lanes from one side to create more space for bikeways and pedestrian passings
- Using parking lanes to separate bike lanes from the roadway
- Creating bike turn boxes at traffic lane heads to improve safety at signalized intersections
- Introducing advisory bike lanes on residential streets
- Completing a bikeway link to the local university
- Reconfiguring traffic lanes to accommodate temporary pedestrian and bicycle facilities



Bicycle traffic increased dramatically upon installation of the temporary bike lanes on average among all sites after deployment. The Thursday, Friday, and Saturday changes in bicycle traffic were increases of 54 percent, 60 percent, and 93 percent, respectively. The City has also launched a website explaining the purpose of the new bicycle infrastructure with summary sheets and instructional videos explaining how to use it. Figure 8 on page 14 displays information from a summary sheet of the William Street Bikeway project, completed in 2019.

Figure 88: Example Ann Arbor’s People-Friendly Streets

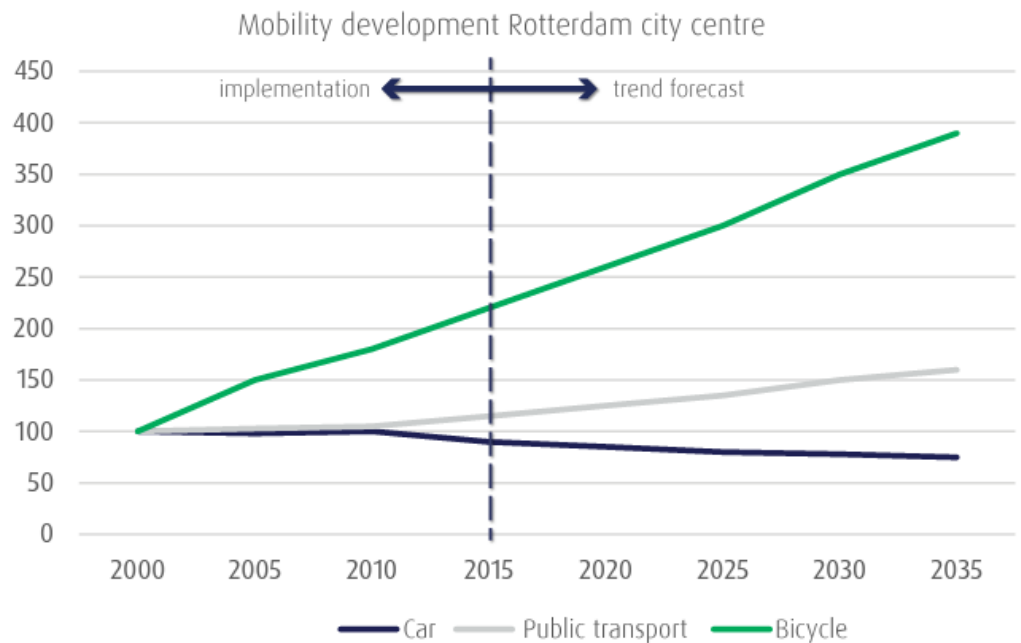


Source: Ann Arbor DDA.

Rotterdam, the Netherlands

Figure 99: Rotterdam Mobility Transition Projection

Rotterdam was once a car-centric city, but beginning in the 1990s, policymakers, citizens and researchers in the community developed an agenda for transition, and the city has gradually shifted toward more sustainable mobility. The “Rotterdam Mobility Approach” aims to give active and healthy mobility (walking and cycling) more space and to create a healthier, greener, and more attractive city. Figure 9 shows how Rotterdam’s interventions have already led to increased public transport and bicycle use and decreased vehicle use, and how these trends are expected to continue. Elements of Rotterdam’s approach include:



- Creation of more bike lanes, walking areas, bike parking, terraces, and green areas by repurposing parking spaces (3000 spaces were repurposed between 2016 and 2020).
- Response to the increase in resident demand for shared mobility services:
  - Car share, bike share, and public transit services are integrated into one digital platform.
  - Shared electric bicycles, scooters and cars can be rented anywhere in town.

- Parking is located on outskirts of downtown, and visitors can take transit into the city center.

### Strasbourg, France

Like Rotterdam, Strasbourg has been interested in improving pedestrian and bicycle infrastructure and decreasing reliance on automobile use since the 1990s. Initiatives Strasbourg has taken include the following:

- Removing 1,980 on-street parking spaces to repurpose the space for street beautification, dedicated cycling paths, and improved pedestrian infrastructure (relocating the spaces to four off-street garages).
- Providing 1,623 free secure bicycle parking spaces at seven garage facilities throughout the city. The parking lot at the Strasbourg train station also has a bicycle repair workshop, a spare parts dispenser, and battery recharging lockers for electric bicycle batteries.
- Supporting the development of a multimodal Mobility pass (“Pass Mobilité”) that offers a bundle of services, including access to the bus, tram, bike-sharing services, car-sharing services, bicycle parking facilities, and park-n-ride lots. There are two pass options, with price differentials for users who plan to use bike and car share services frequently or only occasionally. There are also different rates for youth, adults, and senior citizens. Interested individuals must apply for the pass on their own, but employers are required to reimburse 50 percent of the cost.

*Strasbourg Multimodal Mobility Pass*

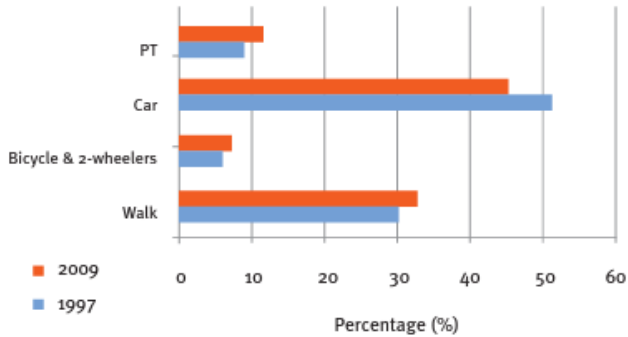


**Source: Mobility Pass Press Release, 2014.**

As Figure 10 on page 16 shows, Strasbourg began making progress toward becoming a more multimodal city between 1977 and 2009. Since then, the City continues to experiment with pilot projects and policy initiatives to achieve climate goals and become more pedestrian and bicyclist-friendly. For example, the city launched a Limited Traffic Zone pilot program from June to November of 2022, allowing only certain categories of vehicle users access to streets within the zone shown in Figure 11 on page 16 between the hours of 6:00 a.m. and 11:00 a.m.

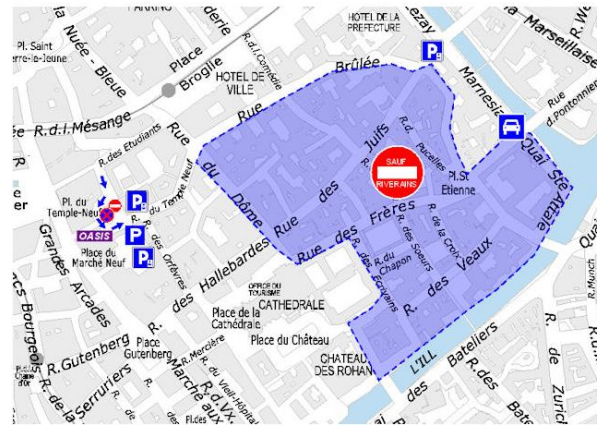
Figure 1011: Strasbourg Mode Split, 1977 and 2009

Modal split 1997 and 2009. Source: CUS



Source: Europe’s Parking U-Turn: From Accommodation to Regulation, ITDP, 2010.

Figure 1110: Strasbourg Limited Traffic Zone



Source: City and Eurometropolis of Strasbourg, 2022.

# FINANCIAL INTEGRATION OF PARKING PROGRAMS AND TRANSPORTATION DEMAND MANAGEMENT INITIATIVES

As mentioned briefly earlier in this section, several of the case study cities use parking revenue to support transportation demand management initiatives that reduce parking demand. This is a best practice, and cities will benefit from seeing the transportation system as a whole rather than managing and planning for each mode of travel separately. Gradually redirecting not only street space, but also financial resources toward sustainable travel will help cities progress toward their mode share goals. The following cities use parking revenues to advance environmentally-friendly transportation options:

- **Portland, OR:** Parking permit surcharges support transportation demand management and help subsidize the Transportation Wallet program. Portland also charges a “Parking Climate and Equitable Mobility Transaction Fee of 20 cents” per public parking transaction to further transportation demand management initiatives.
- **Boulder, CO:** Parking revenues also pay for transportation demand management initiatives in Boulder, including the EcoPass and NECO Pass.
- **Ann Arbor, MI:** The parking system supports itself through parking revenue, and also funds other transportation initiatives such as the go!Pass, the getDowntown program, and supplemental service on public transit routes.
- **Strasbourg, France:** Strasbourg changed its structure from Parking Enterprise (internal circular funding, where parking fees pay for the cost of the parking program) to instead direct parking revenues toward public transit.



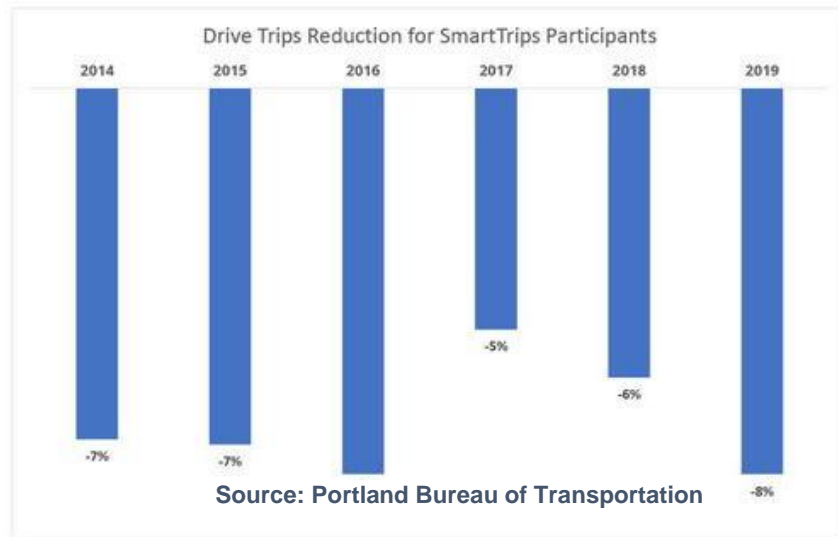
# COMMUNICATIONS

Cities often make significant investments in transportation infrastructure and develop thoughtful programs to help encourage sustainable travel and make the transportation system run more smoothly. Equally important are communications strategies that increase awareness of the many transportation options available. The case study cities employ a variety of practices to help people understand the reasoning behind new City policies, plans, and programs and to make transportation decisions:

## **SmartTrips New Movers program (Portland, OR):**

Portland’s Bureau of Transportation provides individualized transportation information by mail and email to new and relocating residents, based on research demonstrating people may be more receptive to new information and more willing to adopt new habits in a “changed decision” context, such as after a relocation. Portland purchased a mailing list based on the U.S. Postal Service’s National Change of Address database and sent “order forms” offering residents 30 different types of free resources—such as walking maps, bicycle routes, carpooling information, and transit schedules—that they could choose from. Program staff later followed up with the new residents by phone and email. As shown in Figure 12, SmartTrips New Movers has reduced new residents’ drive-alone trips by 5 to 8 percent and increased the share of their trips taken by sustainable modes of travel.

Figure 12.12: Drive Trips Reduction for SmartTrips Participants, 2014-2019



**SmartPark garages (Portland, OR):** Portland has “SmartPark” garages with sensors to detect occupancy, and signs display the number of spaces available. This can reduce perceptions of a parking shortage, and drivers will not waste time circling for parking if a garage is full.

SmartPark garage sign



Source: Portland Bureau of Transportation

**SmartTrips (Portland, OR):** Portland SmartTrips provides tools and resources to help residents learn how to travel on foot, bike or transit. Every year, the program sends information via mail to residents. An example of the mailer is included as an Attachment.

## **People-friendly streets program messaging (Ann Arbor, MI):**

The program webpage shares project updates, provides visually appealing graphics explaining new infrastructure, and shares educational videos, such as William Street Bikeway 101, How Advisory Lanes Work and The Importance of Protected Bike Lanes.

**Communications campaigns (Strasbourg, France):** Strasbourg has run several communications campaigns related to sustainable transportation. The “Ecomobilité” campaign challenged car dependence with active transportation posters, brochures, and other messaging

throughout the city. The “Priority to our Quality of Life” campaign included public discussions and pamphlets explaining the reasoning for the expansion of the paid parking area. Public campaigns and posting published materials in the public realm can reach a wider audience than relying primarily on web pages to relay information.

## CONCLUSION

The practices presented in this section have helped the case study cities improve the quality of life for residents and make substantial progress toward their climate and mode share goals. The six cities exemplify a visionary approach to long-term planning for parking and holistic access, and their success stories provide lessons that can help other communities chart a path forward. Key findings from this report include:

- There is significant potential to reduce employee parking demand through partnerships with transit agencies and downtown business associations.
- Some residential area parking permit management include options for non-resident parking to ensure city resources are shared more efficiently and equitably among users.
- Demand-based pricing strategies can help ensure access and availability.
- Multimodal mobility strategies are an important complement to direct parking management.
- Dedicating more street space to multimodal infrastructure results in more people walking, biking, carpooling, and using public transit.
- Parking revenues can be used to support transportation demand management initiatives that reduce parking demand.
- Successful communications can increase awareness of and support for parking and access programs.



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Attachment - Portland SmartTrips Mailer

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Portland Bureau of Transportation  
 Active Transportation and Safety Division  
 1120 SW 5th Avenue, Suite 800  
 Portland, OR 97204

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## PORTLAND SMARTTRIPS IS HERE AND YOU'RE INVITED

*Free resources tailored to your needs and interests -  
 everything you need to get out and explore your new neighborhood!*



**Family Fun at Portland  
 Sunday Parkways**  
*Opening our streets,  
 connecting our communities*



Portland Sunday Parkways, presented by Kaiser Permanente, is the premier family-fun event in the city and a beloved Portland tradition.

# Welcome SmartTrips

If you're new to this amazing new neighborhood, you're offering such a range of c Portland neighborhoods a residents save money by Portland SmartTrips provi bike and transit. Watch yo and use it to order a varie gift when you order.

## Walking

Portland is a great city for walking. Not only do we ha great parks and trails to e by foot, we also have grea neighborhoods and busin districts that are fun to st

## Biking

Most Portlanders live with a quarter mile of a bikewa Our network of bike lanes neighborhood greenways



## Explore Portland By Foot

Portland gets high marks as a walk-friendly city. A compact downtown with smaller than typical city blocks, great neighborhood business districts, hidden stairways and amazing parks and trails are a just a few reasons to lace up your shoes and start walking.

Our **Ten Toe Express** program and AARP's **NeighborWalks** are two great ways to explore more of Portland and meet new people. Both programs offer guided

*This is a great way to be welcomed to Portland! Thanks for having such a*

## Go By Bike

SmartTrips has bike maps, resource guides and even offers rides to help you get around Portland by bike.

If you're interested in bicycling but need some help to get started, check out our **Portland By Cycle program**. Fun and informative guided rides and classes introduce you to our bikeway network and let you learn new skills in the safety of a supportive group.

Want to know more about riding with children? Our **Family Biking Guide** helps you navigate all stages of family biking – from pregnancy to preparing older children to ride independently.

Order your bike resources on the **SmartTrips Order Form** or go online at [portlandsmartrips.org](http://portlandsmartrips.org) to order today.

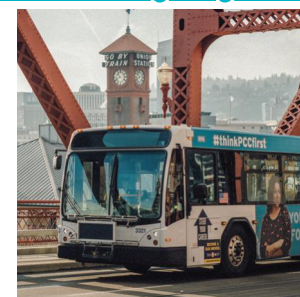


*This is awesome - thanks! I actually rode my bike to work yesterday. First time ever!*

- STEPHANIE

## Welcome to BIKETOWN!

BIKETOWN is Portland's bike share program. Every SmartTrips order includes a FREE ride coupon so you can test it out. Be sure to order your transportation resources to claim yours. You can also visit [BIKETOWNpdx.com](http://BIKETOWNpdx.com) to become a member or download the mobile app today.



## Take

No car? No problem. There are many transportation options that can get you where you want to go. From adventure buses to Washington Streetcar, there are many used parking spaces, gardens and trails, and 15 miles of trails for every mile. Transit is a great way to get around. Many other transportation options are available. Challenge yourself to explore Portland. Adventure buses and other resources are available. Go online to learn more. You can also take transit today.

## BEAT CONGESTION WITH SMARTTRIPS

Traffic congestion is a frustrating part of life in many cities, and Portland is no exception. In the next 25 years, Portland is expected to grow by nearly 140,000 households. And with that growth, there will be more cars on our roads and more competition for parking spaces. While the region will continue to grow,