



PORTLAND BICYCLE PLAN FOR 2030



APRIL 2011



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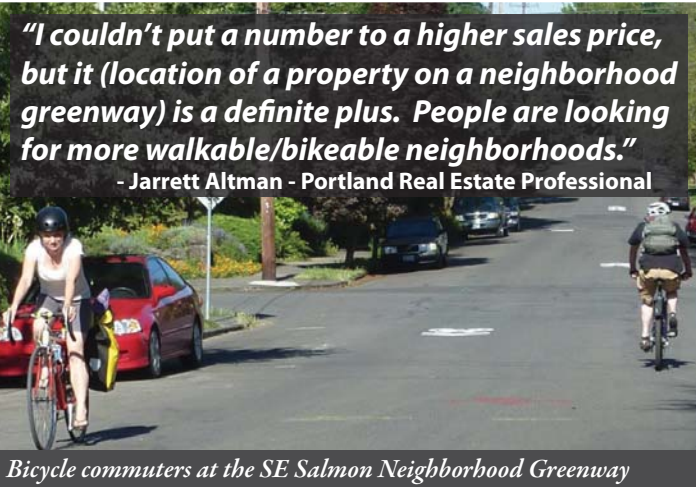
Adopted by Portland City Council on February 11, 2010, the *Portland Bicycle Plan for 2030* suggests an ambitious vision and goal: By the year 2030, bicycling will be more attractive than driving for trips of three miles or less, so that a minimum of 25 percent of all trips will be by bicycle. The Plan identified **six key areas** to pursue in achieving this:

- **ATTRACT NEW RIDERS** by planning and designing for people who currently feel either unsafe or uncomfortable riding on the city's existing bikeways
- **FORM A DENSER BIKEWAY NETWORK** to provide people an array of route choices
- **INCREASE BICYCLE PARKING** to satisfy the growing demand for bike parking
- **EXPAND PROGRAMS TO SUPPORT BICYCLING**, such as encouragement and education programs
- **INCREASE FUNDING FOR BICYCLE FACILITIES**
- **STRENGTHEN BICYCLE POLICIES**

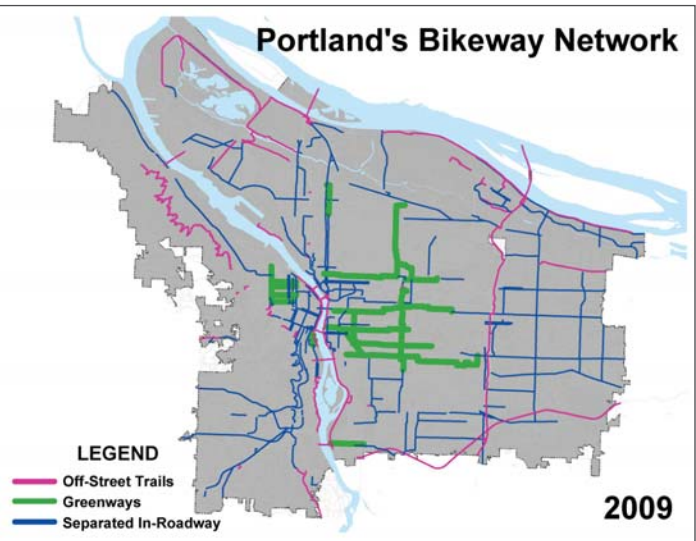
In the year since the *Portland Bicycle Plan for 2030* was adopted, the City has made significant advances in the above **six key areas** by building neighborhood greenways, providing more bicycle parking, expanding encouragement and education programs, developing better bikeway designs, providing more funding and designing and implementing projects with an eye toward the approved policy objectives.

The foundation of Portland's success in achieving North America's highest urban bicycle use has been the construction of its 303-mile bikeway network.¹ Continuing and improving upon the development of safe, comfortable, direct and convenient bikeways remains a principal strategy in attracting new riders. 2010 saw the first dramatic expansion of bikeway miles in Portland since the mid-1990s. Most of those new bikeway miles were Neighborhood Greenways.² Portland had previously developed 30 miles of such roadways by 2009. During the past year, Portland constructed 16 miles of new Neighborhood Greenways, began initial work (shared lane pavement markings) on another eight miles³ and is currently planning their continued development for the next several years. These bikeways represent the largest recent addition to Portland's transportation infrastructure and, because they make use of existing roadways, come at the lowest cost possible for that many miles.

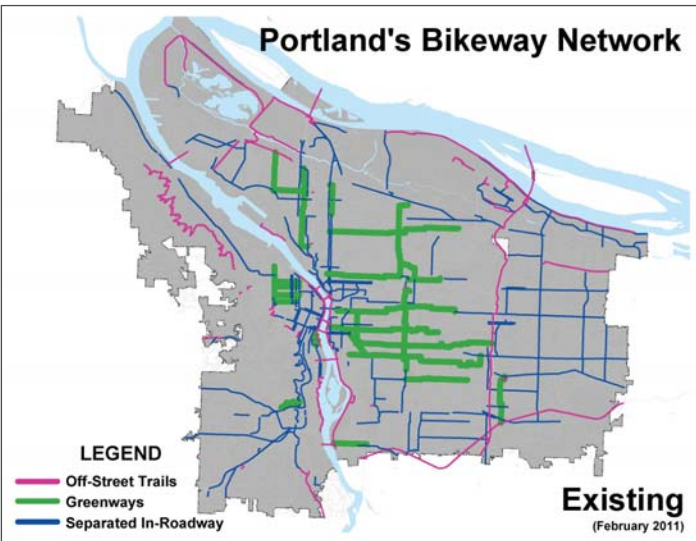
The new Neighborhood Greenways are qualitatively superior to the 30 miles previously built. They have significantly fewer stops, more effective crossings of busy streets, more comprehensive traffic calming and clearer indications about the intended function of the roadway.



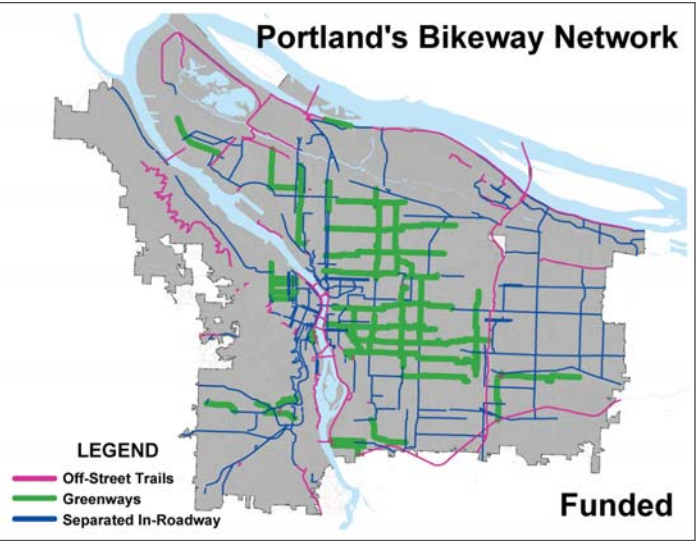
1 Network as of March 2011.
2 'Bicycle Boulevards,' and 'Neighborhood Greenways' can be used synonymously. The term 'Neighborhood Greenway' gained greater use once green street features started to be incorporated into Bicycle Boulevards on a more regular basis. Regardless of what they're called, these bikeways provide multiple benefits. While they offer the best combination of comfortable and safe riding conditions and access to common destinations, their traffic calming and crossing treatments also provide significant benefits to people walking along these streets. The development of green street features, wherever feasible, also means that these streets help realize other City goals, like creating attractive residential areas and keeping in-street stormwater run-off out of basements and out of Portland's combined storm sewer system.
3 Also marked were the existing 30 miles of Bicycle Boulevards.



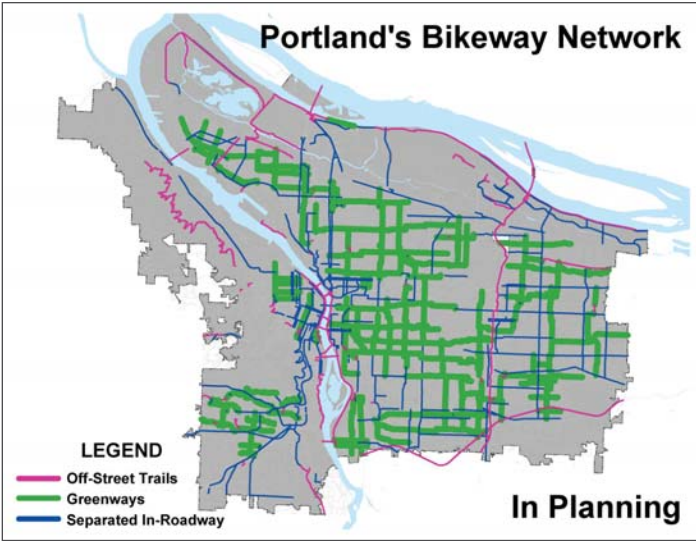
283 Built Bikeway Miles in 2009



303 Existing Bikeway Miles (as of March 2011)



341 Existing and Funded Bikeway Miles



430 Existing, Funded and In-Planning Bikeway Miles

Portland's BIKEWAY MILES					PORTLANDERS LIVING NEAR IOW-STRESS BIKEWAYS - Number / (%)	
Year	Neighborhood Greenways	Separated In-roadway	Off-street Trails	Total	Within 1/2 Mile	Within 1/4 Mile
2009	30	175	78	283	277,300 / (51%)	159,700 / (29%)
Existing (March 2011)	46	179	78	303	342,200 / (62%)	212,800 / (39%)
Existing & Funded	71	187	83	341	399,600 / (73%)	268,200 / (49%)
Existing, Funded & In-Planning	149	198	83	430	493,900 / (90%)	390,900 / (71%)



Traditionally, the foundation of bicycle planning and implementation has been engineering, encouragement, education and enforcement, referred to as the ‘four E’s.’¹ Portland has shown its commitment to encouragement and education, just as it has shown its commitment to engineering (as previously discussed) in the Neighborhood Greenway program. Portland has dramatically expanded its two principal encouragement programs: SmartTrips and Sunday Parkways.

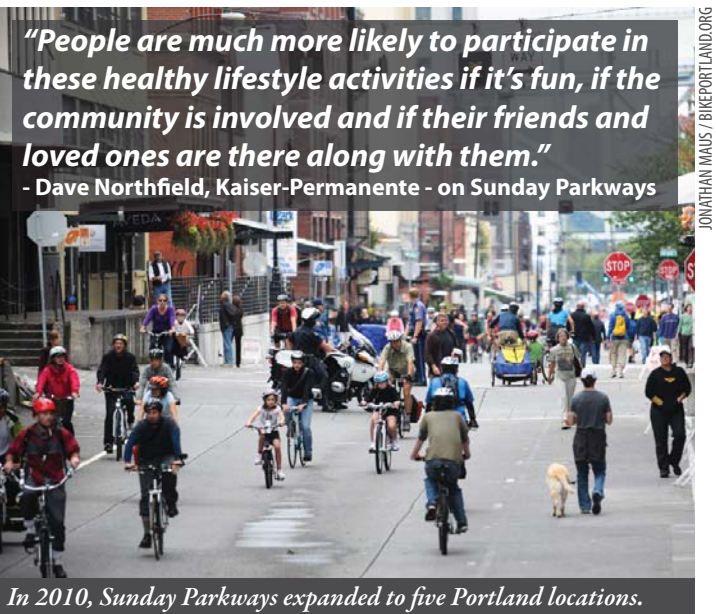
Since 2003, SmartTrips has been working in Portland neighborhoods to encourage residents to use transportation options, rather than driving alone, whenever it makes sense.² SmartTrips is becoming increasingly integrated with other City programs. For example, in 2010, SmartTrips tackled its sixth large Portland neighborhood—working in the neighborhoods paralleling the newly-opened MAX Green Line.

The SmartTrips program also has a business component. This program began in 2006 as a way to help manage congestion related to construction projects. Due to its success, it was expanded in 2010. The program provided 189 east Portland businesses with active transportation resources for employees and customers. Store owners distributed nearly 5,000 neighborhood Bike/Walk Maps to East Portland customers, 75 percent of whom stated that supporting biking and walking was good for their business. To date, SmartTrips Business has assisted over 600 Portland businesses.

Sunday Parkways also had its biggest year since the program began with one event in 2008. After three events in 2009, the City held five Sunday Parkways in 2010, which for the first time included a route in East Portland. This expansion allowed for greater coordination with SmartTrips programming and resulted in the most Portlanders to date participating in the program. In 2010, more than 91,000 Portlanders biked, walked, strolled, jogged or rolled on car-free Sundays.

Both efforts reflect an approach identified in the *Portland Bicycle Plan for 2030* for better integration of

¹ In recent years Portland, among other jurisdictions has recognized the need for two more ‘E’s’: evaluation and equity.
² Each year, SmartTrips provides encouragement to approximately one-tenth of Portlanders, contacting approximately 20,000 households in each project area.



In 2010, Sunday Parkways expanded to five Portland locations.



SmartTrips provides bikeway information for Portland residents

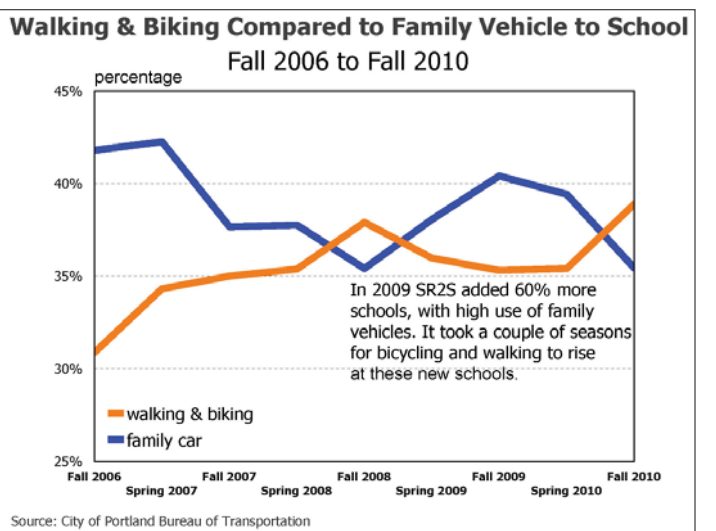
encouragement program delivery with on-the-ground projects. It also reflects the call to include equity as a criterion for project selection. Delivering these programs to East Portland allowed the City to provide two of the best active transportation and car-free encouragement programs in the country to areas identified as being poorly served by bicycle infrastructure and programs, and with a high proportion of disadvantaged population.

Safe Routes to School (SR2S) is a program that advocates for and implements improvements to make walking and bicycling fun, easy, safe and healthy for all students and their families through a federally-funded partnership between the City, local schools, neighborhood groups, community organizations and agencies. This program began in 2005 with eight schools. Every year since, the program has grown—now serving almost every elementary and K-8 school in Portland, and providing direct service to over 80 schools.

The results are significant, and are encouraging parents and schools to seek more opportunities to get their students involved in bicycling and walking. For example, more than 60 city schools participated in International Walk + Bike to School Day in October 2010, which included more than 75 percent of students at Llewellyn School. SR2S programs, combined with development of nearby Neighborhood Greenways, have proven a springboard for impressive community involvement. ‘Bike trains’ have developed at six Portland schools. The most noticeable—at Beach Elementary School—was successful enough to be featured in a video and attracted a visit from The Honorable Jim Oberstar, the former Chair of the U.S. House of Representatives Transportation and Infrastructure Committee. At Beach Elementary School, more than 30 children and their parents regularly participate in the train. A ‘walking school bus’ has been established at Maplewood Elementary in SW Portland, and one is in the works at Harvey Scott School in the Cully Neighborhood. As the visibility and popularity of these projects grow, more schools are expressing interest in what will hopefully become a positive and reinforcing trend. According to the City’s twice yearly parent survey of partner schools, the number of students getting to school in an active manner has increased from 28 percent in 2006 to 39 percent in 2010.



Safe Routes to School teaches valuable bike safety to students



‘Bike trains’ are parent-led rides leading students to school on bike

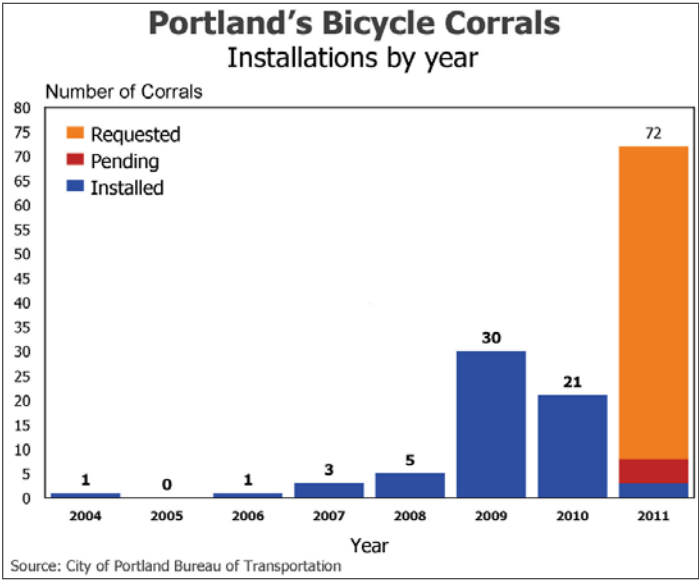




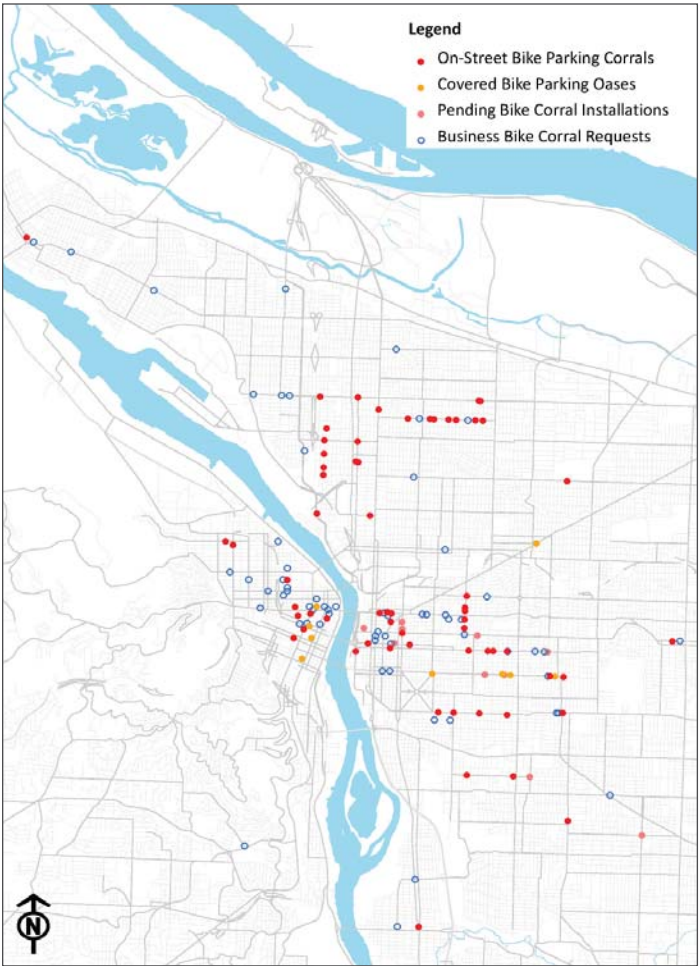
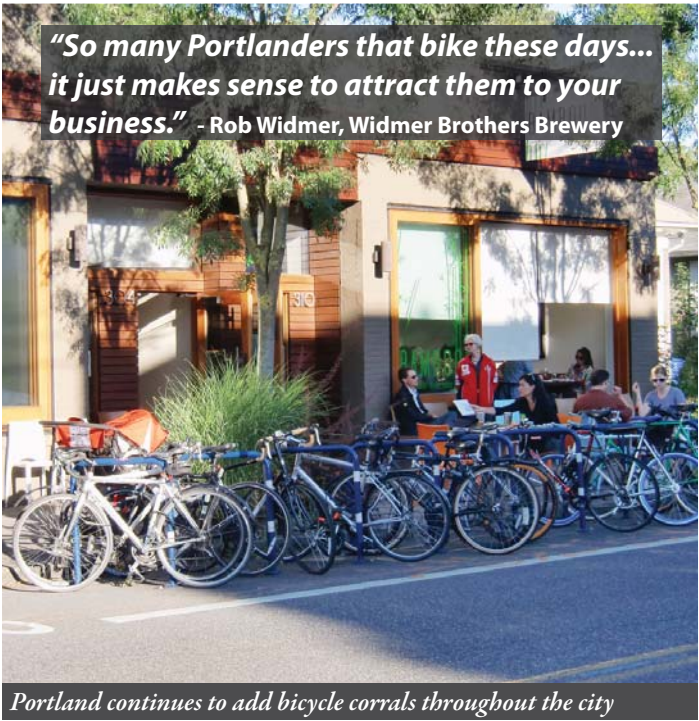
Portland had a second solid year of providing on-street bicycle parking in commercial areas throughout town. Known as ‘bicycle corrals’, these parking facilities have proven tremendously popular with local business owners, commercial property owners, pedestrians, business associations and, of course, people looking for a convenient location to park their bicycles.

Following a six-fold annual increase to 30 installations in 2009, the bicycle corral program slowed in 2010 because of insufficient funding to keep up with demand. Despite limited funding, the City added 21 new bicycle corrals in commercial districts. These highly visible installations provide both a good indication of the prominence of the bicycle in Portland’s transportation system and indicates the level of acceptance it has achieved amongst those with commercial and retail properties in Portland. Sixty-five additional businesses have formally requested bicycle corrals; another four locations are currently awaiting installation.

In 2010 the City also modified City Code to require more long-term bicycle parking in multi-dwelling units.¹ The former code required only one long-term bicycle parking space per four living units, and allowed the unit itself to serve as bicycle parking. The amended Code requires 1.5 long-term bicycle spaces per unit in the Central City Plan District; 1.1 spaces per unit elsewhere.



¹ Table 266-6 "Minimum Required Bicycle Parking Spaces in City Code 33.266.210.A.



Much of the success of Portland’s bicycle transportation program is based on the City’s development and use of designs that best address bicycle operations. This often includes using innovative designs. These ‘innovations’ are usually adaptations of best design practices found in some of the world’s best bicycling cities.

In 2010, Portland has advanced the use of such treatments and knowledge about them in the following ways:

- **Expansion of intersection bike boxes.** Portland added four bike boxes to the original eleven, and collaborated with researchers at Portland State University to evaluate their effectiveness. Planning and design are underway at nine additional locations.
- **Signal infrastructure improvements.** Portland has six intersections with bicycle signals after two more were added in 2010 at NE Alameda/Sandy and N Broadway/Williams. City signals staff is collecting bicycle trip data by installing bicycle detection in bicycle lanes. This effort will support Metro’s interest in data to support their bicycle modeling. These detectors also reduce delay for bicyclists at traffic signals. Bicycle-specific traffic signals are now considered a standard tool for PBOT engineers.
- **Signal operations enhancements.** PBOT continues to respond to requests for bicycle detection markings at existing signals and modification to signal timing at locations throughout Portland. City signal engineers adjusted signal timing on key routes including NE/N Broadway and the corridor from the Rose Quarter Transit Center to N Broadway. The recently-opened E Burnside / NE Couch couplet was praised by the Bicycle Transportation Alliance for signal timing that was designed with consideration of bicyclists.
- **Better bicycle lanes.** Portland continues to evaluate and construct better bicycle lanes, including buffered bicycle lanes and cycle tracks. In addition to buffered lanes on SW Stark, SW Oak and SE Holgate, and a short segment of cycle track on SW Broadway, the City is constructing its first permanent cycle track on NE Cully Street, and is planning for a similar funded facility on SW Multnomah, as well as a future facility on SW Capitol Highway.

- **Leadership in a national effort to develop guidelines for modern urban bicycle streets.** Portland is a founding member of the Cities for Cycling initiative, which has traffic engineers and planners from some of America’s best bicycling cities sharing information and developing a national urban bicycle design guide. This guide will eventually become Portland’s design guide for developing bikeways, and is intended to ultimately supplant existing national design guides.



Three bike boxes were added in 2010 - 14 now exist in Portland



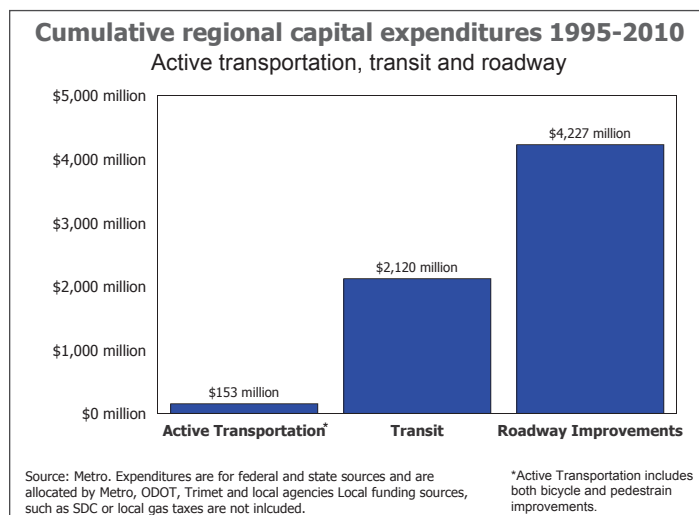


FUNDING and POLICY DEVELOPMENT

FUNDING FOR BIKEWAYS

Funding for bicycle capital projects has increased significantly in the past two years as a result of new grant sources (notably a federal TIGER grant) and new dedicated, ongoing sources. Beginning in 2009, the City dedicated \$500,000 annually to bicycle transportation as part of an Active Transportation Fund and another \$1 million, beginning in 2010, from general transportation revenues. PBOT is also collaborating with the Bureau of Environmental Services (BES) on a joint venture so that \$20 million in BES funding will serve both sewer and bicycling needs. In the current fiscal year, PBOT has budgeted 16 percent of its discretionary Capital Funds for bicycle projects, representing \$2.8 million of the \$17.4 million in available discretionary funds.

While representing solid advances, these sources still fall far short of the funding required to put the development of Portland's bikeway network on a pace that will realize the vision and goals of the *Portland Bicycle Plan for 2030*. The chart below shows the comparatively low regional funding levels for bicycle infrastructure. Raising that to levels to achieve the goals of the Plan will require continuing efforts at the local, regional, state and national levels.



POLICY DEVELOPMENT

The *Portland Bicycle Plan for 2030* recommends strengthening many City policies related to bicycle transportation. While the Plan was accepted by City

Council by Resolution, the recommended policies do not become the 'law of the land' until they are included in an update of the City's *Transportation System Plan*. This update is scheduled to be completed by December 2013.

City staff have been working to develop projects in a manner that follows the intent of the recommended City policies. This has especially been the case on planning projects for roadways classified in the Plan as Major City Bikeways. Planning for SW Capitol Highway and SW Multnomah Boulevard—with the inclusion of wide buffered bike lanes or cycle tracks—are good examples.

NEXT STEPS

BIKEWAY NETWORK

- Develop plans for next 100 miles of Neighborhood Greenways
- Develop plans for bringing Portland's original 30 miles of Bicycle Boulevards up to current practice
- Plan for the next generation of separated in-roadway bikeways, including the retrofit to existing bike lanes

EDUCATION & ENCOURAGEMENT

- Expand Sunday Parkways to include more neighborhoods
- Identify sustainable funding for Safe Routes to School
- Double the number of schools with bike trains
- Improve project delivery to better incorporate education and encouragement programs specific to bikeway capital projects once they are complete

BICYCLE PARKING

- Develop a plan and funding resources to address strong demand for bicycle corrals

ADVANCING BEST DESIGN PRACTICES

- Continue to work locally and nationally to refine and gain acceptance for new designs
- Continue to advance new designs that address the needs of bicycle transportation
- Continue to integrate best design practices into new capital projects
- Work to retrofit best design practices into Portland's pre-2010 bikeway network

FUNDING FOR BIKEWAYS

- Continue to collaborate with local, regional and statewide partners to seek funding from existing and identify new funding sources for bicycling
- Continue to work at the national level to identify new funding sources for bicycling

POLICY DEVELOPMENT

- Continue to apply policy principles identified in the *Portland Bicycle Plan for 2030* to projects and programs
- Incorporate *Portland Bicycle Plan for 2030* policy into City's *Transportation System Plan* during its required update
- Work with the *Portland Plan* to incorporate vision, goals and policies into that citywide planning process

