



Date: February 23, 2017
To: Wilburton Commercial Area Citizen Advisory Committee
From: Bradley Calvert (425-452-6930, bcalvert@bellevuewa.gov)
Project Manager for Wilburton - Grand Connection Planning Initiative
Department of Planning and Community Development
Subject: March 2, 2017 Citizen Advisory Committee Meeting

Enclosed you will find your March meeting packet. The meeting is set for Thursday March 2, 2017. We will begin at 6:00 p.m. in Room 1E-112 at Bellevue City Hall. Please note that this is a temporary return to the room from our first meeting due to scheduling conflicts. The meeting will be co-chaired by Jeremy Barksdale (Bellevue Planning Commission) and Lei Wu (Bellevue Transportation Commission).

The packet includes the following materials:

- Agenda for the March 2, 2017 meeting.
- Meeting minutes from the February 2, 2017 meeting.
- Presentation from the February 2, 2017 meeting
- *Active Transportation and Real Estate: the Next Frontier* - Urban Land Institute
- Artspace Informational Sheet
- Eastgate/I-90 CAC Final Report
- Human Services Needs Update 2015-2016
- Environmental Impact Statement Performance Measures (Draft)

The materials included in this packet expand on Bellevue's needs by demographics and provide additional case studies not covered in the meeting presentation. A Committee discussion and decision road map (summary version) has been included to assist Committee members in seeing how each conversation influences future action items. A larger detailed version will be present at each meeting going forward to assist in facilitating discussions, assess what has been completed, and understand how it all relates to future meetings and critical decisions.

This meeting will feature a summary and comparison of the recent public survey results. The questions mirrored those asked of the Committee and the Property Owners Panel and the Committee will be looking for common themes and other ideas to move forward with. A presentation from the economic analysis sub consultant will be provided, which will expand on demographic information, recent development trends, redevelopment potential, and implementation strategies to consider. There will also be a presentation on relevant case studies, including those that are representative of some of the concepts and themes that emerged from prior Committee meetings, the property owners interviews, and the public. The meeting will conclude with a brief discussion on developing priorities and ultimately a vision statement that is built upon Council Principles for the project. The Committee will be asked to provide input on these elements between the March and April meeting. Staff will also provide a brief overview of the upcoming Committee and Property Owners Panel workshop that is scheduled for April.

A copy of the Eastgate/I-90 Corridor CAC final report has been included in this packet to provide a better understanding of the end result of the work of the Committee.

If you have any questions between now and the meeting, please do not hesitate to contact me.



Citizen Advisory Committee Meeting

Thursday, March 2, 2017

6:00 - 8:00 p.m. Room 1E-112

Bellevue City Hall - 450 110th Avenue NE

Agenda

- | | |
|------------------|--|
| 6:00 p.m. | 1. Call to Order and Approval of Agenda
<i>Co-chairs Barksdale and Wu</i>
<i>(Motion to approve)</i> |
| | 2. Approval of minutes of February 2, 2017 meeting
<i>(Motion to approve)</i> |
| | 3. Communication with Boards, Commissions, Stakeholders, Public and Meeting Updates |
| | 4. Public Comment
<i>Limit to 3 minutes per person</i> |
| 6:15 p.m. | 5. Results of Public Survey
Identify common themes between CAC discussion, Stakeholder Interviews and Public Survey
<i>Bradley Calvert / Keith Walzak</i> |
| 6:45 p.m. | 6. Economic Information and Discussion
Present early economic research and market analysis
<i>Brian Vanneman (Leland Consulting)</i> |
| 7:15 p.m. | 7. Case Studies
Presentation of relevant case studies
<i>Bradley Calvert / Keith Walzak</i> |
| 7:50 p.m. | 8. Prioritizing Assets, Opportunities, and Framework
Discussion on establishing priorities that will inform the overall vision of the Wilburton Commercial Area
<i>Bradley Calvert / Keith Walzak / John Savo</i> |
| 8:00 p.m. | 9. Adjourn |

*Agenda times
are approximate*

Project website located at <http://www.ci.bellevue.wa.us/grand-connection.htm>. For additional information, please contact the Wilburton - Grand Connection project manager: Bradley Calvert (425-452-6930, bcalvert@bellevuewa.gov). Meeting room is wheelchair accessible. American Sign Language (ASL) interpretation available upon request. Please call at least 48 hours in advance. Assistance for the hearing impaired: dial 711 (TR).



Active Transportation and Real Estate

THE NEXT FRONTIER



**Urban Land
Institute**

Building Healthy
Places Initiative



Active Transportation and Real Estate

THE NEXT FRONTIER

Cover: The Schuylkill Banks Boardwalk forms a key section of the Circuit regional trail network, a burgeoning 750-mile (1,200 km) collection of trails that connects people and places throughout Greater Philadelphia and southern New Jersey. Nearby developments have leveraged access to the trail as a key differentiating amenity and have accommodated bicycle use within buildings. (© Richard Nowitz/Getty Images)

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About the Urban Land Institute

The Urban Land Institute is a nonprofit research and education organization whose mission is to provide leadership in the responsible use of land and in creating and sustaining thriving communities worldwide. Established in 1936, the Institute today has more than 37,000 members and associates from 82 countries, representing the entire spectrum of the land use and development disciplines.

ULI relies heavily on the experience of its members. It is through member involvement and information resources that ULI has been able to set standards of excellence in development practice. The Institute is recognized internationally as one of America's most respected and widely quoted sources of objective information on urban planning, growth, and development.

About the Building Healthy Places Initiative

Around the world, communities face pressing health challenges related to the built environment. Through the Building Healthy Places Initiative, launched in summer 2013, ULI is leveraging the power of ULI's global networks to shape projects and places in ways that improve the health of people and communities. Learn more and connect with Building Healthy Places: <http://www.uli.org/health>. Share your story via Twitter: #ulihealth.

About This Report

Active Transportation and Real Estate: The Next Frontier explores the interconnections among walking, bicycling, and real estate. Developers, owners, property managers, designers, investors, public officials, and others involved in real estate decision making can learn from the case studies described in this report to create places that both support and leverage investments in active transportation infrastructure, such as bike lanes and trails. In the process, they can create real estate value and promote economic, environmental, and public health goals.

ULI is grateful to the **Colorado Health Foundation** for its support of this project and the Building Healthy Places Initiative, as well as to the Randall Lewis Health Policy Fellowship Program for its assistance with research.

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Trends in Active Transportation

Active transportation was, until recently, the forgotten mode of travel. However, in recent years, investments in infrastructure that accommodates those who walk and ride bicycles have begun to reshape communities. Sometimes called “nonmotorized transportation,” active transportation involves human-powered activity, primarily walking and bicycling.

Walking, of course, is as old as humankind, but in places around the world, including the United States—a country that over the past several decades has been designed around motor vehicles—walking and bicycling came to be considered the domain of children, the elderly, or people without the financial means to own a car. Today, however, walkable and bike-friendly communities are growing in popularity.

Fifty percent of U.S. residents say that walkability is a top priority or a high priority when considering where to live, according to the Urban Land Institute’s *America in 2015* report, and, according to the U.S. Census, bicycling has become the country’s fastest-growing form of transportation for commuters.

Bike-sharing systems are becoming increasingly popular in cities throughout the world. (Shutterstock/Rostislav Glinsky)





Trails can provide relaxing and healthy commuting routes between towns and cities. *(Copenhagen Cycle Superhighways)*

Bicycling is also still growing in popularity in places that started making the shift to bicycle transportation over the last half-century. The city of Amsterdam, for instance, reports that even though it has long been known as one of the most bike-friendly cities in the world, the number of local bicycle trips has increased by more than 40 percent since the 1990s.

Other world capitals, such as Singapore, currently have comparatively low bicycling rates, but are investing in infrastructure to promote cycling as a healthy, environmentally friendly commuting option. In 2011, only 1 percent of all trips in Singapore were by bicycle, but the government aims to significantly increase this figure by creating safer and more convenient bike routes.

Communities big and small are now investing in bicycle and pedestrian infrastructure. These trends are reshaping destinations across the globe, and have the potential to benefit people of all income brackets, since biking provides mobility for those needing or wanting a less expensive alternative to automobile ownership, maintenance, and use. This report examines the implications of the growing interest in active transportation on economic development, public health, air quality, community design, and real estate investment.

Research shows that the built environment (including buildings, streets, and neighborhoods) has a profound impact on health outcomes. An *American Journal of Preventative Medicine* study found that people who live in neighborhoods with shops and retail establishments within walking distance have a 35 percent lower risk of obesity.

Bicycling can also reduce energy consumption and greenhouse gas emissions. The European Cyclists Federation found that, if levels of cycling in the European Union were equivalent to those found in Denmark, where the average person cycles almost 600 miles (965 km) each year, bicycle use alone would achieve 26 percent of the 2050 greenhouse gas reduction targets set for the transportation sector.

Through supporting bike infrastructure, real estate professionals who influence the built environment can play a significant role in creating healthier, more sustainable communities. They can also help position their projects and communities in a marketplace that increasingly values active transportation.



Integrating bike-friendly infrastructure into development projects allows cyclists to make active transportation a part of their daily lives. *(Ed McMahon)*

Bicycling Is Booming

Bicycling has recently undergone a renaissance in locations across the world, with an increasing number of people taking to the streets by bike. In the United States, the U.S. Census showed that the number of people who traveled to work by bike increased roughly 62 percent between 2000 and 2014, while Transport for London found that, in 2014, cycling in London reached its highest rate since record keeping began.

Economic considerations, such as the high cost of owning, operating, and insuring a car—which averaged nearly \$8,700 in the United States in 2015, according to AAA—as well as environmental, social, and health factors, have caused a boom in the cycling economy, with indications that this will be a long-term trend.



Who is biking and why? The answer is all kinds of people, on all kinds of bikes, for all kinds of reasons. Today, one sees kids biking to soccer practice, men and women in business attire headed to work, people making short trips to the grocery store or to visit friends, college students going to class, senior citizens out for exercise, and tour groups on bicycle vacations.

It is generally only when cities invest in bicycle infrastructure that residents and visitors begin to use bicycles at rates that exceed the national average. Consider Portland, Oregon, for example: In the 1980s and early 1990s, Portland was a city pretty much like any other in terms of transportation behavior. As of 2014, more than 7 percent of residents commuted to work by bicycle, compared with the national average of less than 1 percent (see figure 1).

Bicycle use in Portland has grown exponentially while other modes have grown relatively modestly or declined. According to the City of Portland Bureau of Transportation, bicycle commuting since 1990 has grown by 400 percent, while transit has grown by just 18 percent and driving has declined by 4 percent.

Steve Townsen, Portland's city engineer, attributes the bicycling boom to investment in bicycle infrastructure, saying, "Bicycling infrastructure is relatively easy to implement and low-cost compared to other modes."

The city of Portland estimated the cost of its 300-mile (483 km) network of bike trails, bike lanes, and bike boulevards at approximately \$60 million in 2008, which is about the same cost as one mile (1.6 km) of four-lane urban freeway.

Another city where bicycling has boomed is Minneapolis. According to the U.S. Census, almost 5 percent of Minneapolis residents biked to work in 2014, and bike commuting grew by more than 186 percent between 1990 and 2014.

Even in winter, approximately one-third of regular commuters bike to work at least some of the time, according to Bike Walk Twin Cities. As of 2015, Minneapolis had 129 miles (208 km) of on-street bikeways and 97 miles (156 km) of off-street bikeways, with plans to keep growing the network. "Biking is a huge part of who we are," explains R.T. Ryback, former mayor of Minneapolis.

Minneapolis has a long-term goal of 15 percent of citywide transportation being by bicycle by 2025. This is certainly possible if one considers that several large European cities—such as Copenhagen and Amsterdam—have bicycle commuting rates exceeding 40 percent, according to Copenhagenize, an international bike and pedestrian consultant firm. According to the U.S. Department of Transportation's 2009 National Household Travel Survey, half of all trips taken by people in the United States are under three miles (equivalent to a 20-minute bike

ride). This shows that Minneapolis's goal could be achieved with continuing investments in bicycling infrastructure. Bicycle commuting rates are also growing in the largest U.S. cities (places with populations exceeding 1 million). The U.S. Census showed that Philadelphia had the highest bicycle commuting rate in 2014, at 1.9 percent, followed by Chicago at 1.7 percent. Philadelphia's bike commuting rate grew nearly 237 percent between 1990 and 2014, and the rate in Chicago grew at a whopping 506 percent during the same period.

Economic Benefits of Active Transportation

As bicycling and walking networks have grown, so have active transportation-oriented developments and bike-friendly businesses. The bicycle industry sold over \$6 billion worth of bikes and equipment in 2014, according to the National Bicycle Dealers Association.

A 1996 American Greenways Program study found that the Denver metropolitan area (population at the time, about 2 million) had 149 bicycle dealers. By contrast, the Atlanta metropolitan area, with a population of more than 3 million, had only 28 bicycle dealers. The explanation: In 1996, Denver had 200 miles (322 km) of paved off-road bike trails, while the Atlanta area had fewer than

FIGURE 1

Bicycle Commuting Rate for Large U.S. Cities, 2014

City	Rate
Portland, OR	7.2%
Minneapolis, MN	4.7%
San Francisco, CA	4.4%
Washington, DC	3.9%
Seattle, WA	3.7%
Oakland, CA	3.7%
Tucson, AZ	3.5%
New Orleans, LA	3.4%
Denver, CO	2.5%
Boston, MA	2.4%

Source: U.S. Census Bureau, *American Community Survey 2014, Journey to Work*.

Four Ways Protected Bike Lanes Boost Economic Growth



Fueling redevelopment to boost real estate value. As city populations grow, motor vehicle congestion increases. New roads are rarely an option in mature cities. Protected bike lanes bring order and predictability

to streets and provide transportation choices while helping build neighborhoods where everyone enjoys spending time. By extending the geographic range of travel, bike lanes help neighborhoods redevelop without waiting years for new transit service to debut.



Making workers healthier and more productive. From D.C. to Chicago to Portland, the story is the same: people go out of their way to use protected bike lanes. By creating clear delineation between auto and bike

traffic, protected bike lanes get more people in the saddle—burning calories, clearing minds, and strengthening hearts and lungs. As companies scramble to lower health care costs, employees who benefit from the gentle exercise of pedaling to work help boost overall hourly productivity and cut bills.



Helping companies score talented workers.

Savvy workers, especially millennials and members of generation X, increasingly prefer downtown jobs and nearby homes.

Because protected bike lanes make biking more comfortable and popular, they help companies locate downtown without breaking the bank on auto parking space, and allow workers to reach their desk the way they increasingly prefer: under their own power.



Increasing retail visibility and sales volume.

In growing urban communities, protected bike lane networks encourage more people to ride bikes for everyday trips. And when people use bikes for errands, they

are the ideal kind of retail customers: regulars. They stop by often and spend as much or more per month as people who arrive in cars. Plus, ten customers who arrive by bike fit in the parking space of one customer who arrives by car.

Source: Text verbatim from “Protected Bike Lanes Mean Business,” by PeopleforBikes and the Alliance for Biking & Walking.

20 miles (32 km). Since that time, the Atlanta region, with the help of local cycling advocates and federal transportation monies, has built numerous bike trails and is advancing a bicycle beltway, which is known as the Atlanta BeltLine.

The economic impact of bicycling and walking goes well beyond bike sales. Numerous studies have shown that real estate values increase with proximity to bicycle paths and walking trails. For example:

- >> **Indianapolis, Indiana.** A 2014 study of Indianapolis’s eight-mile (13 km) Indianapolis Cultural Trail by the Indiana University Public Policy Institute found that since its opening in 2008, the value of properties within a block of this high-quality biking and walking trail has risen an astonishing 148 percent. The value of the nearly 1,800 parcels within 500 feet (152 m) of the trail increased by more than \$1.01 billion over the same period. Given the fact that this eight-mile (13 km) landscaped trail around the heart of the city cost only \$62.5 million (mostly provided by private or philanthropic sources, as well as a federal Transportation Investment Generating Economic Recovery [TIGER] grant), the city has declared it not just a quality-of-life asset, but an economic boon as well.
- >> **Dallas, Texas.** Since the opening of the 3.5-mile (5.6 km) Katy Trail in the Uptown neighborhood of Dallas in 2006, property values have climbed nearly 80 percent, to \$3.4 billion, according to Uptown’s business improvement district.
- >> **Radnor, Pennsylvania.** A 2011 study by the GreenSpace Alliance and the Delaware Valley Regional Planning Commission found that properties within a quarter-mile (0.4 km) of the Radnor Trail in Radnor Township, Pennsylvania, were valued on average \$69,139 higher than other area properties further away. Real estate listings in Radnor frequently mention trail access in their advertisements.



- >> **Atlanta BeltLine.** In 2013, REMAX Realty in Atlanta explained that homes near the BeltLine—a transit and trail loop around the city that will include a planned total of 33 miles (53 km) of pedestrian and bicycle trails—were selling within 24 hours. Before the Atlanta BeltLine project began, homes along the corridor had typically stayed on the market for 60 to 90 days.
- >> **Minneapolis, Minnesota.** A University of Minnesota study found that, in the Minneapolis/St. Paul area, for every 1,312 feet (400 m) closer a median-priced home is to an off-street bicycle facility, its value increases by \$510.
- >> **United States.** A 2009 nationwide study by CEOs for Cities, a cross-sector organization that develops ideas to make U.S. cities more economically successful, found that “houses located in areas with above-average walkability or bikability are worth up to \$34,000 more than similar houses in areas with average walkability levels.”



Bike lanes physically separated from the roadway provide safe ways to integrate cycling as part of a city's transportation system. (Shutterstock/Ashira Maythamongkhonkhet)

ACTIVE TRANSPORTATION, RETAIL, AND ECONOMIC DEVELOPMENT

A growing body of evidence exists that bicycling has a positive impact on retail sales, commercial property values, and overall economic development. In fact, a growing group of entrepreneurial innovators are discovering that bike trails and bike lanes can help modern retailers get more customers in the door and boost sales. In Europe and Asia, bikes have long been used for shopping and other everyday errands. Now, Americans are learning that bikes equipped with baskets or racks can make shopping fun and easy.

Research by the Alliance for Bicycling and Walking shows that customers who bike to a store typically buy less in a single visit than people who drive, but they return more often and spend more overall per month.

Some examples of the positive impact of cycling on retail sales and on commercial and economic development include the following:

- >> **New York, New York.** A 2011 study by the New York City Department of Transportation found that rents along New York City's Times Square pedestrian areas and bicycle lanes increased 71 percent in 2010. This was the greatest rise in the city and a sign that there is a high demand for and low supply of human-friendly streets.
- >> **Salt Lake City, Utah.** A study by the Salt Lake City Department of Transportation found that “replacing parking with protected bike lanes increased retail sales.” A general street upgrade on Broadway Avenue removed 30 percent of on-street parking from nine blocks of the major commercial street, but improved crosswalks and sidewalks and added protected bike lanes. In the first six months of the next year, retail sales were up 8.8 percent over the first six months of the previous year, compared with a citywide increase of only 7 percent. After the changes, 59 percent of business owners said they supported the street improvements, while only 18 percent opposed them.
- >> **Dunedin, Florida.** A study of the Pinellas Trail found that retail vacancies in the town of Dunedin, Florida, declined by more than 50 percent after the opening of the popular trail. New businesses included several restaurants, a bike shop, an outdoor equipment supplier, a bed-and-breakfast operation, and a coffee shop.

>> FIGURE 2 Shopping by Bicycle Leads to Smaller Trips and More Visits

People who arrive to a business on a bike spend less per visit but visit more often than people who arrive by car, resulting in more money spent overall per month.



Source: "Protected Bike Lanes Mean Business," PeopleForBikes and the Alliance for Biking & Walking.

- >> **San Francisco, California.** A San Francisco State University study found that when the city of San Francisco reduced car lanes and installed bike lanes and wider sidewalks on Valencia Street, two-thirds of merchants said the increased levels of bicycling and walking improved business. Only 4 percent said the changes hurt sales.
- >> **Sydney, Australia.** The city of Sydney found that building 124 miles (200 km) of planned bikeways would generate at least AU\$506 million (US\$354 million) in economic benefits. The network was also expected to reduce traffic congestion by 4.3 million car trips per year and to increase bicycle trips by 66 percent by 2016, leading to AU\$147 million (US\$103 million) in additional health benefits.
- >> **United Kingdom.** The London School of Economics found in 2011 that cycling generates nearly £3 billion (US\$4.32 billion) for the United Kingdom's economy each year.

BICYCLING AND TOURISM

Bike-friendly cities and towns are also finding that bicycle facilities boost the tourism economy and encourage extended stays and return visits. Tourism is one of the world's largest industries. The U.S. Travel Association explains that U.S. residents spend over \$800 billion a year on travel and recreation away from home.

Bike touring and recreational bicycling have long been staples of the tourism economy. In Wisconsin, for example, bike tourism is estimated to contribute \$1.5 billion to the state's economy each year, according to a University of Wisconsin–Madison study. Bicycle-friendly communities are finding that bike trails and other active transportation infrastructure encourage visitors to stay longer, spend more, and come back more often.

More people ride bikes than play golf or ski. Bicycle-friendly destinations like Sanibel Island, Florida; St. Simon's Island, Georgia; and Hilton Head, South Carolina, have long known that bike trails and walking paths are very good for tourism and for second-home development. Charles Fraser, the developer of Sea Pines Resort on Hilton Head Island, South Carolina's first master-planned community, often told friends that many more people came to walk and ride bikes on the resort's trails and beaches than came to play golf. *Hilton Head Magazine* explains that the success of the 15 miles (24 km) of paved trails in Sea Pines eventually led to the creation of a total of 112 miles (180 km) of trails across Hilton Head Island and that demand for bike rentals within the resort went up by more than 25 percent between 2011 and 2014.



Top: Scenic pathways can connect bicyclists with nature and recreational destinations as well as with urban centers. (Shutterstock/HeliHead)

Bottom: Bicycling is one of the most popular forms of transportation in Amsterdam, where there are more bikes than residents. (Shutterstock/kavram)

What's more, bicycle infrastructure can help tourism-oriented communities maximize the benefits of tourism while minimizing burdens such as traffic congestion. Bike-friendly destinations, like Nantucket and Martha's Vineyard in Massachusetts, have reduced the need for large, unsightly, and expensive motor vehicle parking lots by constructing a network of off-road bike paths that provide easy access to island beaches and other attractions. A North Carolina Department of Transportation study found that a one-time investment of \$6.7 million for a network of bike lanes in the Outer Banks has yielded an annual nine-to-one return on investment thanks to increased bicycle tourism.

Bike races and bike touring are another part of the growing bicycle economy. Consider, for instance, RAGBRAI, which stands for "the Register's Annual Great Bicycle Ride Across Iowa." Now in its 44th year, this seven-day event attracts tens of thousands of participants who cycle across Iowa following a different route each year. The ride has a huge economic impact for the state—a 2008 study by the University of Northern Iowa found that the event generates over \$25 million in direct spending. The small towns along the route compete to provide lodging and sell food, beer, massages, souvenirs, and much more to the thousands of participants and spectators who take part each year.

Likewise, in 2014, the first stages of the Tour de France bicycle race took place in the United Kingdom. A study by event organizers, including Leeds City Council and Transport for London, found that this "Grand Départ" generated £128 million (US\$184 million) in total revenue, with £102 million (US\$146 million) for the Yorkshire region alone.

In addition to large bicycle events, individual and small-group bike touring is growing by leaps and bounds. A 2012 European Union study found that an estimated 2.3 billion cycle tourism trips occur in Europe, with a value greater than €44 billion (US\$48 billion) per year.

In the Canadian province of Quebec, a 2014 study by the University of Quebec at Montreal found that cycling tourists spend an average CAD\$214 (US\$152) per day—6 percent more than other types of tourists while cycling the La Route Verte, a 3,128-mile (5,034 km) bikeway network in Quebec.

In the United States, a 2012 study of the Great Allegheny Passage trail in Pennsylvania and Maryland found that businesses along the trail attribute 30 percent of their gross revenues to the trail, and close to half of the surveyed businesses said that the trail was a significant factor in their decisions to expand.

Bicycle Infrastructure

Bicycle use, whether for transportation or recreation, is highly dependent on the existence of bicycle infrastructure. Experience demonstrates that investments in bicycle infrastructure yield results regardless of climate, topography, city size, or other factors. The biggest impediment to more widespread bicycle use is people's fear of being hit by a motor vehicle. Steady increases in bicycling can be traced to increases in the safety and convenience of bicycle infrastructure. As recently as 25 years ago in the United States, just about the only place to ride a bike was in the street, where riders had to compete with drivers.

Then, in 1991, the U.S. Congress passed the Intermodal Surface Transportation Efficiency Act (ISTEA), which for the first time set aside federal transportation dollars for the construction of bicycle and pedestrian infrastructure. While less than 2 percent of federal transportation funding

went into bicycling and pedestrian projects, this amounted to a huge increase in funding for bicycle infrastructure.

According to the Federal Highway Administration, in 1992, only 50 bike projects received federal funding. By 2002, the number of bike projects receiving federal funding had jumped to 1,287; and by 2010, the federal government was funding 2,763 projects.

No longer relying solely on traditional bike lanes with just a few inches of white paint to give people on bikes a feeling of safety on busy city streets, modern bikeway design includes grade-separated bike trails, protected bike lanes (bike lanes using curbs, planters, parked cars, or simple posts to clearly separate bikes from auto traffic and sidewalks), and bicycle boulevards (low-traffic streets optimized for cycling). Now there are even so-called bicycle freeways that include separate unidirectional paths for each direction of bicycle travel that are fully segregated from pedestrian paths.

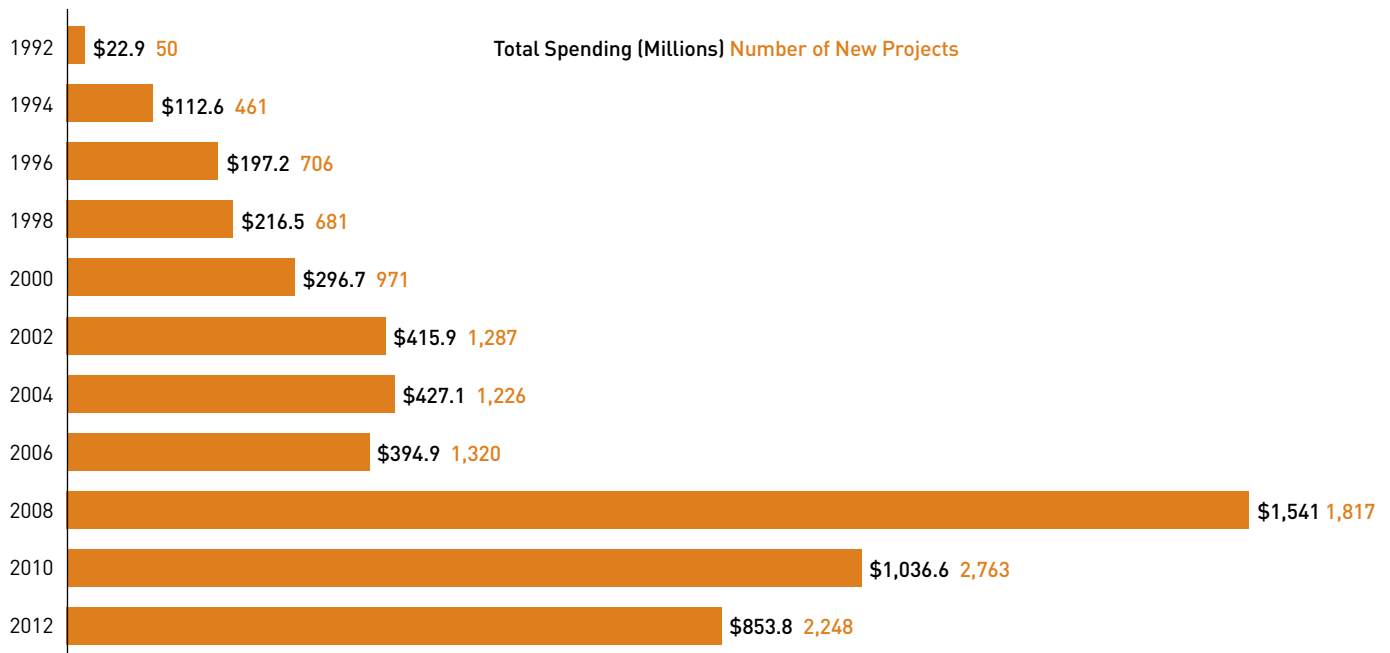
A 2010 study published in the *Journal of Injury Prevention* examined six Montreal protected bike lanes, also known as cycle tracks, and found that these streets had reduced injury rates of 28 percent compared with similar streets without protected bicycle infrastructure. As of 2015, 150 miles (241 km) of Montreal's 400 miles (644 km) of bike lanes were physically separated from motor vehicle traffic.

Since 2006, Seville, Spain, has installed more than 81 miles (130 km) of protected bike lanes—and the results speak for themselves. The Institute for Transportation & Development Policy reports that, between 2006 and 2012, the number of daily cyclists went from 5,000 to 72,000 per day and from a rate of less than 0.5 percent of trips to around 7 percent.

Bicycle infrastructure is being erected all over the world, with examples including 87 miles (140 km) of bikeways—much of it physically segregated from motor traffic—built in Buenos Aires, Argentina, between 2012 and 2015, and plans to construct the world's longest single protected bike lane, measuring 114 miles (184 km), across five provinces in Thailand by 2017.

FIGURE 3

>> Federal Funds Budgeted for Bike Lanes and Other Projects



Source: Federal Highway Administration.



BICYCLE SHARING

Another infrastructure investment that has helped active transportation go mainstream is the development of bicycle-sharing systems. Bicycle sharing is a service in which bikes are made available for shared use by individuals on a short-term basis.

Bike-share systems allow people to borrow a bicycle from one place and return it to another. To encourage the use of bicycles, many bike-share systems offer memberships that make the first 30 to 45 minutes free or very inexpensive. This allows each bike to be used by several riders per day.

In 2004, there were just 13 large municipal bike-share systems worldwide. This figure increased to more than 800 as of 2015, with over 200 in China alone. Some of the largest bicycle-sharing systems are in China, where the city of Wuhan had 90,000 bikes as of 2014. The largest bike-share system outside China is in Paris, where the Vélib' system offers over 21,000 bicycles at 1,800 stations.

Bike sharing is now growing rapidly in North America, with more than 50 systems launched between 2010 and 2015. The largest bike-share system as of 2015 in the United States is New York City's CitiBike, with more than 7,500 bicycles and 460 stations. Mexico City's ECOBICI had 6,600 bikes and 444 stations as of 2015.

For more information on bicycle sharing, see the "Bicycle Sharing" profile on page 54.



Bike-share stations allow users to cycle between employment destinations and residential and commercial areas. (Shutterstock/Ekaterina Pokrovsky)

Becoming Bicycle Friendly

What does it take to create a bicycle-friendly community? Obviously, providing bike infrastructure is the first step, but other factors are important as well. The League of American Bicyclists says that no single route to becoming a "bicycle-friendly community" exists. No two communities are the same, and each can capitalize on its strengths to make biking better and safer, but the league recommends five key "Essential Elements of a Bicycle-Friendly America":

- >> **Engineering.** Have facilities been built to promote cycling in the community? What is the total mileage of the bicycle network, both on-road and off-road? Do arterial streets have bike lanes? What is the availability of bike parking? Signals? Repair shops? Does the bike network connect to major community destinations like schools, neighborhoods, and the downtown?
- >> **Encouragement.** Does the community promote and encourage cycling through events, campaigns, and incentives? Is there a bicycle club? A bicycle advisory committee? A bicycle advocacy organization? Does the community promote a bike-to-work day, week, or month?
- >> **Education.** Does the community do education about bike safety for both cyclists and motorists? Is there a community-wide bike map? How about bicycle-skills classes on repairs and ridership? Is the community aware of the location of bike trails and other facilities?
- >> **Enforcement.** Does the community have bicycle-friendly laws and policies in place? Does the community use enforcement to encourage cyclists to obey the laws and motorists to share the road? Do police patrol the bike trails? Are they plowed during the winter?
- >> **Evaluation and planning.** Does the community know how many people cycle and for what reasons? Is the bike plan current? Is it being implemented? Should it be updated? Is there a bike program coordinator or staff person? Does the city have data on ridership, crashes, and fatalities?



Bicycling is becoming an increasingly popular transportation option for commuters around the world. (Shutterstock/Mikael Damkier)

BICYCLE-FRIENDLY BUSINESSES

Businesses, building owners, and developers are all starting to recognize and respond to the growing interest in active transportation. The League of American Bicyclists' Bicycle-Friendly Business Program now lists more than 1,090 bicycle-friendly businesses in 49 states.

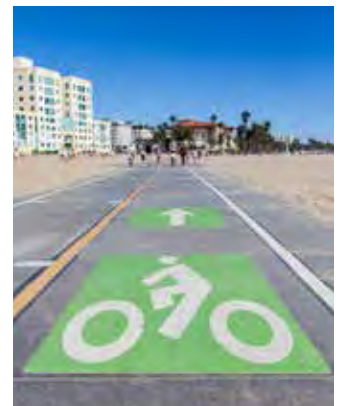
Through this program, businesses are recognized for their efforts to encourage their employees and customers to ride bikes. The list of bicycle-friendly businesses has grown from just a handful a few years ago to a long list that now includes businesses both big and small.

Today, companies like Target, Facebook, Kimberly-Clark, and the DaVita Corporation have joined hundreds of small businesses, nonprofit groups, and universities on the growing list of bicycle-friendly businesses.

Employers say that bicycling can create healthier employees who are more energetic, alert, and productive, and building owners say that bike-friendly buildings can help attract tenants, residents, and customers while also providing a value premium.

Becoming a bicycle-friendly business is relatively inexpensive and easy; it starts with the infrastructure. Some of the key features that bike-friendly businesses provide, as explained by the league, include the following:

- >> **Bike parking.** Ample secure, convenient, and high-quality bicycle parking for employees and guests.
- >> **Shower and locker facilities.** Showers, lockers, and changing areas provided for employees.
- >> **Bike repair areas.** Tools, supplies, and a work stand for employees to use.



Bicycling infrastructure can connect people to recreational destinations such as beaches. (Shutterstock/PerseoMedusa)



- >> **Shared bikes.** Shared bicycles that staff can use for noncommute trips, like running errands or going to meetings.
- >> **Easy access.** Easy access by bike from a network of dedicated bikeways or low-traffic streets.

As shown in the project profiles that follow in chapters 2 and 3, residential and commercial developers are recognizing the value of trail-oriented development and we are now seeing a new generation of bicycle-friendly buildings and projects.

By adding bike-friendly amenities, developers and homebuilders are finding that they can appeal to both ends of the demographic spectrum: young people who want to live closer to work as well as baby boomers who are looking for a more walkable and bikable lifestyle.



Above: Bicycle traffic signals can improve road safety by giving cyclists extra time to cross busy intersections. (Shutterstock/Carsten Medom Madsen)

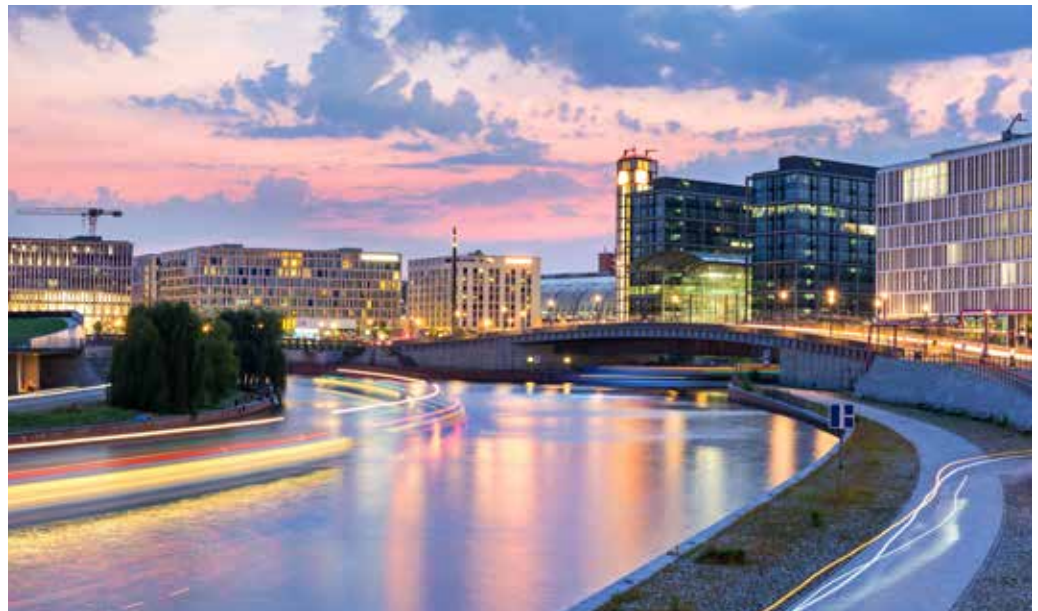
Below: Cities such as Berlin are improving bicycle routes to accommodate an influx of residents and development projects. (Shutterstock/pixelklex)

Trail-Oriented Development

Infrastructure—the physical facilities and systems that support economic activity—is a key driver of real estate investment and development. Historically, real estate was influenced by the quality and location of roads, bridges, and other forms of auto-oriented infrastructure. The Interstate Highway System, for example, was a critical factor in the growth of suburban America.

More recently, *transit-oriented development* has become a common term in the lexicon of real estate and transportation officials. Transit-oriented development is characterized by compact, mixed-use, residential, and commercial development that is clustered around a transit stop or a rail station. Today, bike trails, bike lanes, bike-share systems, and other forms of active transportation infrastructure are helping spur a new generation of “trail-oriented development.” This trend reflects the desire of people around the world to live in places where driving an automobile is just one of a number of safe, convenient, and affordable transportation options. The Urban Land Institute’s *America in 2015* report found that, in the United States, over half of all people (52 percent) and 63 percent of millennials would like to live in a place where they do not need to use a car very often; half of U.S. residents believe their communities need more bike lanes.

The detailed case studies that follow illustrate the many types of residential and commercial development that are leveraging bicycle and pedestrian infrastructure to create popular and profitable projects and places.





The rate of commuter cycling is increasing in cities across the globe, with residents demanding safe and convenient trails and bike lanes between their homes and places of employment. (Shutterstock/sashagala)

Active Transportation and Quality of Life

Would you prefer to live in a community where you have to drive everywhere for everything? Or would you prefer to live in a community where you could walk, ride a bicycle, take public transportation, or drive to get where you want to go? The growth in the popularity of walking and bicycling is a result of many factors, but at its core it is about people choosing a lifestyle that gives them more options and requires less dependence on motor vehicles.

Since its inception, the federal and state governments in the United States have spent approximately \$5 trillion to build and maintain the Interstate Highway System. Until recently, federal investments in bicycle and pedestrian infrastructure amounted to less than a tenth of 1 percent of this amount. Now, governments at all levels are rediscovering the value of active transportation, and the creation of bicycle infrastructure is prompting real estate development.

The long-range potential of cycling as a mode of transportation is immense. According to the Rails-to-Trails Conservancy, if the United States doubled the current 1 percent of all trips by bicycle to 2 percent, the country would collectively save more than 693 million gallons (2.6 billion liters) of gasoline each year. The United States would also cut air pollution, lower carbon emissions, and greatly improve public health.

According to the Institute of Transportation Studies at the University of California–Davis, in every country, at least 35 percent of trips are under 3.1 miles (5 km), which is equivalent to a 20-minute ride on a bicycle. However, less than 7 percent of urban trips globally are taken on a bike. If 23 percent of trips were taken on bikes by 2050, the world would avoid 300 megatons of CO₂ emissions, leading to a cumulative savings of \$25 trillion between 2015 and 2050.

The value of cycling has already been demonstrated in bicycle-friendly communities across the globe. Cities that have invested in bike infrastructure have reaped economic and development returns. And, as this report shows, developers who have responded to this trend are being rewarded with both plaudits and profits.

Real Estate Development Projects

Is there market demand for projects that cater to people who ride bicycles? What is the value of access to trails, bike lanes, and sidewalks for developers? How are bike-friendly features being used to position real estate developments in a competitive marketplace?

This chapter profiles development projects that have active transportation components at the core of their identities. The profiles illustrate how developers are choosing sites along popular bicycling and walking routes and including bicycle-friendly amenities in their projects. The profiles show how these amenities have helped meet overall development objectives and also include insights from developers on the rationale for investing in active transportation features.

Eight of the projects profiled in this chapter are located in the United States, with additional case studies from London and Singapore. Projects range from a large mixed-use complex in a world capital to a smaller workforce housing development in a medium-sized market. While a wide diversity of projects is included, they share themes regarding the specific active transportation features included and the value of these investments.

The projects highlighted herein are at the leading edge of efforts to take advantage of civic investment in bicycling facilities, such as trails and bike lanes, and growing market demand for bike-friendly places. They were identified through input from a variety of ULI sources.

Shared themes among profiled projects include the following:

>> Trails, bike lanes, bike-share stations, and sidewalks add value to development projects.

Developers associated with the profiled projects explained that locations along active transportation routes were highly desirable due to increased project visibility, the growth in the popularity of car-free commuting, and the desire of potential tenants to have access to opportunities to live healthier lifestyles.

Project	Location	Use	Dedicated bicycle storage areas	Extra-wide hallways or bike elevators
Bici Flats	Des Moines, IA	Multifamily	X	X
Circa	Indianapolis, IN	Multifamily	X	
Flats at Bethesda Avenue	Bethesda, MD	Mixed use	X	X
Gotham West	New York, NY	Mixed use	X	
Hassalo on Eighth	Portland, OR	Mixed use	X	
MoZaic	Minneapolis, MN	Mixed use	X	
Ponce City Market	Atlanta, GA	Mixed use	X	X
Silver Moon Lodge	Albuquerque, NM	Mixed use	X	
250 City Road	London, UK	Mixed use	X	X
Westwood Residences	Singapore	Multifamily	X	

>> Overview of Development Profiles



(Sarah Dorio)

- >> **A market for the inclusion of bike-friendly features in residential and commercial properties exists and is growing.** There is demand for accommodating bicycles in apartments, offices, and commercial spaces. Developers have found that tenants of buildings close to active transportation corridors expect to be able to own, maintain, and have easy access to bicycles on site and that this trend is expanding across age groups.
- >> **Relatively small investments in bike-friendly amenities can lead to improved returns.** Many of the developments that have included bike-friendly features have experienced faster-than-expected lease-up rates, rental rate premiums over market peers, and, in some cases, the ability to market properties outside city centers as easily accessible to urban cores via trails and bike lanes.
- >> **A reciprocal relationship exists between the private and public sectors in terms of maximizing investments in active transportation.** Developers have benefited from the ability to build in sought-after locations that are close to publicly financed active transportation routes, but have also made direct investments in active transportation by partially financing improvements to facilities, such as trail networks or bike-sharing systems, via public/private partnerships.
- >> **Approaches to accommodating active transportation in development projects can be grouped into ten categories.** Shown in the figure below, many of the active transportation-friendly features included in the profiled developments were common across project type, market size, and location. All projects provided dedicated bicycle storage, and many accommodated on-site bicycle repairs.

The projects highlighted in this publication show that leading development practitioners are recognizing the potential of the competitive advantage to be gained by investing in active transportation amenities. By leveraging and enhancing access to walking and bicycling facilities, they are helping initiate a win-win cycle of mutually reinforcing private and public sector investment in active transportation in communities around the world.

Bicycle workroom	Bike- washing station	Bike valet	Shower and/or locker facilities	Bicycle parts or mechanic available on site	Investment in on-site bike rentals or bike share	Bike park and ride	Investment in public active transportation infrastructure
X	X						
X	X				X		
						X	X
		X		X	X		
X	X	X	X	X			
			X				X
X		X	X				X
X					X		
X	X				X		X
X	X						X

Bici Flats

Des Moines, Iowa

BICI FLATS, a 154-unit multifamily development in Des Moines, Iowa, is located at the intersection of three paved trails that connect pedestrians and bicyclists to downtown. With a planned opening in 2016, Bici Flats will capitalize on its location by catering to prospective tenants who desire active lifestyles and access to urban amenities.

“Although Bici Flats is on the edge of downtown Des Moines, we will be able to charge downtown core rental rates because of the access that the trails provide to the urban center as well as the entirety of the metro.”

>> Alexander Grgurich, development analyst, Nelson Construction & Development

QUICK FACTS

Location
1405 SE First Street,
Des Moines, Iowa

Status
Under construction;
opening November 2016

Type of Project
Multifamily

Site Size
6 acres (14.8 ha)

Building Size
154 units; 160,000 square feet
(14,900 sq m)

Rental Rates
\$750–\$1,200

Project Cost
\$17.3 million

Developers
Nelson Construction & Development
and Titan Development &
Investments

Architect
Studio Melee

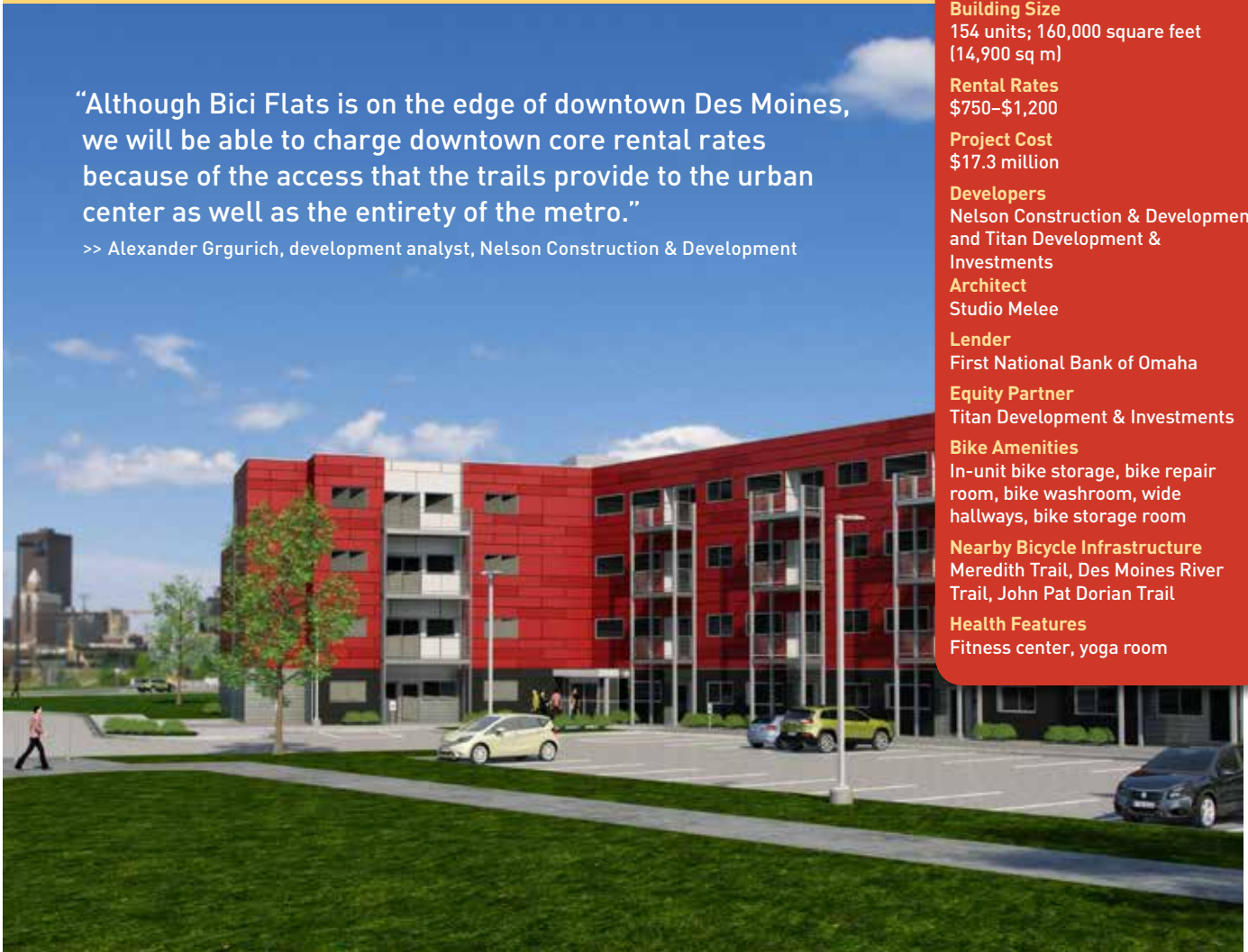
Lender
First National Bank of Omaha

Equity Partner
Titan Development & Investments

Bike Amenities
In-unit bike storage, bike repair
room, bike washroom, wide
hallways, bike storage room

Nearby Bicycle Infrastructure
Meredith Trail, Des Moines River
Trail, John Pat Dorian Trail

Health Features
Fitness center, yoga room



Bici Flats' location in the Two Rivers District of Des Moines will give residents access to the urban core via a network of trails. (PUSHpixel)

Context for Development

When planning for Bici Flats, developer Nelson Construction & Development looked to experiences with their existing properties and identified a market for multifamily housing just outside of the center of Des Moines. Residents at Nelson's developments noted that they were looking for locations with opportunities for walking, jogging, and bicycling.

Mike Nelson, president and owner of Nelson Construction & Development, explains that the "urban active" segment of the market is "attracted to trail access and bicycle-friendly amenities that allow them direct connections to downtown and other nearby recreational amenities."

The location of Bici Flats in the Two Rivers District, at the meeting point of the Meredith, John Pat Dorian, and Des Moines River trails, gives prospective tenants the option of a scenic walk or bicycle ride to downtown Des Moines, as well as access to open space.

All three trails provide views of the Des Moines and Raccoon rivers. The 3.1-mile (5 km) Meredith Trail connects Bici Flats to downtown Des Moines and forms a portion of 8.8 miles (14.2 km) of paved downtown loop trails. The trails also form connections to many of the 52 miles (84 km) of trails within city limits and 550 miles (885 km) in the larger region.

Alexander Grgurich, development analyst at Nelson Construction & Development, notes that "although Bici Flats is on the edge of downtown Des Moines, we will be able to charge downtown core rental rates because of the access that the trails provide to the urban center as well as the entirety of the metro."

Active Transportation-Friendly Features

In order to capitalize on the project's nearby trail infrastructure, Nelson Construction & Development worked to create a building that accommodates bike ownership. Active transportation-friendly features include the following:

- >> **Bicycle storage room.** There will be keycard-protected space for 125 bikes in the basement of the building.
- >> **In-unit bicycle storage.** Front closet "mud rooms" will be able to accommodate bikes both horizontally and vertically, or residents can choose to store bicycles on the patios or balconies included in every unit.
- >> **Wide hallways.** At 82 inches (208 cm) wide, hallways will be ten inches (25 cm) wider than the standard size, and tenants will be able to easily transport bicycles through the building.
- >> **Bike workroom.** A room that provides residents with access to work stands, basic bike repair tools, and air pumps will be included.
- >> **Bike washing station.** Tenants will be able to clean their bikes before rolling them through the building.

Directly adjacent to Bici Flats, the Meredith Trail provides scenic views of the Des Moines skyline. *(Tony Webster)*



Bici Flats is located at the intersection of three trails that connect walkers and cyclists with downtown Des Moines. *(PUSHpixel)*

Development Lessons

Bici Flats will be marketed primarily to recreational cyclists, but by facilitating bike ownership and access to active transportation routes that connect shops, restaurants, and employment centers, the development also reflects an expansion of the bicycle culture in Des Moines.

The city of Des Moines received a Bronze Award from the League of American Bicyclists in 2015 in recognition of the creation of new trails, bike parking, and bike-related events. The award, however, noted that the city has far to go in improving its on-road bicycle facilities. To that end, Des Moines approved \$500,000 to add bike lanes, trail connections, and shared-lane pavement markings to downtown streets in 2015.

Bici Flats' bike-oriented development features and the local investments in bicycle infrastructure reflect the growing demand for active transportation in Des Moines.

Grgurich explains, "We look to learn from this development and how tenants will interact with the bicycle amenities and trails." As opportunities for bicycling in the area continue to grow, Nelson Construction & Development will take note of how residents make use of the bike amenities at Bici Flats and will consider adding similar features to future projects.

Circa

Indianapolis, Indiana

QUICK FACTS

Location

617 N. College Avenue,
Indianapolis, Indiana

Status

Opened in August 2014

Type of Project

Multifamily

Site Size

3.1 acres (1.2 ha)

Building Size

265 units; 295,000 square feet
(27,400 sq m) across six buildings

Rental Rates

\$950–\$2,500

Project Cost

\$31 million

Developer

Milhaus

Architect

Blackline Studio

Lender

Regions Bank

Equity Partner

Undisclosed

Bike Amenities

Bike storage, workroom, bike
washing station, bike share

Nearby Bicycle Infrastructure

Adjacent to the Indianapolis
Cultural Trail

Health Features

Fitness center, swimming pool,
outdoor patio

CIRCA is a 265-unit multifamily development that opened in downtown Indianapolis in 2014. The project is adjacent to the Indianapolis Cultural Trail, a popular bike and pedestrian path that links vibrant downtown districts. The project's trailside location and the inclusion of bike-friendly amenities have contributed to the marketability of its units.



“The Indianapolis Cultural Trail adds tremendous value to Circa and has been the most transformative infrastructure investment in downtown Indianapolis in the last five to ten years.” >> Jake D. Dietrich, director of development, Milhaus



Context for Development

Circa's units are spread across six buildings that are directly adjacent to the Indianapolis Cultural Trail, an eight-mile (13 km) path that connects shops, art galleries, restaurants, and residential areas.

Milhaus, Circa's developer, recognizes the Indianapolis Cultural Trail's status as a transportation corridor that is increasing the vitality of the local area. Jake D. Dietrich, Milhaus's director of development, notes, "The Indianapolis Cultural Trail adds tremendous value to Circa and has been the most transformative infrastructure investment in downtown Indianapolis in the last five to ten years."

Milhaus decided to include bicycle-friendly features in its development to attract what Dietrich calls "a growing market segment of tenants demanding active lifestyles and urban living."

Circa's design is intended to make it easy for residents to get anywhere in Indianapolis on a bicycle. Dietrich explained that Circa's bike-friendly amenities give it an advantage over market competitors and can make the difference between whether or not someone leases a unit, since many in the area view biking as either their primary mode of transportation or a leisure activity that is central to their lifestyle.

Milhaus believes that the relatively low-cost investment the firm has made to offer features that support bicycling has paid off, saying that "the upfront capital expenditures in bike amenities are quickly recouped by the leases that they have a direct impact on securing."

Active Transportation-Friendly Features

Reflecting its location next to the Indianapolis Cultural Trail, Circa includes a number of features to appeal to bicycle owners, including the following:

- >> **Bicycle storage.** Included on the first floor of each of Circa's buildings, all storage rooms have dedicated entrances directly from the outside, which are secured by key fob entry. In total, there are 150 indoor, wall-mounted bike racks.
- >> **Complimentary bike-share service.** Residents and visitors can check out bikes, helmets, and locks for use in the local area.
- >> **Bike workroom.** Called the "Maker's Room," this area includes a work stand, bike-related tools, air pumps, and other supplies. The Maker's Room has a nine-foot-wide (2.7 m) garage door to allow residents to easily enter with bicycles.
- >> **Bike washing station.** There is a dedicated area with hoses, scrub brushes, and buckets to wash dirty bikes.

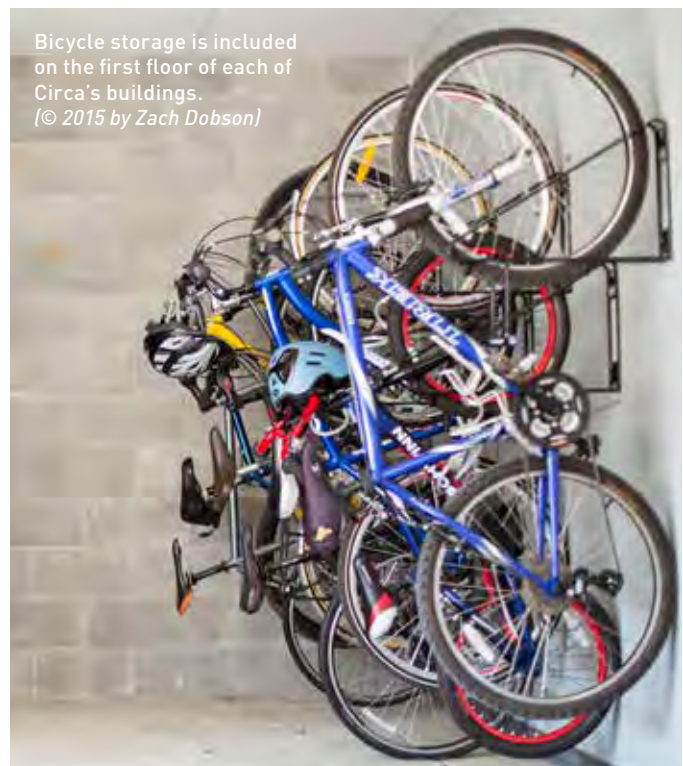
Development Lessons

Indianapolis's downtown population grew by more than 37 percent between 2005 and 2015, and the rate of bicycle commuting in the city grew by over 101 percent between 2000 and 2014. Circa's location on the Indianapolis Cultural Trail and inclusion of bike-friendly amenities both reflect these changing circumstances and support citywide investments in bicycle infrastructure.

Further reflecting the growing popularity of active transportation in Indianapolis, Milhaus is currently developing four new multifamily residential properties close to the Indianapolis Cultural Trail.

Tadd Miller, chief executive officer of Milhaus, believes that the Indianapolis Cultural Trail and surrounding residential properties are mutually supportive, saying that "developments add users to the trail and the trail increases the quality of life at nearby developments."

Miller explains that each increase in the number of pedestrians or bicyclists on the Indianapolis Cultural Trail is also an increase in the visibility of Circa and other trail-oriented development projects. Likewise, increasing the number of residents along the trail increases use of the trail, as walking or bicycling becomes an engrained part of residents' daily lives.



*Facing page: Circa provides access for residents to the Indianapolis Cultural Trail, a popular path that links various downtown districts.
(© 2015 by Zach Dobson)*

Flats at Bethesda Avenue

Bethesda, Maryland

THE FLATS AT BETHESDA AVENUE is a mixed-use development in Bethesda, Maryland, that opened in 2015. The project's location along the 11-mile (17.7 km) Capital Crescent Trail, which runs among Washington, D.C., and Bethesda and Silver Spring, Maryland, gives residents the option to commute to work on a bike and attracts pedestrians and bicyclists to on-site retail establishments.

QUICK FACTS

Location

7170 Woodmont Avenue,
Bethesda, Maryland

Status

Opened in 2015

Type of Project

Mixed-use

Site Size

1.4 acres (0.6 ha)

Building Size

162 residential units; 218,000 square feet (20,300 sq m), including 28,000 square feet (2,600 sq m) of retail

Rental Rates

Market-rate rents from \$2,200 to over \$6,500; 38 workforce units offered below market rate

Project Cost

\$217 million

Developers

StonebridgeCarras LLC and
PN Hoffman

Architect

SK+I Architects

Lender

Northwestern Mutual Life
Insurance Company

Equity Partners

Northwestern Mutual Life and
Buvermo Investments

Bike Amenities

Direct trail access, trail widening, on-site open space, bike drop-off, and bike storage

Nearby Bicycle Infrastructure

Adjacent to Capital Crescent Trail

Health Features

Fitness center, yoga room, and cardio machines

"Our residents love that they are one step from such a great D.C.-area rail trail." >> Jane G. Mahaffie, principal at StonebridgeCarras LLC

Residents of the Flats at Bethesda Avenue have direct access to the Capital Crescent Trail. (Jane G. Mahaffie)



Context for Development

The Flats at Bethesda Avenue consists of 162 market-rate and workforce residential units and 28,000 square feet (2,600 sq m) of retail space built on a former surface parking lot in downtown Bethesda. The development is adjacent to the Capital Crescent Trail—one of the busiest trails in the United States, with roughly 1 million users per year.

The Flats at Bethesda Avenue was created through a public/private partnership between Montgomery County and developers StonebridgeCarras LLC and PN Hoffman. This arrangement led to a project that leverages its trail-adjacent location to support retail tenants and accommodate active transportation.

Jane G. Mahaffie, principal at StonebridgeCarras, notes, “Immediate access of our residents and retail tenants to the Capital Crescent Trail is a fabulous amenity. Retail tenants Chop’t and Paul Bakery have frontage immediately to the trail, and the outdoor seating areas of all our restaurants are quite popular as a trail stop.”

Mahaffie adds, “Our residents love that they are one step from such a great D.C.-area rail trail. The Capital Crescent Trail is one facet of the premium location for the distinctive residences at the Flats at Bethesda Avenue.”

The Flats at Bethesda Avenue’s location along the Capital Crescent Trail serves residents who commute by bike, due to the trail’s access to Washington, D.C., and connections to other regional trails, including the C&O Canal Towpath and the Rock Creek Trail. A planned light-rail line, called the Purple Line, would run between Bethesda and New Carrollton, Maryland, alongside sections of the Capital Crescent Trail and would require reconfiguring a portion of the trail in downtown Bethesda.

Active Transportation–Friendly Features

Investments in active transportation–friendly infrastructure and biking and walking amenities at the Flats at Bethesda Avenue include the following:

- >> **Bicycle storage.** The Flats has a secured bike storage room for residents, which accommodates 60 bikes, with additional publicly accessible bike parking space along the trail and space for 30 bikes in the car parking garage.
- >> **Direct trail access.** Residential and retail tenants can walk or ride a bike on the Capital Crescent Trail from new paths that connect directly to the property.
- >> **Trail widening and improved crosswalks.** The project resulted in a widening of the Capital Crescent Trail from ten feet (3 m) to 14 feet (4.2 m) along the length of the property as well as widening of local sidewalks and narrowing of crosswalks to improve pedestrian conditions.
- >> **Bicycle drop-off.** This “park and ride” system allows people using the on-site public garage to drive their cars to the Flats

The Flats at Bethesda Avenue gives retail tenants frontage directly on the Capital Crescent Trail. (Jane G. Mahaffie)



The Flats at Bethesda Avenue project included improvements to the Capital Crescent Trail. (Ed McMahon)

at Bethesda Avenue, drop off a bicycle, park their car in the underground garage, and then pick up their bicycle right outside the garage elevator so they can complete their trip on the trail. Garage elevators can also accommodate bicycles.

Development Lessons

While the Flats at Bethesda Avenue is a trail-oriented development project, it originated in Montgomery County, Maryland’s desire to increase the supply of public car parking spaces in Bethesda while also encouraging mixed-use development.

The county’s goals were achieved, since the project includes a new underground public parking facility that increased the supply of parking threefold, but the development also led to enhancements to the Capital Crescent Trail and nearby public space.

The combination of bike-friendly investments at the Flats at Bethesda Avenue and the increase in public car parking spaces shows how a public/private partnership can meet multiple development goals.

The widening of the Capital Crescent Trail and associated improvements to local park and active transportation space underscore the value that a trail can create in enlivening a local community and serving as a transportation corridor while also supporting residential and retail development projects.

Gotham West

New York, New York

GOTHAM WEST is a mixed-use development that opened in 2013 on the west side of midtown Manhattan. Situated near the Hudson River Greenway, Gotham West lets residents and visitors enjoy amenities that allow them to take advantage of active transportation options to reach area destinations.

QUICK FACTS

Location
550 W. 45th Street,
New York, New York

Status
Opened in August 2013

Type of Project
Mixed-use

Site Size
4 acres (1.6 ha)

Building Size
1,240 residential units; 15,000
square feet (1,400 sq m) of retail;
1.15 million total square feet
(107,000 sq m)

Rental Rates
Market-rate monthly rents from
\$2,800 to \$9,000+, affordable and
middle-income units also available

Project Cost
\$520 million

Developer
Gotham Organization

Architect
Schuman, Lichtenstein, Claman,
& Efron

Lender
Wells Fargo

Equity Partner
Undisclosed

Bike Amenities
Bike storage, bike valet, bike shop,
resident bike porter service

Nearby Bicycle Infrastructure
One block from the Hudson River
Greenway

Health Features
Fitness center, spinning and
yoga studio



Gotham West provides residents and visitors with bike-friendly amenities and landscaped public areas. *(Brian Park)*

Context for Development

Gotham West is a luxury mixed-use project in New York City's Hell's Kitchen neighborhood. The developer, Gotham Organization, has positioned Gotham West to cater to users of the 11-mile (18 km) Hudson River Greenway, which is just over a block away.

In addition to 1,240 residential units, Gotham West includes a retail space known as Gotham West Market that features a food hall, as well as a bike shop, with sales and on-site repairs, that provides services for residents and visitors.

Gotham West's location and bike-friendly features allowed developers to capitalize on the recent increase in bike commuting in New York City, which more than doubled between 2009 and 2013.

Christopher Jaskiewicz, chief operating officer for Gotham Organization, notes the value of the project's location, stating, "Gotham West is geared toward a healthy lifestyle, and we consider easy access to the Hudson River Greenway and its connections to additional trails and bike lanes to be a great differentiating amenity for our 3,000 residents."

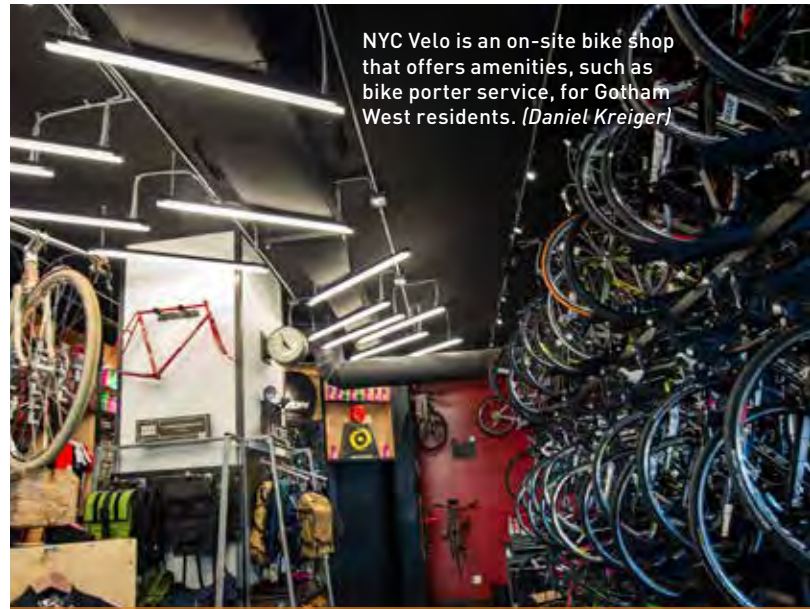
Active Transportation-Friendly Features

Gotham Organization leveraged Gotham West's location near the Hudson River Greenway by including features that support bike riding for residents and visitors alike. Features include the following:

- >> **On-site bike shop.** Gotham courted established New York City bike shop NYC Velo to open a branch store as part of the development, giving residents a place to have bikes repaired on site. NYC Velo also sells a range of bicycles, parts, and gear.
- >> **Resident bike porter storage service.** This free service employs NYC Velo staff to store residents' bicycles on site. The storage space can accommodate up to 610 bikes.
- >> **Bike rentals.** The NYC Velo bike shop offers daily bike rentals for residents and visitors.
- >> **Bike parking for guests.** NYC Velo offers same-day bike storage for visitors to Gotham West Market, encouraging bike riding to the retail portion of the development.

Development Lessons

Gotham West's location was not traditionally known as a retail destination, but the inclusion of the NYC Velo bike shop at Gotham West Market was central to project objectives. In exchange for offering NYC Velo's cycling expertise and complimentary bike concierge services to residents and Gotham West Market patrons as an encouragement to visit, Gotham Organization was able to offer NYC Velo a reduced monthly rental rate.



NYC Velo is an on-site bike shop that offers amenities, such as bike porter service, for Gotham West residents. (Daniel Kreiger)

"The large number of nearby trail users is a great source of customers for our retail tenants."

>> Christopher Jaskiewicz, CEO, Gotham Organization

The arrangement with NYC Velo, which includes same-day bike storage for visitors to the bike shop and food hall, serves to attract foot traffic to Gotham West Market from the Hudson River Greenway.

Jaskiewicz explains Gotham Organization's motivation for including the NYC Velo store and Gotham West Market as part of the development, noting, "Our location near the Greenway makes Gotham West Market the perfect pit stop for bikers, who love the bike concierge and specialists at NYC Velo."

He adds, "The large number of nearby trail users is a great source of customers for our retail tenants."

Gotham West's bicycle-oriented amenities and access to the Hudson River Greenway have contributed to the establishment of mixed-use development that supports the continuing growth in bicycle use in New York City. The Gotham West Market food hall attracts visitors to the development who can easily access its unique eateries by bicycle.

The presence of NYC Velo and its bike-oriented services for residents and market patrons illustrates how developers can work with a local business to create an innovative arrangement that supports development objectives in a context-sensitive way.

Hassalo on Eighth

Portland, Oregon

HASSALO ON EIGHTH is a mixed-use project located in Portland that includes the largest bicycle parking facility anywhere in North America. Taking advantage of its location along streets with protected bike lanes, project developers have included features that promote active transportation and sustainability, and enhance the appeal of the project.

QUICK FACTS

Location

1088 NE Seventh Avenue,
Portland, Oregon

Status

Final phase opened in October 2015

Type of Project

Mixed-use

Site Size

3 acres (1.2 ha)

Building Size

657 residential units; 592,600 gross square feet (55,100 sq m) of housing, 58,100 gross square feet (5,400 sq m) of retail, and 271,600 gross square feet (25,200 sq m) of office space

Rental Rates

Average residential rate of \$2.33 per square foot (\$25 per sq m); apartments from \$1,010 to \$3,500+ per month

Project Cost

\$192 million

Developer

American Assets Trust

Architect

GBD Architects

Lender

N/A

Equity Partner

N/A

Bike Amenities

Bike parking with valet, bike washing station, bike workroom, on-site repair/parts available, shower and locker room

Nearby Bicycle Infrastructure

Adjacent to protected bike lanes

Health Features

Fitness center, yoga room, boot camp classes

"We feel many of our residents will choose to live here because they do not own a car." >> Wade Lange, vice president, regional manager, Portland, American Assets Trust

A courtyard at Hassalo on Eighth provides residents and commuters with a place to relax. (GBD Architects Incorporated)



Hassalo on Eighth was built along a corner of NE Seventh Avenue and NE Multnomah Street, adjacent to protected bike lanes. (GBD Architects Incorporated)



Hassalo on Eighth is located in Portland's Lloyd District, just east of downtown. (GBD Architects Incorporated)

Context for Development

Hassalo on Eighth has helped transform the landscape of Portland, Oregon's Lloyd District, an area east of downtown, which traditionally contained mostly commercial uses. A mixed-use project built on a former surface parking lot, Hassalo consists of three buildings and 657 apartment units, making it the largest residential development in Portland to date.

As part of the "Lloyd EcoDistrict," a coalition of local organizations working to create "the most sustainable living-and-working district in North America," project developer American Assets Trust created Hassalo on Eighth with the goal of attracting residents who find the proximity to Portland's 319 miles (513 km) of bikeways attractive.

Wade Lange, vice president, regional manager, Portland, for American Assets Trust, explains, "We feel many of our residents will choose to live here because they do not want to own a car and there is no location in the city that provides better proximity to transportation options than Hassalo."

Local residents and workers have access to bike lanes and trails, as well as rail and bus transit services that accommodate bicycles. This active transportation infrastructure allows for convenient access to downtown Portland, just across the Willamette River from Hassalo.

Active Transportation-Friendly Features

American Assets Trust included innovative active transportation-friendly amenities at Hassalo on Eighth to appeal to Portland residents who ride bicycles. Features currently included or being added consist of the following:

>> **North America's largest bike parking facility.** Hassalo on Eighth has space for 1,200 bicycles, nearly 20 percent more than the 1.5 spaces per unit required by Portland law. Bike parking is spread between a "bike hub" with 820 spaces and secure storage space in the three residential buildings.

- >> **On-site bike valet service.** Once operational, the bike hub facility will give tenants and local workers access to free bicycle valet service, which will also include optional bike tune-ups.
- >> **Bike workroom.** Dedicated space allows residents to repair bicycles in a shared facility.
- >> **Bike washing area.** Residents can wash bicycles on site in an area with a movable hose.
- >> **Vending machines for replacement bike parts.** Residents can purchase parts for simple repairs from on-site machines.
- >> **Shower and locker room facilities.** Local bicyclists will be able to change and shower after commuting.

Development Lessons

The U.S. Census shows that Portland's bicycle commuting rate in 2014 was 7.2 percent, more than 2.5 times the 2004 rate and the highest in the nation for major U.S. cities.

Hassalo on Eighth is positioned to support Portland's growing bicycle culture due to its location along on-street bike routes and its inclusion of bike-friendly features. Many of these amenities, including the bicycle valet service, are open not just to residents, but also to area employees.

Three months after the final phase of Hassalo on Eighth opened, American Assets Trust's Wade Lange notes that the project is seeing financial success, since the residential lease-up process was ahead of schedule.

Moving forward, project developers will take note of any additional financial benefits of Hassalo's bicycle-friendly features and will incorporate these data into future development decisions, including plans to redevelop 16 blocks in the Lloyd District.

As more local residents take up bicycling as a transportation mode, developers such as American Assets Trust are highlighting the opportunity that biking presents by incorporating bike-friendly features into their properties and aggressively promoting them to the public. Such actions show how the real estate community in Portland can both support and derive value from the growing popularity of active transportation.

MoZaic

Minneapolis, Minnesota

MOZAIC is a mixed-use office building in Minneapolis adjacent to the bustling Midtown Greenway. To leverage access to the Greenway, MoZaic's developer worked to include a pedestrian and bicyclist bridge and ramp from the project site to the path, giving walkers and cyclists direct access to the building.

"The Greenway is a critical amenity for MoZaic. We find our tenants love the ease and accessibility it provides." >> Stuart Ackberg, CEO, Ackberg Group

QUICK FACTS

Location
1350 Lagoon Avenue,
Minneapolis, Minnesota

Status
Opened in 2012; new phase
expected to open in 2017

Type of Project
Mixed-use; office, retail, and
automobile parking

Site Size
1.4 acres (0.6 ha)

Building Size
77,000 square feet (7,200 sq m);
200,000 square feet (18,600 sq m)
in new phase

Rental Rates
Average office lease rates of \$26
per square foot (\$280 per sq m)

Project Cost
\$45 million; \$65 million for
new phase

Developer
Ackberg Group

Architects
BKV Group, Perkins + Will Architects

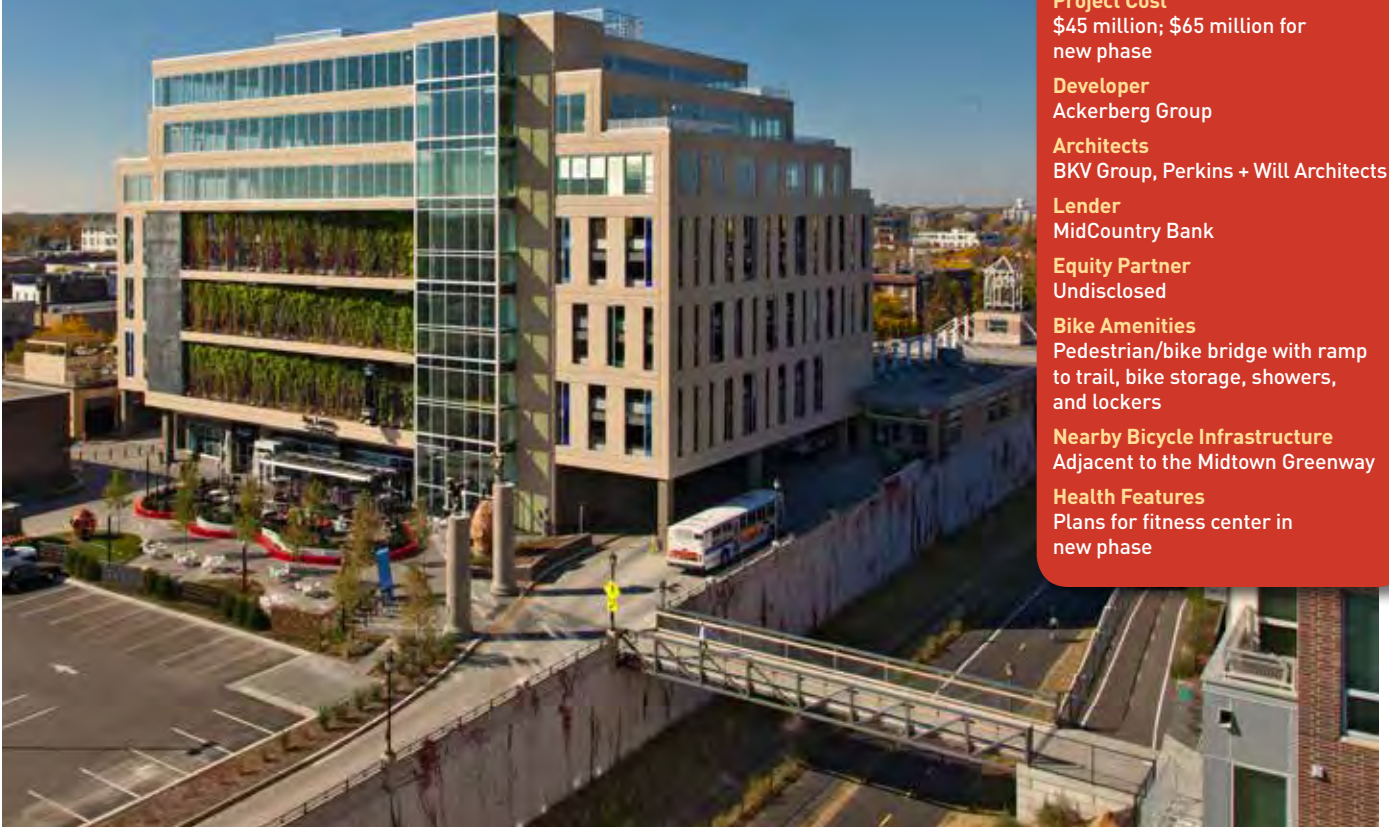
Lender
MidCountry Bank

Equity Partner
Undisclosed

Bike Amenities
Pedestrian/bike bridge with ramp
to trail, bike storage, showers,
and lockers

Nearby Bicycle Infrastructure
Adjacent to the Midtown Greenway

Health Features
Plans for fitness center in
new phase



Located directly on Minneapolis's Midtown Greenway, MoZaic offers tenants and visitors an array of transportation options. (Saari Photography)

Context for Development

MoZaic is a 77,000-square-foot (7,200 sq m) office, retail, and structured automobile parking development that opened in 2012 in the Uptown area of Minneapolis. A new 200,000-square-foot (18,600 sq m) mixed-use building, called MoZaic East, is in development and is expected to open in 2017 next to the existing building.

Developed by Ackerberg Group, MoZaic provides direct access to the Midtown Greenway, a 5.5-mile (8.8 km) commuter trail in Minneapolis that sees up to 5,460 users per day.

The Midtown Greenway forms connections to the Uptown Transit Center, a bus transportation facility, as well as to other regional trails that link the neighborhood to downtown Minneapolis and surrounding areas.

The connection to the Midtown Greenway has contributed to the success of MoZaic, as Ackerberg Group's chief executive officer, Stuart Ackerberg, explains. "Whether it's walking, biking, blading, running, or boarding, the Greenway is used all the time. The Greenway is a critical amenity for MoZaic. We find our tenants love the ease and accessibility it provides."

Active Transportation-Friendly Features

MoZaic is an example of trail-oriented development, since it faces the Midtown Greenway and provides a dedicated connection to the trail. MoZaic's active transportation-friendly features in the existing and future phases of development include the following:

- >> **Pedestrian and bicyclist bridge and ramp.** This bridge links MoZaic's tenants and visitors directly to the Midtown Greenway.
- >> **Bicycle storage.** Plans for MoZaic East include 50 to 60 bike parking stalls for employees.
- >> **Locker room with showers.** Employees who work at MoZaic East's office spaces will be able to use showers and changing rooms after riding to work.

Development Lessons

When MoZaic opened in 2012, the Uptown neighborhood lacked a significant supply of Class A office space, but Ackerberg Group believed that the area's growing stock of housing for young professionals and role as a transportation hub would support office development.

To provide direct access to MoZaic for the area's many active transportation enthusiasts, Ackerberg Group worked with local government officials and representatives from a nearby development to advance the construction of a bicycle and pedestrian ramp and bridge between MoZaic and the Midtown Greenway.

The bridge and ramp cost \$370,000 and was constructed with \$265,000 in funding from the Hennepin County Transit-Oriented Development program, which supports projects that encourage



Patrons of restaurants located on MoZaic's ground floor have convenient active transportation access to the building. (Saari Photography)

walking and bicycling. The remaining \$105,000 in funding was provided by Ackerberg Group and Greco, the developer of an adjacent property.

The improved connection to MoZaic aided in its marketability. Stuart Ackerberg notes, "The ease of access to our project—including from the Midtown Greenway—definitely allowed us to charge premium rental rates. Whether employees get to the building by car, bus, [or] bike or on foot, MoZaic offers tremendously diverse transit options."

After opening, MoZaic saw immediate success and maintained a 100 percent occupancy rate as of 2016. Tenants include residential and commercial real estate companies, marketing and advertising agencies, and financial services firms.

The public/private cost-sharing agreement that resulted in the creation of the Midtown Greenway bicycle and pedestrian ramp and bridge shows how public sector transportation priorities and private development objectives can be aligned.

By investing in access to the Midtown Greenway, Ackerberg Group was able to provide a public amenity for Uptown residents and businesses that supported regional active transportation goals, while at the same time creating a facility that added value for MoZaic tenants and increased the project's overall marketability.

Ponce City Market

Atlanta, Georgia

QUICK FACTS

Location

675 Ponce de Leon Avenue NE,
Atlanta, Georgia

Status

Opened in phases from 2013 to 2015

Type of Project

Mixed-use

Site Size

1.4 acres (0.6 ha)

Building Size

2.1 million square feet (195,000 sq m), 259 apartments, 330,000 square feet (30,700 sq m) of retail, 550,000 square feet (51,100 sq m) office space

Rental Rates

\$1,595 to \$3,500+ per month for apartments; affordable housing units also available

Project Cost

\$250 million

Developer

Jamestown Companies

Architect

Nimmons, Carr, and Wright,
Architects

Lenders

PNC Bank, SunTrust Bank,
JP Morgan

Equity Partner

Undisclosed

Bike Amenities

Bike valet, bike storage, extra-wide hallways and elevators, on-site trail access, showers

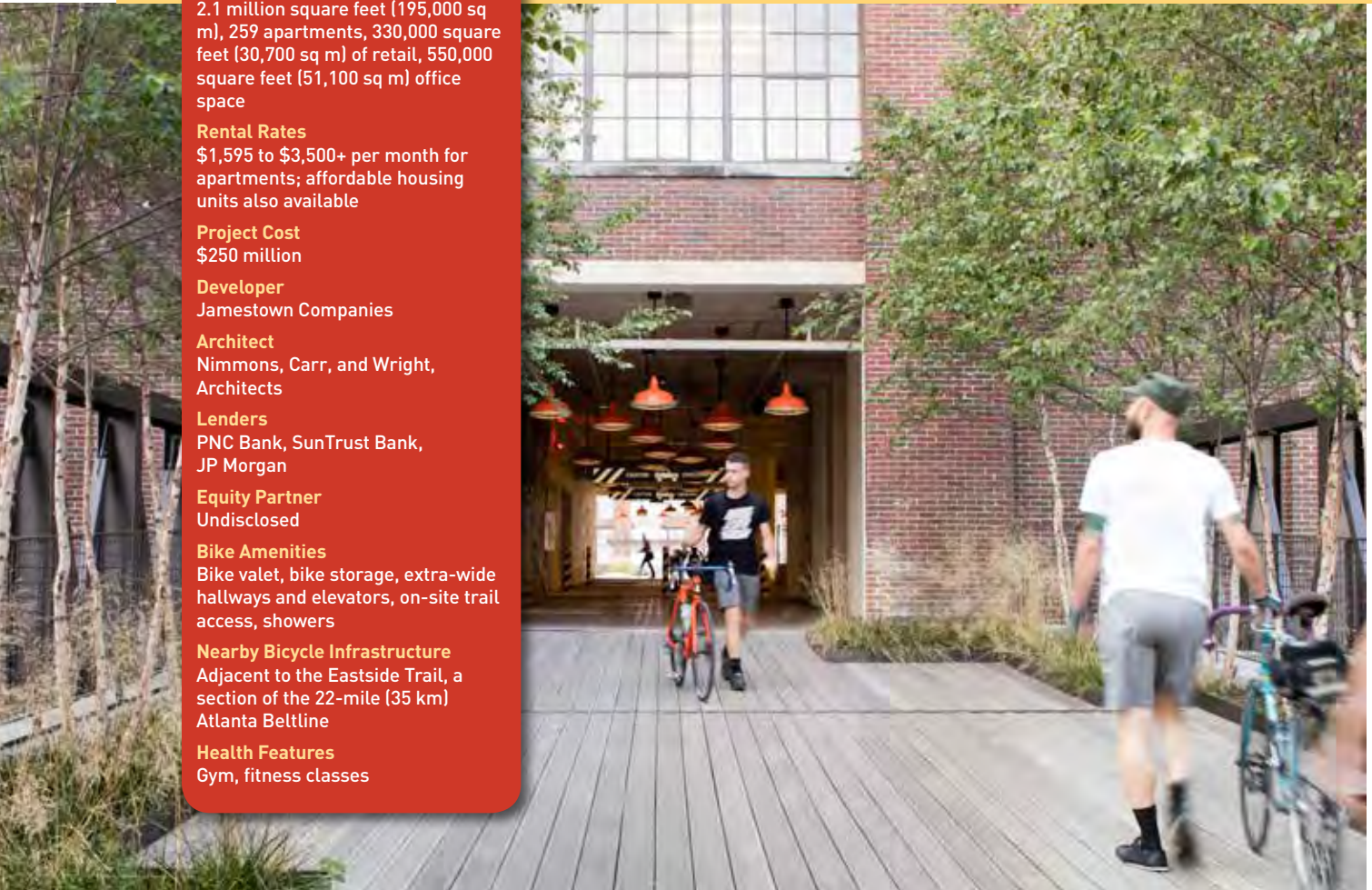
Nearby Bicycle Infrastructure

Adjacent to the Eastside Trail, a section of the 22-mile (35 km) Atlanta Beltline

Health Features

Gym, fitness classes

PONCE CITY MARKET is a 2.1 million-square-foot (195,000 sq m) mixed-use redevelopment project that opened in phases between 2013 and 2015 in Atlanta. The project was built in a historic warehouse adjacent to the Atlanta BeltLine trail and incorporates numerous features to promote active transportation access.



“The Atlanta BeltLine is a driving force in the urbanization of Atlanta, transforming our city into a walkable, connected network of neighborhoods.” >> Matt Bronfman, CEO, Jamestown

Context for Development

Along the award-winning Atlanta BeltLine, a burgeoning 22-mile (35 km) network of public parks, multiuse trails, and transit facilities, new developments geared toward car-free lifestyles are springing up. Ponce City Market is one example of this trend and is the largest redevelopment project in Atlanta since the 2008 recession.

The \$250 million adaptive use project is a live/work/play development along the BeltLine's Eastside Trail. Ponce City Market transformed a former Sears building—the largest brick building in the U.S. Southeast—into a vibrant hub of activity in Atlanta's Fourth Ward neighborhood.

The mixed-use project includes 259 apartments, 550,000 square feet (51,100 sq m) of office space, a "Central Food Hall," local and national retailers, and a neighborhood school.

Jamestown Companies, the project's developer, seized the opportunity to incorporate bike-friendly features into the Ponce City Market project. Jamestown chief executive officer Matt Bronfman notes, "The Atlanta BeltLine is a driving force in the urbanization of Atlanta, transforming our city into a walkable, connected network of neighborhoods. Ponce City Market's direct connection to the BeltLine is one of the best amenities we have to offer our community. It is not only an easy way to access the market's amenities, it also provides our tenants with a great green space that connects them directly with growing neighborhoods like Virginia Highland."

Bronfman adds, "We look forward to the continued development of the BeltLine and are committed to supporting the BeltLine's efforts."

Active Transportation–Friendly Features

Active transportation–friendly features form a central component of the Ponce City Market project, and include the following:

- >> **Bicycle storage.** Five hundred bicycle parking spaces are provided for residents and visitors in a secure facility.
- >> **Bicycle valet service.** Visitors to the development can ride up to the building and leave their bikes with the entrance valet free of charge.
- >> **Bike workroom.** Residents have access to a space where they can repair bicycles in a shared facility.
- >> **Extra-wide hallways to accommodate bikes.** Residents and visitors can maneuver bicycles around the property because of the width of hallways.
- >> **Elevators that can accommodate bikes.** Elevators are large enough to accommodate bicycles in standard positions.
- >> **Showers for bicycle commuters.** Office workers and residents have access to a shower facility to use after commuting by bike.

Facing page: Ponce City Market offers direct BeltLine access from the building. (Sarah Dorio)



Ponce City Market includes a number of features to accommodate bicycling for residents, office tenants, and shoppers. (Sarah Dorio)

>> **Direct BeltLine access from the building and public plaza.**

A walkway connection among the trail, the new public plaza, and the development provides active transportation access to pedestrians and bicyclists.

- >> **Funding for the BeltLine from car parking fees.** Jamestown worked with parking provider Parkmobile to create a payment system where the first \$1 of each car parking session is donated to the Atlanta BeltLine project.

Development Lessons

As of 2015, over \$400 million had been invested into the Atlanta BeltLine project from public and private sources, leading to more than \$2.4 billion in private development along the BeltLine corridor. Jamestown's \$250 million investment in Ponce City Market is a prime example of the BeltLine's capacity to spur development.

By 2016, over 90 percent of the office space at Ponce City Market had been leased, and the retail portion of the project had attracted a mix of restaurants and shops, most of which were new to the area. The Central Food Hall features an international array of eateries run by prominent chefs and local food purveyors. The apartment units, known as the "Flats at Ponce City Market," include modern designs and features from the original structure.

Ponce City Market's combination of bike-friendly residential, office, and retail space has aided in the continuing revitalization of the surrounding neighborhood. As a result, Jamestown is investing in redeveloping an additional local property adjacent to the BeltLine, which will feature a 60,000-square-foot (5,600 sq m) grocery store and 360,000 square feet (33,400 sq m) of office space with direct trail access.

The investments that Jamestown has made in the area show the catalytic potential of active transportation infrastructure and demonstrate how developers can leverage investments in trail projects to aid in the creation of modern, high-end mixed-use projects.

Silver Moon Lodge

Albuquerque, New Mexico

SILVER MOON LODGE is a mixed-use workforce housing development located at the periphery of Albuquerque's central business district, along historic Route 66. It was designed to take advantage of nearby urban amenities as well as proximity to the city's growing bikeway network.

"There is a strong market in downtown Albuquerque for apartments that cater to pedestrians and bicyclists."

>> Jessie Lucero, property manager, Silver Moon Lodge

QUICK FACTS

Location
901 Park Avenue SW,
Albuquerque, New Mexico

Status
Opened November 2014

Type of Project
Mixed-use

Site Size
1.4 acres (0.6 ha)

Building Size
154 units, 106,300 square feet
(9,900 sq m) of residential space,
4,500 square feet (400 sq m) of
commercial space

Rental Rates
\$661–\$708 monthly for
apartment units

Project Cost
\$13.5 million

Developer
DBG Properties, a subsidiary of
GSL Properties Inc.

Architect
Dekker Perich Sabatini

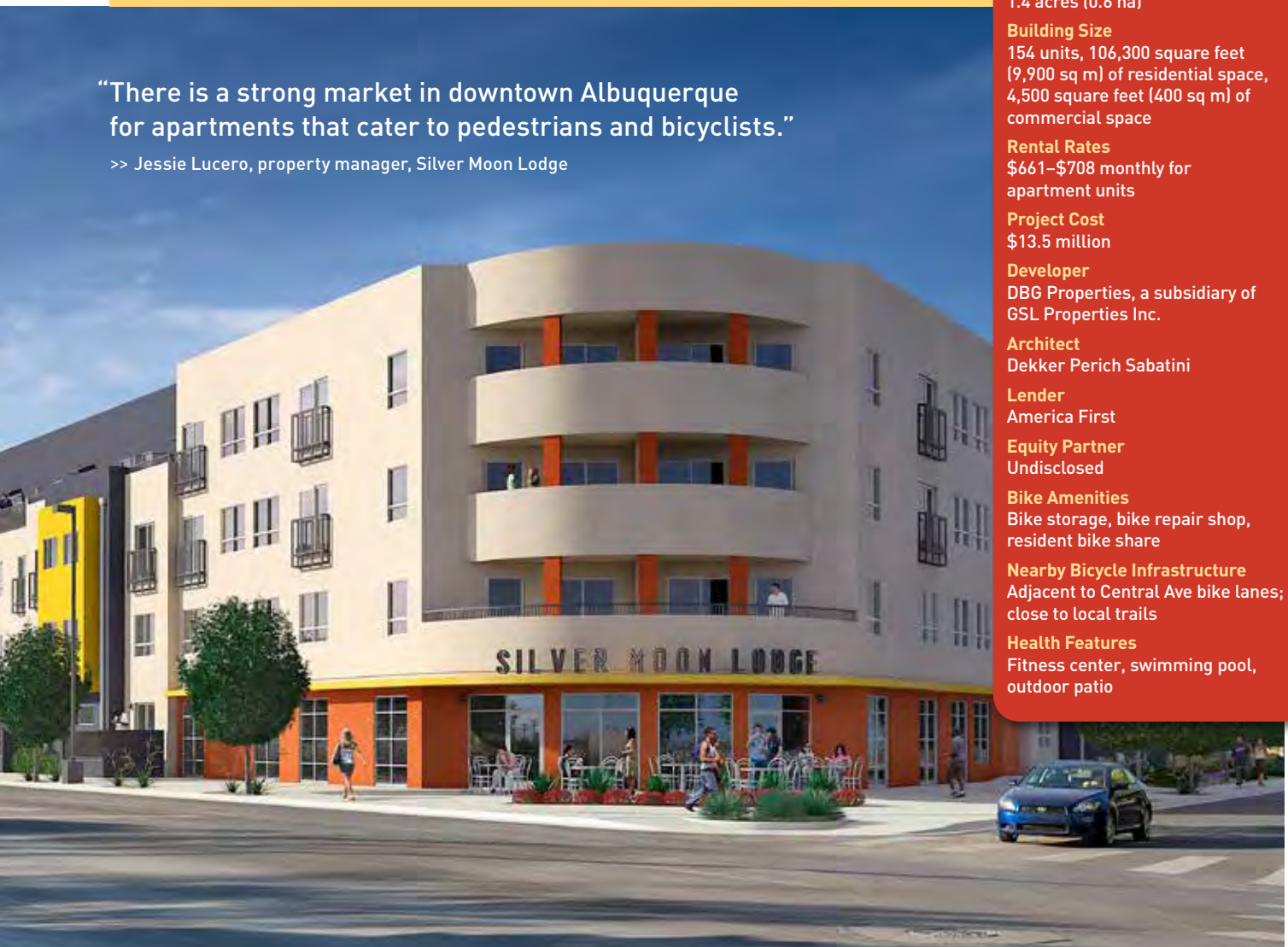
Lender
America First

Equity Partner
Undisclosed

Bike Amenities
Bike storage, bike repair shop,
resident bike share

Nearby Bicycle Infrastructure
Adjacent to Central Ave bike lanes;
close to local trails

Health Features
Fitness center, swimming pool,
outdoor patio



Located in central Albuquerque, Silver Moon Lodge offers convenient access to downtown amenities. (Dekker/Perich/Sabatini)



Silver Moon Lodge features a central bike storage facility on the ground floor of the building. (Dekker/Perich/Sabatini)



Residents at Silver Moon Lodge who do not own cars are able to get around on foot or by bicycle. (Dekker/Perich/Sabatini)

Context for Development

Silver Moon Lodge, a mixed-use development with 154 studio and one-bedroom units of workforce housing, was built for renters seeking a car-optional lifestyle in central Albuquerque.

The project is located adjacent to new bike lanes and designated cycling routes that provide easy access to the city's 400 miles (644 km) of trails, including the 16-mile (26 km) Paseo del Bosque Trail, which connects downtown Albuquerque to area destinations, including the Rio Grande Conservation Center.

Jessie Lucero, Silver Moon Lodge's property manager, explains how the project's location adds to its value, saying, "Everything our tenants need is within walking or bicycling distance. Our downtown location near trails and along the Central Avenue bike lanes allows residents to get to work, the grocery store, or to go out to eat on foot or by bicycle."

Silver Moon Lodge was built using New Mexico Mortgage Finance Authority tax credits. The annual incomes of eligible renters are capped at \$26,460 per year for one person or \$30,240 for units housing two people.

Residents of Silver Moon Lodge who cannot afford to own a car, or who choose not to do so, are able to get around on foot or by bicycle. The project is also located near a bus stop and on-site car-share station, further enhancing the convenience of the development for car-free households.

Active Transportation-Friendly Features

Silver Moon Lodge has several bike-friendly features for residents and visitors, including the following:

- >> **A bike storage room.** The development can accommodate 50 bikes in a central facility on the ground floor of the building.
- >> **Bike repair room.** Residents have access to a dedicated space with tools, air pumps, and a work stand that allows them to make repairs to bikes without having to leave the property.

- >> **Resident bike-share program.** Silver Moon Lodge provides bicycles that residents can borrow on a short-term basis to run local errands.

Development Lessons

Silver Moon Lodge's bike accommodations and the nearby bicycle infrastructure support the growing local popularity of active transportation, evidenced by Albuquerque's 92 percent increase in bicycle commuting between 2012 and 2014, according to the U.S. Census.

Further supporting the use of bicycles as everyday transportation is the fact that Silver Moon Lodge's developer, GSL Properties, included just 23 car parking spots on site.

By law, GSL Properties could have proposed more than 150 spaces for cars. However, by providing fewer, the developer was able to reduce the site costs associated with building parking and instead focused on providing features that would appeal to those who want the option not to own a car.

Lucero explains that the relatively low rate of parking provision coupled with the project's bike-friendly features has aided in development objectives, saying, "There is only one car parking space for every six units, but parking has not been an issue because so many of our residents have chosen to rely on bikes to get around."

Lucero adds, "Over 95 percent of our units are occupied. There is a strong market in downtown Albuquerque for apartments that cater to pedestrians and bicyclists."

Silver Moon Lodge meets a need for high-quality affordable housing in downtown Albuquerque, as demonstrated by the fact that the building is consistently nearly fully leased.

The development's bike-friendly design caters to those who do not wish to use an automobile as their primary means of transportation and supports the shift toward bicycle commuting in the local area.

250 City Road

London, United Kingdom

250 CITY ROAD is a high-end mixed-use project in London located along designated cycling routes. The project will provide accommodations intended for the area's growing bicycle ownership and use.

QUICK FACTS

Location
250 City Road,
London, United Kingdom

Status
Under construction; opening in
phases from 2018 to 2023

Type of Project
Mixed-use

Site Size
5.5 acres (2.2 ha)

Building Size
1.4 million square feet (130,000
sq m), 930 residential units,
190-room hotel, 75,000 square feet
(7,000 sq m) of office space,
40,000 square feet (3,700 sq m)
of retail, 23,000-square-foot
(2,100 sq m) data center

Residential Unit Listing Prices
From around £700,000
(US\$1,005,000) to over £3,600,000
(US\$5,168,000)

Project Cost
Undisclosed

Developer
Berkeley Group Holdings

Architect
Foster + Partners

Lender
Undisclosed

Equity Partner
Undisclosed

Bike Amenities
Bike storage and elevators, bicycle
workrooms, investments in bike
share and road safety

Nearby Bicycle Infrastructure
Bike routes on Macclesfield Road,
Lever Street, Central Street, Mora
Street; public bike share

Health Features
Fitness center, swimming pool,
outdoor patio



“The demand for secure cycle parking will only increase in the coming years, so ‘overprovision’ seems sensible and will futureproof the development.”

>> Christopher Abel, development director, Berkeley Group

Context for Development

A large mixed-use project with 930 high-end, luxury residential units and other uses, 250 City Road is under construction in the London Borough of Islington.

Berkeley Group, the project developer, worked with local government officials and architecture firm Foster + Partners to create a suite of bicycle-oriented amenities that will support two-wheeled commutes. Agreements between Berkeley and the Borough of Islington have led to increased investments in the area's cycling infrastructure.

Christopher Abel, Berkeley's development director, explains the motivations behind accommodating bicycle transportation, saying, "We see the additional measures . . . as not only assisting cyclists who will live and work [at 250 City Road], but as raising the standard for future development across London."

The 250 City Road project is being constructed adjacent to an existing public "Santander Cycles" bike-share station and is located near designated on-road cycle routes. These routes will help connect the project to the 18-mile (29 km) "East-West Cycle Superhighway" being built as part of a £160 million (US\$240 million) system of London segregated bike lanes.

Active Transportation-Friendly Features

A number of features will be included at 250 City Road that facilitate walking, bike ownership, and commuting, including the following:

- >> **Bike storage.** There will be 1,486 bike parking spaces located in a secure basement facility accessible by residents and office workers. Additional bike parking will be provided in an on-site park for use by the public.
- >> **Bicycle elevators.** Three dedicated bicycle elevators will connect the underground bicycle storage space with the street level.
- >> **Bike workrooms.** Space will be provided for residents to clean and maintain bikes on site.
- >> **Public bike-share station.** There is an adjacent existing public bike-share station, but project developers are contributing £185,000 (US\$264,559) to Transport for London, the local governmental body responsible for transportation throughout the region, for an additional 24-bike Santander Cycles station on site.
- >> **Investments in on-road safety.** Berkeley is making a £20,000 (US\$28,721) financial contribution to Transport for London for off-site pedestrian and bicyclist-focused safety improvements to nearby intersections.

Facing page: The 250 City Road project will feature on-site bike-share stations and promote active transportation access. (Berkeley Homes, North East London)



Residents and visitors to 250 City Road will be able to relax in central courtyards. (Berkeley Homes, North East London)

Development Lessons

The 250 City Road project's bike-friendly features and the improvements to London's cycling routes support the high rate of bike commuting in the area. The 2011 U.K. Census found that more people ride a bike to work in the London Borough of Islington—where 250 City Road is located—than drive (5.9 percent of locals cycle to work versus 5.5 percent who rely on automobiles).

To accommodate local cyclists, 250 City Road will have dedicated storage space for 1,486 bicycles—a ratio of almost 1.6 spaces per residential unit. In contrast, the project has only 200 car parking spaces.

The number of bike parking spaces exceeds the 1,223 required by London's bike-friendly zoning laws, while the number of car parking spaces is significantly less than the maximum number of spaces allowed—roughly one per unit.

Abel explains that Berkeley decided to provide ample bike parking because ". . . the demand for secure cycle parking will only increase in the coming years, so 'overprovision' seems sensible and will futureproof the development."

The project's focus on improving the safety and convenience of bicycling, and the partnership with local government to invest in improvements, show how development objectives can go hand-in-hand with municipal efforts to enhance active transportation options.

The project is emblematic of the shift toward bicycling as an everyday mode of transportation and demonstrates that bike-friendly design features can be a component of a package of luxury amenities for mixed-use developments.

Westwood Residences

Singapore

QUICK FACTS

Location

43 Westwood Terrace,
Singapore

Status

Expected opening in August 2018

Type of Project

Multifamily

Site Size

4.3 acres (1.7 ha)

Building Size

480 units

Sales Prices

Average \$850 per square foot
(\$9,150 per sq m)

Project Cost

\$198.9 million

Developers

Koh Brothers Group Limited and
Heeton Holdings Limited

Architect

ADDP Architects LLP

Equity Partner

Heeton Holdings

Bike Amenities

Bike storage, bike repair room,
velodrome, bike washing area,
on-site trail, BMX park

Nearby Bicycle Infrastructure

Adjacent to growing network of
“park connector” trails

Health Features

Indoor and outdoor gyms,
swimming pool, aqua gym,
tennis/basketball court

WESTWOOD RESIDENCES is a bicycle-themed multifamily housing development in Singapore that is slated to open in 2018. Bike-friendly features are being included to help differentiate the project from other developments on the market.



An on-site velodrome will allow tenants at Westwood Residences to enjoy bike racing on an outdoor oval-shaped track. (Artist's impression, KBD Westwood Pte. Ltd.)

Context for Development

Westwood Residences is a 480-unit executive condominium (EC) project in the Jurong West area of Singapore. ECs are a type of housing in Singapore that are built and sold by private developers, but feature price points lower than market rates due to government subsidies. These hybrid public/private housing units have strict income levels for buyers and cannot be sold or rented for five years after owners take possession.

As of 2015, Singapore was experiencing a slowdown in its EC market. In order to set Westwood Residences apart from other projects and leverage new bicycle infrastructure being built by the city, the project's developers, Koh Brothers Group Limited and Heeton Holdings Limited, decided to focus on providing bike-friendly amenities for prospective residents. Westwood Residences is spending upwards of SGD\$1.5 million (US\$1,050,000) on the project's active transportation-themed offerings.

Danny Low, Heeton Holdings' chief operating officer and executive director, explains the rationale behind Westwood Residences' bike theme, stating, "In today's challenging operating environment, it is vital to inject unique attributes to differentiate our developments to increasingly discerning and demanding buyers in the EC market."

Low adds, "The introduction of a bike-themed development is well timed as the government intends to build more parks in the vicinity. On top of this, we will also be well poised to capitalize on the trend of more people seeking an active and healthy lifestyle."

Active Transportation-Friendly Features

Westwood Residences will include a number of features to accommodate bicycling for recreation and transportation purposes, including the following:

- >> **Bicycle storage.** A facility with space to park 500 bikes will be included in the development and will feature closed-circuit television and biometric scanning to ensure that bicycles are secure.
- >> **Bike workroom.** A maintenance facility for residents will include tools, tire pumps, air compressors, bike racks, and repair stands.
- >> **Bike washing area.** The bicycle maintenance room will feature a dedicated area for residents to clean bikes.
- >> **Bicycle velodrome.** Residents will have access to an outdoor oval-shaped bike racing track.
- >> **On-site bicycle trail.** A bicycle trail will connect cyclists to parks and the burgeoning local network of trails.
- >> **BMX bike park.** The development will feature a track for youth to practice BMX skills and stunts.

"The introduction of a bike-themed development is well timed as the government intends to build more parks in the vicinity." >> Danny Low, CEO and executive director, Heeton Holdings



Secure storage for 500 bicycles will be provided at Westwood Residences. (Artist's impression, KBD Westwood Pte. Ltd.)

Development Lessons

Singapore is building bicycle infrastructure to reduce automobile traffic and increase active transportation opportunities for local residents. In 2011, only 1 percent of all trips in Singapore were by bicycle, but the government aims to increase this figure by creating safer and more convenient bike routes.

As of 2015, Singapore had 143 miles (230 km) of bike paths, but the government is planning to increase that figure to 434 miles (700 km) by 2030.

"Park connector" trails near Westwood Residences link commercial and residential areas, and also form connections with multiple rail transit stations. The bike trails at Westwood Residences will provide access to the Jurong Lake District, the largest planned commercial and recreational hub outside of Singapore's central business district.

Due to its bike-friendly design and location near a growing network of trails, Westwood Residences is a unique product for the Singapore EC market. Presales of units at Westwood Residences began in May 2015, with 120 units sold on the first day. According to Channel News Asia, this is a faster rate of sale than that seen in other such developments around the same time.

The success of the project relative to that of other ECs will provide lessons on the market viability of including bike-friendly amenities in local development projects, as Singapore's active transportation infrastructure network continues to expand.

Catalytic Bicycle and Pedestrian Infrastructure Projects

In what way do trails, bike lanes, and bicycle-sharing systems shape regional economies? What is the relationship between the real estate market and investments in active transportation infrastructure? How can public sector health and environmental goals be aligned with emerging private sector development objectives?

This chapter examines catalytic active transportation infrastructure projects, such as trails, bike lane networks, and bike-sharing systems that support and, in some instances, spur real estate development opportunities. The profiles outline investments made by the public sector, or by partnerships between the public and private sectors, that support improvements to the safety and convenience of walking and bicycling.

The projects included show how active transportation infrastructure can have positive economic impacts for cities and regions, while supporting public health and environmental goals and creating opportunities for the real estate industry to develop bicyclist- and pedestrian-friendly projects.

Key Economic and Quality-of-Life Benefits of Active Transportation Infrastructure

Property Values	Public Health and Environment	Economic Development
Properties within ¼ mile (0.4 km) of the Radnor Trail, part of Philadelphia's Circuit regional trail network, were valued on average \$69,000 higher than other area properties.	Barcelona's bike-share system contributes to reducing yearly CO ₂ emissions by an estimated 9,000 metric tons (9,221 tons) and leads to the equivalent of 12 lives saved each year due to increased physical activity.	Copenhagen, Denmark, predicts that completing a network of 28 "cycle superhighways" will lead to an economic return of 19 percent for the region.
Homes in Montreal saw an average increase of CA\$8,649.80 (US\$6,123.10) in their values after the installation of local bike-share stations.	Positive public health and environmental outcomes from London's "cycle superhighway" project will lead to a net £76 million (US\$109 million) economic benefit over the next 30 years.	Minneapolis's Midtown Greenway has catalyzed more than \$750 million worth of new residential development.



[Copenhagen Cycle Superhighways]

Four of the five infrastructure projects profiled in this chapter expanded and improved trail systems or bike lane networks, while the fifth highlights recent investments in public bike-sharing programs. The case studies explore initiatives in the United States, Canada, Europe, and Asia, and range from municipal projects that were initiated due to pressure from local community groups, to multidecade wholesale transformations of regional transportation systems that include dozens of public and private sector partners.

The projects included in this chapter are indicative of a worldwide trend of civic and private sector investment in active transportation facilities, and the growing market demand for walkable and bikable places. They were identified through input from a variety of ULI sources.

Shared themes among profiled projects include the following:

- >> **Active transportation infrastructure can catalyze real estate development.** Trails, bike lanes, and bicycle-sharing systems can improve pedestrian and bicyclist access to employment centers, recreational destinations, and public transit facilities, thereby enhancing the attractiveness of developments along active transportation corridors. In some cases, former industrial districts and towns outside urban cores have benefited from active transportation infrastructure due to improved walking and cycling connectivity.
- >> **Investments in trails, bike lanes, and bicycle-sharing systems have high levels of return on investment.** Regions and cities have found that relatively small investments in active transportation can have outsized economic returns due to improved health and environmental outcomes and reduced negative externalities, such as automobile traffic congestion and poor air quality.
- >> **There is evidence of a correlation between access to active transportation facilities and increased property values.** In a number of markets, both urban and suburban, studies have found that direct access to trails, bike-sharing systems, and bike lanes can have a positive impact on property values. A number of current and recent development projects have cited this phenomenon as a rationale for investing in particular locations and/or including bike-friendly features.
- >> **A reciprocal relationship exists between the private and public sectors in terms of maximizing investments in active transportation.** Developers have benefited from the ability to build in sought-after locations that are close to publicly financed active transportation routes, but have also made direct investments in active transportation by partially financing improvements to facilities, such as trail networks or bike-sharing systems, through public/private partnerships.

The Circuit Trails

Southeastern Pennsylvania and southern New Jersey

QUICK FACTS

Project Type
Off-road trails

Location
Southeastern Pennsylvania and southern New Jersey

Usage
Up to 1 million pedestrians and bicyclists annually on the Philadelphia portion of the Schuylkill River Trail, a key Circuit route

Length
Planned 750 miles (1,200 km); 300 miles (483 km) currently complete


Year Constructed
Ongoing, formal effort to expand and connect Circuit Trails launched in 2012

Project Cost
Varies, depending on trail alignments, location, and necessary infrastructure

Funding
Private foundation—William Penn Foundation; federal, New Jersey, Pennsylvania, and local transportation funds; private companies; donations

Organizational Leads
Circuit Trails Coalition, William Penn Foundation, Delaware Valley Regional Planning Commission

Maintenance and Upkeep
Various state, county, and municipal governments, and trail development and volunteer organizations



The Schuylkill Banks Boardwalk is a 2,000-foot-long (610 m) section of the Circuit Trails network that extends roughly 50 feet (15 m) from the Schuylkill Riverbank in Center City, Philadelphia. (*Rails-to-Trails Conservancy*)

THE CIRCUIT is a growing regional trail network that connects destinations across Greater Philadelphia. Consisting of paths that link city centers, transit hubs, parks, and recreational destinations, the Circuit allows pedestrians and bicyclists to travel among urban, suburban, and rural destinations without having to use a motor vehicle.

With 300 miles (483 km) in place and ongoing progress toward the goal of reaching 750 miles (1,200 km) of trails before 2040, the Circuit is emerging as a key component of the overall transportation system in Greater Philadelphia. The real estate community has taken notice. Developers building near the Circuit have noted trail access as a key amenity for residential and commercial properties, and homeowners close to Circuit trails are experiencing increased property values.

Project Background

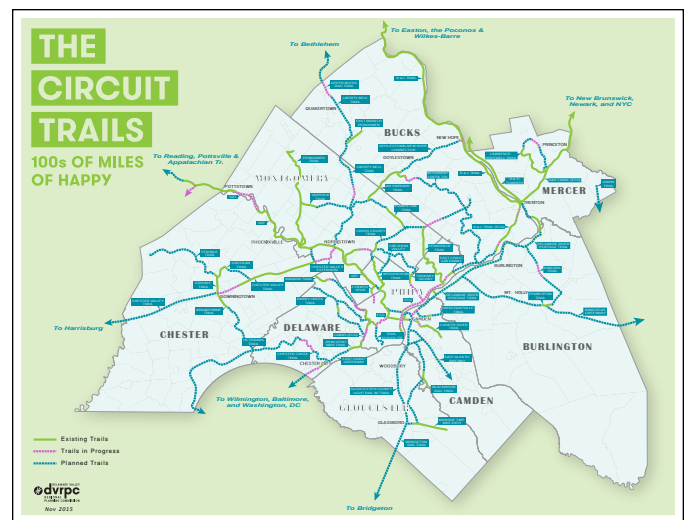
Bicycling in Philadelphia. The Circuit, Greater Philadelphia's regional trail network, connects towns and cities across the area, providing pedestrians and bicyclists with car-free routes among diverse destinations, including downtown Philadelphia; Camden, New Jersey; and the Valley Forge National Historical Park. Along the way, trail users can access public transportation services, employment centers, open space, and various town centers. At present, 300 miles (483 km) of the network are in place, with a total of 750 miles (1,200 km) planned.

The Circuit expands on over a quarter-century of successful, yet piecemeal, trail development in the region and channels local support for improved active transportation infrastructure.

In 2015, Michael Nutter, former mayor of Philadelphia, summed up the effects of the popularity of bicycling in the city, noting, "Of the top ten big cities of America, Philadelphia has the highest percentage of bicycle commuters per capita. . . . Bicycling is a fundamental aspect of a city's mobility, economic development, public health, and environmental sustainability."

The U.S. Census shows that bicycle commuting in the Philadelphia region increased 151 percent from 2000 to 2009, and in 2014, 1.9 percent of Philadelphia commuters traveled by bike—a rate 1.75 times that of New York City and over three times higher than that of the United States as a whole.

Connecting regional trails. Due in large part to the high rate of bicycling in Philadelphia and the ongoing construction of paths like the Schuylkill River Trail, which sees up to 1 million users annually, leaders from the William Penn Foundation, a private philanthropic organization, and transportation and environmental advocates from the Bicycle Coalition of Greater Philadelphia and the Pennsylvania Environmental Council began to convene those involved with local trail planning, building, and programming in



As of 2015, 300 miles (483 km) of the planned 750-mile (1,200 km) Circuit Trails network were in place, with many more in development. (Delaware Valley Regional Planning Commission)

2010. This effort led to the formal creation of the Circuit Coalition in 2012, a group tasked with connecting the region's disjointed trails across nine local counties.

The Circuit Coalition includes more than 40 partner organizations, ranging from nonprofit advocacy groups, private foundations, and state, county, and local governments. The coalition engages in a wide array of activities, including advocating for trail funding, managing trail construction projects, and working with private developers and other companies to see trails incorporated into their developments.

Funding for the Circuit comes from a variety of sources. The William Penn Foundation has financed many of the efforts of the Circuit Coalition and has made a significant financial contribution



The Circuit Trails connect pedestrians and bicyclists to local parks, including Cooper River Park in Pennsauken, New Jersey. (*Rails-to-Trails Conservancy*)

to the planning, design, and construction of individual trail segments. Government transportation funds (federal, state, county, and local) also have funded Circuit trails, while nonprofit groups and donations from area residents and private companies—including real estate development firms with properties on or near the Circuit—have funded trail infrastructure as well.

Since the effort to connect the Circuit was launched, over 50 miles (80 km) of new trails have opened, with many more in development. Over 25 percent of the Philadelphia region lives within one mile (1.6 km) of a completed Circuit trail. Finishing the network will raise that figure to 50 percent.

The Circuit enjoys broad support. A 2015 survey conducted by the Bicycle Coalition of Greater Philadelphia found that 85 percent of area residents supported building more trails in their counties and 60 percent of respondents said they would like to have access to a trail within ten minutes of their homes.

Development, Quality of Life, and Economic Impacts

Investments in the Circuit have led to significant positive economic impacts for developers, local residents, and area municipal governments. When the Circuit was launched in 2012, Mayor Nutter explained how trail development can spur economic activity, stating, “Connecting the Circuit of trails in our region makes the Greater Philadelphia region a stronger, smarter, and more sustainable urban and suburban environment that attracts new companies and employers who choose to base their operations here.”

Across the region, the statistics speak for themselves. The Rails-to-Trails Conservancy found that the Schuylkill River Trail, a popular Circuit route, generated \$7.3 million in direct economic

impact along its route in 2009, and the Delaware & Lehigh Trail, a 165-mile (265 km) rail-trail through eastern Pennsylvania, was found to have generated an annual economic impact exceeding \$19 million in 2012. In addition, Rutgers University found that active transportation-related events, businesses, and infrastructure, including the Circuit, were estimated to have contributed \$498 million to the New Jersey economy in 2011.

Local residents are benefiting from higher property values along a number of Circuit routes. For example, a 2011 study by the GreenSpace Alliance and the Delaware Valley Regional Planning Commission found that properties within a quarter-mile (0.4 km) of the Radnor Trail, a 2.4-mile (3.9 km) trail in Radnor Township, Pennsylvania, were valued on average \$69,000 higher than other area properties further away. Real estate listings in Radnor frequently mention trail access in their advertisements, and for-sale signs often appear on the trail side of properties.

Residential developers have built properties with features that support use of Circuit trails, including the Station at Manayunk, a 149-unit apartment complex on a former brownfield adjacent to the Manayunk Canal Towpath. Developed by J.G. Petrucci, the project was completed in 2014 and features an on-site bike repair shop, a resident bike-share program, and a bicycle wheeling ramp down to the trail, allowing residents to commute by bike to Center City, Philadelphia.

In Philadelphia, Brandywine Realty Trust is developing trail-side properties, including the FMC Tower, a 49-story, 730-foot-tall (222 m) mixed-use skyscraper scheduled to be completed in 2016. Access to the Schuylkill River Trail is touted in advertisements for the tower. Gerard H. Sweeney, Brandywine's president and chief executive officer, expressed his company's support for connecting regional trails in a 2013 letter to the city of Philadelphia, stating, "When fully complete, the Circuit will help connect people to jobs, recreational opportunities, public transportation, and other neighborhoods, and will serve as a gateway to open green space."

Area private companies have invested directly in Circuit trails. Bristol-Myers Squibb, which has a major facility in Lawrenceville, New Jersey, has provided more than \$2.5 million for the development and construction of the 22-mile (35 km) Lawrence-Hopewell Trail, a portion of the Circuit close to Princeton, New Jersey. Educational Testing Services, also located along the route, gave additional financial support, and Brandywine Realty Trust built a segment of the Lawrence-Hopewell Trail running through the Princeton Pike Corporate Center at its own expense.

The trails of the Circuit also contribute to the health of Greater Philadelphia. A 2011 study by the GreenSpace Alliance and the Delaware Valley Regional Planning Commission found that residents' use of southeastern Pennsylvania's parks and trails, including the Circuit, avoids \$199 million per year in direct medical costs and \$596 million in indirect costs.

The continuing success of the Circuit shows how connected trails can have regional benefits beyond recreation. Across Greater Philadelphia, residents are using trails to get to work, to reach public transportation, and to exercise. The Circuit has also increased local property values and encouraged residential and commercial development along its many routes. As the network continues to expand, there will be further opportunities to invest in private development projects that both benefit from and support active transportation assets across the region.



Top: The Schuylkill Banks Boardwalk, part of the Circuit Trails network, allows pedestrians and bicyclists to commute, exercise, or relax over the Schuylkill River in Philadelphia. (Rails-to-Trails Conservancy)

Bottom: The Circuit Trails network features a mix of local and regional trails, including the Delaware River Heritage Trail. (Rails-to-Trails Conservancy)

Cycle Superhighways (Supercykelstier)

Copenhagen, Denmark



The Cycle Superhighways project connects suburban towns with the heart of central Copenhagen. (Copenhagen Cycle Superhighways)

QUICK FACTS

Project Type
Connected regional bicycle paths

Location
Greater Copenhagen, Denmark

Usage
Up to 3,973 users per weekday at Hareskovvej on the Farum route; up to 3,437 users per weekday at Finsensvej on the Albertslund route

Length
10.9-mile (17.5 km) route from downtown Copenhagen west into Albertslund; 13-mile (21 km) route from Copenhagen northwest to Farum; planned 311-mile (500 km) network

Year Constructed
Two routes of 28 completed as of 2015; nine more to be finalized by the end of 2018

Project Cost
Total cost of DKK413 million (US\$59.9 million) to DKK875 million (US\$127 million)

Funding
23 municipal governments, the Capital Region of Denmark (regional political body responsible for health care and development funding), Danish government

Organizational Lead
Cycle Superhighways "secretariat," a partnership between the Capital Region of Denmark and the 23 municipal government members of the project

Maintenance and Upkeep
Joint agreement between local municipalities to ensure consistency along route

IN 2012, the first of a planned network of 28 “cycle superhighways” opened in Copenhagen, with a second route opening in 2013. These upgraded bike paths connect the central city with suburban areas and link residential neighborhoods, schools, and business districts.

The cycle superhighways were planned to meet the needs of commuters in outlying parts of the Copenhagen region by creating long-distance routes with consistent, high-quality design standards. The project is intended to entice thousands of daily commuters to switch from driving to bicycling, thereby decreasing traffic congestion, carbon emissions, and health care costs, while increasing the quality of life of area residents.

Project Background

Bicycling in Copenhagen. The capital of Denmark has long been recognized as an international hub for bicycle culture due to its commitment to creating safe and efficient cycling infrastructure. According to the Danish government, there are more bikes in Copenhagen than inhabitants and the city boasts nearly 249 miles (400 km) of bike lanes—including the world’s busiest. Fifty percent of Copenhagen residents commute to work on a bike daily.

Pia Allerslev, mayor of Copenhagen for children and youth, explains how bicycling is part of daily life in the city, stating, “The bicycle offers a cheap, comfortable, easy, and eco-friendly way of getting around. When we ask Copenhageners why they choose their bike over the car or public transport, they simply answer, ‘Because it’s the fastest way of getting around in the city.’”

Connecting regional cycle routes. Even though bicycle commuting rates in Copenhagen were already significant, leaders from across the Capital Region came together in 2009 to further improve cycling infrastructure. This effort resulted in a plan to create 28 Cycle Superhighway, or “bike-bahn,” routes, by connecting and improving existing bike paths. By 2015, 23 municipalities were working together to develop the cycle superhighways.

Funding for the network comes from local municipalities and the Danish government. The 23 municipalities involved in the project are each responsible for the construction, operation, and maintenance of their portion of the network and pay half of the cost of constructing paths within their borders. The remaining costs are subsidized by the national government. A regional steering committee facilitates the planning work leading to the development of the routes, ensuring consistent design.

When complete, the network will include 311 miles (500 km) of cycle superhighways, at a budget of DKK413 million (US\$59.9 million) to DKK875 million (US\$127 million), depending on final design decisions.



A total of 28 Cycle Superhighway routes will link surrounding towns and neighborhoods with central Copenhagen. *[Copenhagen Cycle Superhighways]*

The underlying goal of the Cycle Superhighway plan is to increase bicycle commuting for those who travel distances exceeding 3.1 miles (5 km) from home to work, with a target of an additional 15,000 people opting to bike to work rather than drive, resulting in a 30 percent increase in bike commuting across the Capital Region.

As of 2015, two of the planned 28 Cycle Superhighway routes were open to the public, with nine more scheduled for completion by 2018. One finished route connects Copenhagen to Albertslund, a suburban community 11 miles (18 km) west of the city. The second links Copenhagen with Farum, a municipality 13 miles (21 km) northwest of Copenhagen. While these routes radiate out from central Copenhagen, future routes will also form links between suburbs.

The completed paths are already reshaping transportation in the region. The Farum Route saw a 52 percent increase in the number of cyclists traveling along the corridor between 2012 and 2014. Among Farum Route commuters, 21 percent were



Top: New uniform signage provides bicyclists using the cycle superhighways with clear routes between suburban towns and central Copenhagen. (Copenhagen Cycle Superhighways)

Center: LED lights along the path of the cycle superhighways automatically turn on when cyclists are present. (Copenhagen Cycle Superhighways)

Bottom: Many Cycle Superhighway routes are adjacent to roadways, but are physically separated from automobile traffic and pedestrians. (Copenhagen Cycle Superhighways)

new to bike commuting and 14 percent said they used the route more often after improvements. Users of the path were also surveyed about safety concerns, ranging from lighting to the potential for collisions, and reported an 11 percent increase in perceived safety due to improvements.

Cycle superhighway design features. The cycle superhighways are being formed by patching together and improving existing cycle routes. The paths feature smooth asphalt surfaces, shelters, and innovative lighting. In some areas, light-emitting diode (LED) lights sense whether cyclists are on the route and automatically turn off when sections are empty, resulting in an 80 percent reduction of power use.

Each superhighway is equipped with a bicycle pump at every mile, as well as foot rests at intersections that prevent cyclists from having to get off bikes when stopped.

Another major innovation is “green wave” technology that times traffic lights to the average bicycling speed of 12 miles (19 km) per hour and provides riders traveling at this speed with continuous green lights.

Cycle superhighways have varying widths, with less heavily traveled routes at 8.2 feet (2.5 m) wide, and busier stretches closer to central Copenhagen at 9.8 to 13.1 feet (3 to 4 m) wide. These widths are standard for the region, yet consistently allow two people to bike side-by-side.

Development, Quality of Life, and Economic Impacts

The city of Copenhagen found in 2010 that, across Denmark, every kilometer traveled by bike earns the country DKK1.22 (US\$0.18), while every kilometer traveled by car costs the nation DKK0.69 (US\$0.10). Furthermore, the University of Denmark estimates that automobile traffic congestion costs the Capital Region an average of DKK10 billion (US\$1.45 billion) per year.

The increase in cycling, and corresponding reduction in automobile use, produced by the opening of the cycle superhighways are expected to further contribute to the economic health of the Copenhagen region. The Capital Region predicts an economic return from the completed network of 19 percent, due to health care savings from increased physical activity, reduced air pollution levels, and fewer road fatalities. This compares favorably with the rate of return the Capital Region sees on investments in roadway projects. For example, Ring 3, a highway encircling Copenhagen, saw a rate of return of just 2.8 percent.

The Capital Region government estimates that the increase in physical activity created by the cycle superhighways will lead to 34,000 fewer sick days per year and a \$60 million reduction in health care costs, as well as a decrease of 1.4 million car trips taken per year and an annual reduction in CO₂ emissions equaling 856 tons.

As the Cycle Superhighway network grows, local governments and the private sector are working together to ensure that new residential and commercial developments will be accessible by bicycle. One major initiative is the Nordhavn district, a former port area of Copenhagen that is being redeveloped as a living and working district expected to house 45,000 residents. A new cycle superhighway, along with rail transit service, will be the main forms of transportation in Nordhavn.

The Ørestad area of Copenhagen, an area of the city that has seen continuing large-scale development since the 1990s, is already connected to other parts of the city by rail service and designated bike routes, but there also are plans to further improve connectivity by incorporating the Cycle Superhighway network into the local plan for the area.

Ørestad is already home to bicycle-friendly real estate developments, including the mixed-use 8 Tallet or “Big House,” the largest private development ever undertaken in Copenhagen, which is designed with exterior ramps that allow residents on all ten floors of the building to access their front door by bicycle.

The plan for the cycle superhighways builds off Copenhagen’s existing network of bike lanes, trails, and other cycle-related infrastructure, which supports bicycle-friendly development projects. The completed Cycle Superhighway routes have already increased the rates of bicycling from suburban areas into central Copenhagen.

The cycle superhighways are an example of municipal coordination that has health and economic benefits for the entire region, further contributing to Copenhagen’s role as a vibrant, livable city that is continuing to develop in a sustainable way.



Footrests allow users of the cycle superhighways to stop at red lights without having to get off their bikes. *(Copenhagen Cycle Superhighways)*

Cycle Superhighways

London, United Kingdom

QUICK FACTS

Project Type

Bicycle lanes, segregated from motor vehicle traffic, called "cycle superhighways"

Location

London, United Kingdom

Usage

East-West Superhighway planned capacity of 3,000 cyclists/hour; North-South Superhighway planned capacity of 2,500 cyclists/hour

Length

East-West Superhighway will be 18 miles (29 km), from Barking to Acton; North-South Superhighway will be three miles (5 km), from King's Cross to Elephant and Castle

Year Constructed

Construction began in the spring of 2015; scheduled to be completed in the summer of 2016

Project Cost

£160 million (US\$240 million)

Funding

Public transit fares, London Congestion Charge, government grants, borrowing, and income from advertising and property rental

Organizational Lead

Transport for London

Maintenance and Upkeep

Shared among Transport for London, the 32 London boroughs, and the city of London



A rendering of the East-West Cycle Superhighway along a portion of Victoria Embankment in central London shows the planned separation of bicycles, vehicular traffic, and pedestrians. (Transport for London)

IN SPRING 2015, construction began on two cycle superhighways that will connect central London and outlying areas of the capital with bicycling routes that are largely physically segregated from motor vehicle traffic. Also known as “Crossrail for Bikes,” a name evoking the east–west commuter rail line that is being built underneath central London, the new cycle routes are meant to be used as alternatives to driving or taking public transportation.

In addition to road safety benefits and an increase in the proportion of bicycle commuters, the £160 million (US\$240 million) investment in the creation of the cycle superhighways is spurring new residential and commercial development along the routes.

Project Background

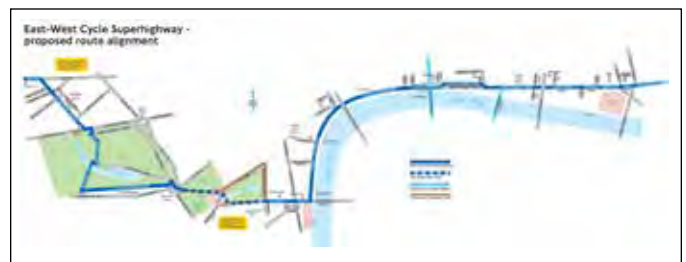
Bicycling in London. The demand for a system of cycle superhighways and the shift to bicycle-friendly development projects are a reflection of the changing landscape of transportation in and around London. Between 2001 and 2011, the number of Londoners who cycled to work more than doubled from 77,000 to 155,000, and bicycles now make up nearly a quarter of vehicles on the road during rush hour in central London. London is also home to more than 700 “Santander Cycles” bike-share stations with over 10,000 bikes available for short-term rentals.

In an effort to cater to existing bike commuters and further expand the number of cyclists in London, Ken Livingstone, the former mayor, and Transport for London, the local governmental body responsible for transportation throughout the region, began working in 2008 to create commuter cycling routes across London, a project that continues under Mayor Boris Johnson.

As of 2015, four cycling routes have been completed, but they have been criticized for their lack of physical separation from motor vehicle traffic. Six bicyclists were killed on the route known as “CS2” between 2011 and 2015.

Creating new cycle superhighways. The two new cycle superhighways scheduled to open in the spring of 2016 differ in that paths and bike lanes will largely be segregated from motor vehicle traffic, helping decrease the likelihood of cyclist injuries and deaths. In addition, CS2 is being reconstructed to improve its safety by providing separated tracks along most of its route.

More than 30 of London’s most dangerous intersections will be improved along the two brand-new cycle superhighways routes, with the aim of reducing cyclist fatalities and conflicts with large trucks, which make up only 5 percent of vehicles on the road but cause over 50 percent of all cyclist deaths. There also will be significant benefits to pedestrian safety, because the superhighways will result in more than 16,000 feet (4,900 m) of new sidewalk space and 22 new pedestrian crossings.



Top: London’s 18-mile (29 km) East–West Cycle Superhighway will link Tower Hill to Lancaster Gate. It is scheduled to be completed by summer 2016. (Transport for London)

Bottom: London’s three-mile (5 km) North–South Cycle Superhighway will link Elephant and Castle to Stonecutter Street, near Holborn Viaduct. It is scheduled to be completed by spring 2016. (Transport for London)



Above: Features such as dedicated signals for cyclists at intersections will improve the safety of bicycling around central London. (Transport for London)

Right: A cyclist rides along a segregated cycle track on Victoria Embankment in central London. (Transport for London)



The cycle superhighways will cost £160 million (US\$240 million), with funding coming from Transport for London, whose revenue is generated through a mix of public transit fares, the London Congestion Charge (a fee charged on most motor vehicles entering central London during the day on weekdays), government grants, borrowing, and income from advertising and property rental.

The new cycle superhighways will traverse London 18 miles (29 km) from east to west, between Barking and Acton, and three miles (5 km) north to south, between King's Cross and Elephant and Castle, creating connections among residential areas, transit stations, places of employment, and parks.

Along the cycle superhighway routes, bike riders will pass near landmarks, such as Hyde Park, Buckingham Palace, the Houses of Parliament, and the Tower of London. The first nearly mile-long (1.6 km) section opened in November 2015, with the remaining construction scheduled to be completed by the summer of 2016.

Improved design features of the cycle superhighways will include physical separation from motor vehicle traffic, signalized cycle crossings to allow cyclists to safely cross busy roads, traffic signal changes to allow cyclists to proceed before other traffic, and new LED lighting.

Development, Quality of Life, and Economic Impacts

The increasing popularity of bicycling in London has positive economic implications for the region and the United Kingdom as a whole. The London School of Economics found in 2011 that cycling generates nearly £3 billion (US\$4.32 billion) for the U.K. economy each year.

Mayor Johnson has championed the economic and quality-of-life benefits of bicycling and the cycle superhighways, noting that they are an essential part of the city's effort to accommodate residential growth and development. He has said, "With London's population growing by 10,000 a month, there are only two ways to keep traffic moving—build more roads, which is for the most part physically impossible, or encourage the use of vehicles, such as bikes, which better use the space on the roads we've already got."

Building the cycle superhighways is expected to benefit London by reducing traffic congestion. Transport for London estimates that the new east-west bicycle superhighway will be able to accommodate up to 3,000 people an hour, which would be equivalent to adding 41 fully loaded double-decker buses to the route that parallels the superhighway. The north-south route is expected to carry up to 2,500 cyclists an hour, equivalent to

the capacity of 34 extra buses. Given that the routes also largely align with London Underground transit lines, these superhighways are expected to take many commuters off the trains, reducing transit congestion and increasing travel capacity into central London.

Due to the reduced traffic congestion and increased physical activity that the cycle superhighways are expected to produce, Transport for London predicts that improved public health and environmental outcomes will lead to a net £76 million (US\$110 million) economic benefit for London over the next 30 years.

The economic benefits of the cycle superhighways also extend to new development projects, since coordination among Transport for London, local governments, and area developers has led to plans for new apartments, offices, shops, restaurants, and bars along the routes.

Examples of developments along the planned cycle superhighways include the following: Elephant Park, a 2,500-unit residential development at the southern end of the north-south route that will include cycle paths that connect to the superhighway and 250 City Road, a 930-unit apartment development close to the cycle superhighways, which will include 1,486 bicycle parking spaces (see 250 City Road profile).

The combination of the growing number of commuter cyclists in London and the increasing popularity of bicycle-friendly development projects has significant positive implications for the health, safety, livability, and economy of London.

As the city's population continues to grow, providing safe and convenient bicycle infrastructure can help reduce traffic congestion and catalyze new development opportunities that leverage the shift toward active transportation throughout London.

Midtown Greenway

Minneapolis, Minnesota

QUICK FACTS

Project Type
Rail trail

Location
Minneapolis, Minnesota

Usage
Up to 5,460 bicyclists daily

Length
5.5 miles (8.8 km)


Year Constructed
First segment opened in 2000, most recent segment opened in 2007; connection across Mississippi River and into St. Paul proposed

Project Cost
\$36 million

Funding
Federal, state, county, and city governments; Hennepin County Regional Railroad Authority

Organizational Leads
City of Minneapolis, Midtown Greenway Coalition, Hennepin County

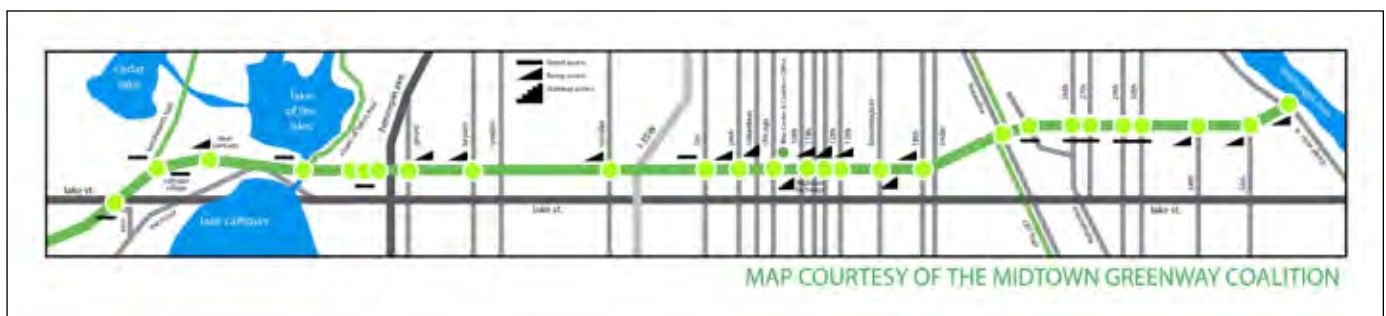
Maintenance and Upkeep
City of Minneapolis, Hennepin County Regional Railroad Authority



As a key section of the Midtown Greenway, the Martin Olav Sabo Bridge allows pedestrians and bicyclists to cross busy Hiawatha Avenue without encountering motor vehicle traffic. (Shutterstock/nikitsin.smugmug.com)

THE MIDTOWN GREENWAY is a commuter trail in Minneapolis that was built in stages between 2000 and 2007, with future extensions still to come. The Greenway provides healthy and safe automobile traffic-free connections between key destinations in south Minneapolis and facilitates access to the heart of downtown due to its links with other bicycle and pedestrian infrastructure.

The Midtown Greenway has come to be known as a “bicycle freeway” because it includes separate one-way paths for each direction of bicycle travel and a parallel two-way pedestrian path. The creation of the Greenway has led to an explosion of residential and commercial development along the surrounding corridor.



The Midtown Greenway connects popular Minneapolis neighborhoods with parks and open space. *(The Midtown Greenway Coalition)*

Project Background

Bicycling in Minneapolis. With more than 200 miles (322 km) of bikeways, cycling as a means of transportation has become a way of life for many in Minneapolis. Due in part to the completion of the Midtown Greenway, Minneapolis experienced a 76 percent increase in cycling between 2007 and 2013. The city's bike-share system, Nice Ride Minnesota, also supports trail use and includes 170 stations, many located along Minneapolis's bicycle freeways.

Minneapolis Mayor Betsy Hodges explained that active transportation has flourished in her city—despite its harsh winters—because of the emphasis that local leaders have placed on improving conditions for bicyclists. The mayor stated, “Minneapolis has long been recognized as one of the best bicycling cities in the country. . . . We have the second-highest rate of people biking to work among large U.S. cities, including winter commuting. Much of this is possible because of our city's efforts to maintain off-street trails year-round.”

The Midtown Greenway—a “bicycle freeway.” The Midtown Greenway runs 5.5 miles (8.8 km) east to west along a former rail corridor in south Minneapolis. The trail connects the Uptown neighborhood, the Mississippi River waterfront, the Chain of

Lakes park area, and various bicycling routes, including the Southwest Light-Rail Transit and Hiawatha Trails.

Following the example of Minneapolis's Cedar Lake Trail, which was built between 1995 and 2011 and was the first in the United States to implement the “bicycle freeway” concept of segregated travel lanes, the Midtown Greenway includes two unidirectional paths for bicyclists and a multidirectional path for pedestrians.

Before the first segment of the Midtown Greenway opened in 2000, the freight railway corridor where the Greenway was eventually built had become littered with trash; it had not been operational since the early 1990s. Recognizing the potential of the corridor as an active transportation route, the Midtown Greenway Coalition was formed in 1995 to advocate for the railway's transformation into the bicycle freeway that it is today.

Neighborhoods adjacent to the corridor range from Uptown, a long-popular commercial and entertainment district, to industrial areas that had experienced significant disinvestment. Residential neighborhoods of varying densities also line the corridor.

The Midtown Greenway Coalition worked with the city of Minneapolis and other public agencies throughout the process of planning and constructing the Greenway. The coalition



continues to engage with local residents, businesses, and private developers to ensure that the Greenway is protected and continually improved.

Funding for the Midtown Greenway came from a variety of sources, including government funds (federal, county, state, city, and neighborhood), the Hennepin County Regional Railroad Authority, and a congressional earmark. Private funds—including from real estate developers—also have been used to improve access to the trail, by way of pedestrian and bicyclist bridges and ramps. Segments of the Midtown Greenway opened in phases beginning in 2000, with the most recent section—the pedestrian- and bicyclist-only Martin Olav Sabo Bridge—coming on line in 2007. The bridge connected two existing sections of the Greenway and eliminated the need for trail users to cross the seven-lane Hiawatha Avenue at street level. At 20 feet (6 m) below grade, the Midtown Greenway is well lit and snow is plowed in the winter less than 24 hours after it falls, making it accessible at all times of the year. Ramps along the Greenway allow users to exit the trail to reach local places of employment, shops, residences, and restaurants.

The Midtown Greenway forms connections to Minneapolis's growing transit and trail network, allowing rail and bus riders to complete their journeys by walking or bicycling. The Hiawatha Trail connects the Greenway to the Lake Street Midtown station on the 12-mile (19 km) Blue Line light-rail service. Trail users can also connect to the Cedar Lake Trail via the Kenilworth Trail to reach downtown and Target Field Station, a major transit hub, and the meeting point of two light-rail lines, heavy-rail commuter service, and numerous bus routes.



The Midtown Greenway includes separate lanes for opposing directions of bicycle traffic, as well as dedicated space for pedestrians. (Tim Springer)

Development, Quality of Life, and Economic Impacts

The Midtown Greenway has transformed commuting options and improved the quality of life in many Minneapolis neighborhoods, and the real estate community has taken note.

Along the Midtown Greenway route, at least 11 separate projects, ten of which are residential, were developed between 2004 and 2014. According to Hennepin County Commissioner Peter McLaughlin, property values along the corridor have increased by over 90 percent in the past ten years.

The Midtown Greenway Coalition is strongly in support of development along the trail and frequently provides feedback to developers to make sure that project designs help ensure the continued success of the Greenway. Soren Jensen, the coalition's executive director, explains, "The Midtown Greenway has helped spark more than \$750 million worth of new housing developments along its edges. It has truly helped to revitalize south Minneapolis, as well as helping to spark the biking renaissance in Minneapolis."

Highlights of the numerous recent projects developed along the Midtown Greenway include the following:

- >> **The Midtown Exchange**, a \$190 million project that redeveloped a formerly abandoned Sears distribution center, which is the second-largest building in Minnesota in terms of leasable space. Completed in 2006, the 1.2 million-square-foot (111,500 sq m) development included a mix of office, residential, hotel, and retail space, with multiple access points and entrances along the Midtown Greenway.
- >> **Elan Uptown**, a 591-unit, \$150 million residential development built in 2013 that includes a three-block public promenade along the Greenway and direct trail access for residents.
- >> **Track 29 City Apartments**, a 198-unit, \$38.5 million residential development that includes a ramp and public promenade for Midtown Greenway users, as well as bike storage and a bicycle repair facility.
- >> **Lime**, a \$36.5 million mixed-use project with 171 apartments and 8,500 square feet (800 sq m) of retail space. The Midtown Greenway Coalition worked with project developers to ensure that the building did not create shadows that would lead to icing on the Midtown Greenway in winter.
- >> **Greenway Heights**, a \$9.1 million, 42-unit affordable housing complex with two-, three-, and four-bedroom family apartments built directly adjacent to the Midtown Greenway.
- >> **MoZaic**, a \$45 million, 77,000-square-foot office (7,200 sq m) and retail development along the Midtown Greenway that includes a ramp and pedestrian bridge that connects to the trail. A second phase of the project is in development (more information on page 26).



The development of the Midtown Greenway offers lessons for other cities in how urban trails can form a crucial component of a region's transportation network. The Greenway has attracted residential, office, and retail development along its corridor, and developers have found that prospective tenants see trails as an attractive asset that sets their projects apart from others in the region.

With higher property values along trail corridors and the continuing expansion of bicycle infrastructure, Minneapolis is illustrating the role that bicycle freeways can play in revitalizing once-underused corridors in a healthy and economically beneficial way.

Users of the Midtown Greenway in Minneapolis can connect directly to residential areas, offices, and entertainment districts on foot or by bicycle.
(Micah Taylor)

Bicycle Sharing

Paris, France; Montreal, Canada; Hangzhou, China

QUICK FACTS

Location
Paris, France

System Name
Vélib'

Number of Bicycles
21,278 (2015)

Number of Stations
1,800 (2015)

Average Daily Ridership
108,117 (2014)

Location
Montreal, Canada

System Name
Bixi

Number of Bicycles
5,200 (2015)

Number of Stations
460 (2015)

Average Daily Ridership
21,000 (2015)

Location
Hangzhou, China

System Name
Hangzhou Public Bicycle

Number of Bicycles
78,000 (2014)

Number of Stations
3,131 (2014)

Average Daily Ridership
300,000 (2014)

As of 2015, Vélib' is one of the largest bike-sharing systems in the world, with more than 21,000 bicycles. (Matt Biddulph)

BICYCLE-SHARING SYSTEMS—services that allow people to rent or borrow bikes for relatively short durations—have become increasingly popular since the early 2000s in cities throughout the world. In 2004, there were just 13 large municipal bike-share systems worldwide. This figure increased to more than 800 as of 2015—with over 200 in China alone.

By providing low-cost rides, bike-share systems allow riders to commute to work, run errands, or access recreational destinations in a healthy way. Many systems fill in gaps in bus and rail transit networks and have also led to positive economic, health, and development outcomes.

The Evolution of Bike Sharing

The concept of bike sharing on a municipal level was introduced in the 1960s when so-called *witte fietsen*—white bikes—were placed around Amsterdam for use by the public. The idea was that anyone would be able to borrow a bicycle, ride it to his or her destination, and then leave it at that location for someone else to use. However, within a few days, the *witte fietsen* were largely stolen or vandalized.

A small number of systems that were variations on the *witte fietsen* concept were attempted over the next 30 years, but most suffered similar issues with theft and maintenance.

The first major innovations to the bike-sharing concept in a large city occurred in 1995, when Copenhagen's *Bycyklen*, or "City Bikes," system was launched. City Bikes, which were built to be more durable than standard bicycles, were placed at 110 locations throughout the central city and could be checked out with a coin deposit for unlimited use.

Features of Modern Bike-Sharing Systems

Various innovations on Copenhagen's City Bikes concept occurred over the next decade, leading to the types of systems frequently seen in the 800-plus cities where bike sharing exists today.

While slight differences exist in the scale and technology used in various bike-sharing systems around the world, most have a few components in common. According to the Institute for Transportation & Development Policy, these features include the following:

>> **Fixed station locations at regular intervals throughout urban areas.** Bike-share stations are generally placed close to areas that generate a significant number of short trips throughout the day, including business districts with large numbers of office workers, areas with a high density of shops

and restaurants, tourist destinations, major parks, large residential developments, and transit stations.

>> **Proximity to active transportation infrastructure.** Stations are frequently located along streets with bike lanes, designated bike routes, and commuter trails.

>> **Automated stations.** While some systems are staffed by attendants, the majority of large municipal and regional systems feature automated bicycle docks. Some larger stations are walled, with access through turnstiles instead of having individual docks.

>> **Information technology payment and station locator systems.** Bike-share users rely on smartphone apps, credit cards, and other information technology services to locate bike-share stations and to pay for bike rentals. Charges often increase the longer bikes are checked out to keep bicycles in circulation and to encourage short-distance trips. Many systems offer free 30-minute rides with membership plans.

>> **Durable bikes with standard designs.** Bicycles are built to be sturdy and require minimal maintenance.

>> **Marketing and branding.** Systems have consistent branding and feature distinctive logos and bike designs to set them apart from other transportation modes. Marketing campaigns inform the public about how systems work and how they are integrated with other modes of transportation.

Development, Quality of Life, and Economic Impacts

Bike-sharing programs have a host of benefits for cities and their residents. According to the National League of Cities, benefits include the following: providing low-cost transit options for users in a cost-effective way, reducing traffic congestion, improving access to jobs, increasing retail exposure and home values, increasing overall levels of physical activity, and decreasing levels of air pollution.



The Vélib' bike-share system in Paris features stations located across the city and surrounding municipalities. (David McSpadden)

Paris Vélib': A Scaled-Up System of Bike Sharing

In 2007, Paris launched the Vélib' bike-sharing program with 7,000 bikes. By 2008, municipal data showed a 70 percent increase in bike riding and a 5 percent reduction in car use. As of 2013, Vélib' had the highest market penetration of any bike-sharing system in the world, with one bike per 97 residents. By 2015, the number of available bikes had more than tripled, with 21,278 bicycles spread across over 1,800 docking stations throughout the city.

Vélib' is financed and run by the French advertising firm JCDecaux. In an agreement with the city of Paris, JCDecaux was given the right to install advertisements in locations throughout the city, keeping associated profits, while the income generated by Vélib' user fees—estimated at €30 million (US\$32.49 million) annually—goes to the city's general budget. Vélib' is the world's longest-running public/private partnership bike-sharing system.

Shortly after Vélib' began service, Bertrand Delanoë, then mayor of Paris, explained his support for the program by noting that "Vélib' is a high-performance service that enables everyone to take advantage of a practical, inexpensive, and ecological means of transport 24 hours a day and seven days a week, providing a new approach to urban mobility."

The scale and success of Vélib' inspired the creation of bike-share systems throughout the world.

Montreal Bixi: Bike Sharing and Increased Property Values

The city of Montreal started a municipally run bike-share system in 2009, called Bixi. It was modeled after Paris's Vélib' and was the first bike-sharing system in North America. By 2015, the Bixi system included 5,200 bikes across 460 stations.

While the system has experienced financial difficulties, including declaring bankruptcy in 2014, it remains popular with Montreal residents and accommodated 3.5 million rides in 2015, an increase of 9.4 percent from the previous year.

Canadian businessman Bruno Rodi, who financed a bailout of the system in 2014, explains the importance of the system to Montreal, saying, "Bixi is part of the signature of Montreal. It symbolizes an active city, a clean city, modern, and focused on sustainable development." Today, Bixi is run by the nonprofit organization Bixi Montreal, with funding from user fees and the city of Montreal.

Bixi has had positive economic impacts for Montreal. According to a McGill University study, neighborhoods with 12 stations within a half-mile (800 m) area saw increased property values for multifamily housing units of 2.7 percent.

The study looked at Montreal housing units that were sold multiple times between 1996 and 2012 and found that each single Bixi station within a half-mile (800 m) area increased a unit's value by CA\$709 (US\$502). Homes in Bixi's coverage area were found to have an average of 12.2 stations within a half-mile (800 m), leading to a CA\$8,650 (US\$6,123) increase in their values.

With 5,200 bikes across 460 stations as of 2015, Montreal's Bixi bike-share program was the first in North America. (pdinnen)



Hangzhou, China: Bicycle Sharing on a Grand Scale

Hangzhou, China's bike-sharing system, Hangzhou Public Bicycle, debuted in 2008 and was the first bike-share program in Mainland China that operated with an information technology-based system. As of 2015, Hangzhou Public Bicycle had 78,000 bikes and 3,131 stations, making it second only to Wuhan, China, in its scope. Funding comes from advertising revenue, user fees, and government subsidies.

Hangzhou's bike-sharing system allows riders to use payment cards for bicycle rentals that can also be used for public transit and taxi services. Bike-share stations are integrated with public transportation routes, with many stations accommodating up to 140 bikes. By 2011, more than 30 percent of Hangzhou commuters used bike sharing as part of their commute.

Due to rapid economic development and significant population growth, Hangzhou—a city with a population of nearly 8.5 million in 2010—is continuing to invest in bike sharing to improve urban mobility. The city has plans to increase the number of bikes in its system to 175,000 by 2020.



As of 2015, the Hangzhou Public Bicycle system had 78,000 bikes and 3,131 stations. (Payton Chung)

Bike sharing has been shown to produce positive impacts for the retail sector. A University of California, Berkeley, study found that four out of ten people in Toronto and Montreal shopped more at locations near bike-share stations, while Washington, D.C.'s Capital Bikeshare program found that 82 percent of people were "somewhat more likely" or "much more likely" to patronize a business, restaurant, or shop if it was accessible through a bike-share program.

In a number of instances, cities are working with private businesses and real estate developers to share both the costs and benefits of bike sharing, including in London, where developers of a mixed-use project called 250 City Road are working with the municipal government to finance the creation of a new "Santander Cycles" station on their property (see project profile).

Bike sharing can also contribute to public health. A study by Spain's Centre for Research in Environmental Epidemiology found that Barcelona's bike-share system contributes to reducing yearly CO₂ emissions by an estimated 9,900 tons (9,000 metric tons) and leads to the equivalent of 12 lives saved each year due to increased physical activity, even when controlling for risks of collisions and air pollution.

The benefits of bike sharing for cities and their residents have spurred continuing increases in the number and size of systems. By enhancing the ease of access to active transportation opportunities, bike sharing is shaping transportation planning and real estate development decisions around the world.



Resources

Active Living Research

<http://activelivingresearch.org>

Alliance for Walking & Biking

www.bikewalkalliance.org

The Circuit Trails

www.connectthecircuit.org

Colorado Health Foundation

www.coloradohealth.org

Cycle Superhighways—Transport for London

<https://tfl.gov.uk/modes/cycling/routes-and-maps/cycle-superhighways>

Every Body Walk!

<http://everybodywalk.org>

League of American Bicyclists

www.bikeleague.org

Lloyd EcoDistrict

www.ecolloyd.org

Midtown Greenway Coalition

<http://midtowngreenway.org>

Nashville Area MPO—Health and Well-Being

www.nashvillempo.org/regional_plan/health

Partnership for Active Transportation

www.railstotrails.org/partnership-for-active-transportation

PeopleForBikes

www.peopleforbikes.org

Project for Public Spaces

www.pps.org

Rails-to-Trails Conservancy

www.railstotrails.org

Robert Wood Johnson Foundation—Designing for Public Health

www.rwjf.org/en/library/research/2005/02/designing-for-active-transportation.html

Smart Growth America

www.smartgrowthamerica.org

Supercykelstier—Copenhagen Cycle Superhighways

www.supercykelstier.dk

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Is “Trail-Oriented Development” the Next TOD?

Active Transportation and Real Estate: The Next Frontier explores the interconnections among walking, bicycling, and real estate development. It showcases the growing synergies between real estate development and bicycle and pedestrian infrastructure investments.

Across the globe, developers are seizing a competitive advantage by leveraging growing interest in biking and walking among residents and tenants. And municipalities are promoting health, equity, and sustainability by investing in active transportation infrastructure projects, such as trails and greenways. Learn more about these trends and opportunities inside this report.



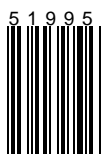
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artspace

Building better communities through the arts

Artspace has championed the once radical idea that artists living on the edge of poverty and chronically underfunded arts organizations can leverage fundamental social change. A generation later, leaders across disciplines are recognizing that the arts can advance public agendas from job creation and transit-oriented development to cultural and historic preservation. But there is often a gap between “can” and “how.” The arts can build social equity, but how is this achieved, especially in our most destabilized, marginalized communities?

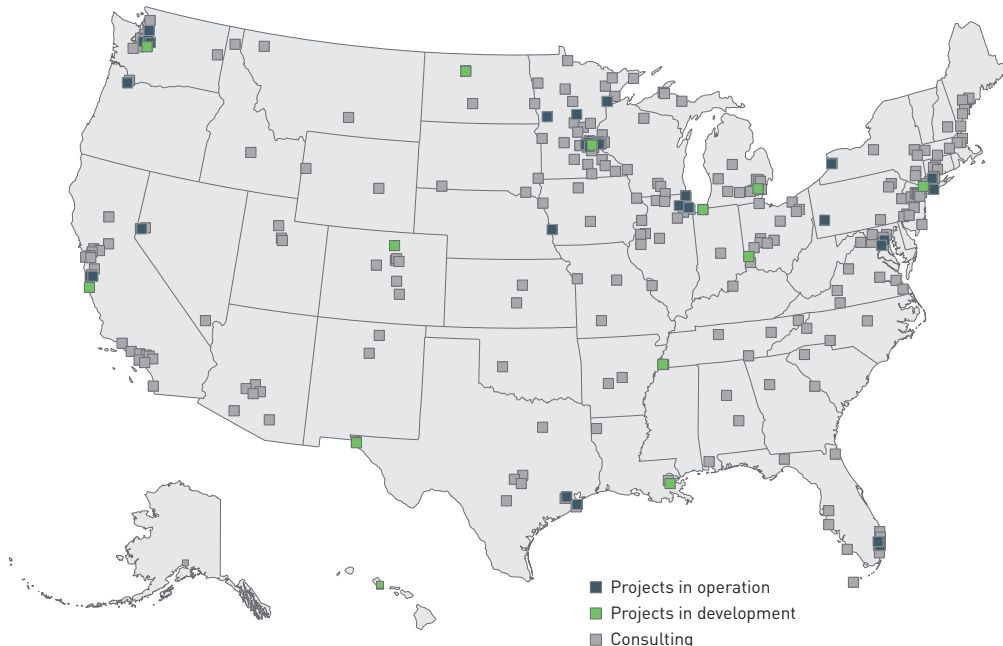
Artspace has the hard-earned expertise necessary to create sustainable, affordable spaces for the arts that catalyze change.

We have brought our expertise to more than 300 cultural facility planning efforts from coast-to-coast. Of these projects, 35 have been developed and are owned and operated by Artspace itself, a unique portfolio representing a \$500 million investment in America’s arts infrastructure. Driven by a robust, diverse pipeline of future projects, our portfolio will double over the next decade.

Through third party research, we know that our projects transform communities. Internally, they create affordable, appropriate space that allows individual artists and arts organizations to be more artistically productive and increase their revenue.

Externally, we foster the safety and livability of neighborhoods without gentrification-led displacement. We animate deteriorated historic structures and underutilized spaces, bringing them back onto the tax rolls. We help anchor arts districts, expand access to the arts, and attract artists, businesses and organizations to the area.

Most importantly, our projects are sustainable. Our earliest projects are now 20 years old, and they continue to meet the needs of their resident artists and arts organizations while adding vitality to their neighborhoods without depending upon on-going annual fundraising.



“Just take a look at Artspace. They create spaces – affordable, sustainable spaces – for artists and arts organizations, and in return, those artists and arts organizations put down roots and become an integral part of the community. Art is created, absolutely. But so are jobs, safer streets, sustainable development, and a more cohesive society.”

– National Endowment for the Arts
Chairman Rocco Landesman

\$582 million
Total dollars spent in development

14
Projects in development

29
States with Artspace projects
in operation or development

3,440,962
Total square footage

1,759
Live/work units

37
Cities with Artspace projects
in operation or development

35
Projects in operation

125
Working studios

45
States in which Artspace has consulted

For more information on Artspace and its work nationally, contact:

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612.465.0248



FREQUENTLY ASKED QUESTIONS

Q: What is Artspace?

A: Artspace is a nonprofit real estate developer specializing in creating, owning and operating affordable spaces for artists and creative businesses. Artspace is the nation's leading developer of arts facilities — live/work housing, artist studios, arts centers, commercial space for arts-friendly businesses and other projects.

Q: What is Artspace's mission?

A: Our mission is to create, foster and preserve affordable space for artists and arts organizations.

Q: How does Artspace fulfill that mission?

A: Artspace works in three major areas — Consulting Services, Property Development and Asset Management.

- > Through our Consulting Services, we share our expertise with clients across the country. In our process, we analyze and study the feasibility of new Artspace projects.
- > Property Development creates new Artspace projects through a mix of historic renovation and new construction.
- > Artspace's Asset Management group ensures long-term financial stability and affordability for artists.

Q: How many projects are currently owned and operated by Artspace?

A: At present, we own and operate 33 projects across the country. Twenty-six are live/work or mixed-use projects comprised of more than 1,100 residential units. Our portfolio of projects is rounded out with non-residential projects that provide space for artists and cultural organizations.

Q: What is the definition of a "live/work" project?

A: A live/work project is a residential building in which each dwelling has extra space (100 to 150 square feet) that

the artist can use as a studio. Live/work units by Artspace have consistent design elements, such as high ceilings, large windows, durable surfaces and wide doorways. These spaces are designed to accommodate and foster a variety of creative processes. Artspace live/work projects also include common spaces such as galleries, meeting rooms and green space that encourage tenant engagement, cooperation and community involvement. Most Artspace live/work projects are mixed-use buildings with housing on the upper floors and non-residential space on the lower floors.

Q: How does Artspace decide where to develop its projects?

A: Communities interested in pursuing an Artspace project invite our Consulting Services staff to assess the feasibility of developing a project. In an average year we make 15 to 20 feasibility visits to cities around the country; of these, two to four typically lead to projects. Our location decisions are primarily based on the feasibility and viability of the project as well as community support and engagement.

Q: After an Artspace project is started, what is the estimated time until completion?

A: Artspace projects normally span from four to seven years in most cases.

Q: Why does it take so long?

A: First, we are committed to community engagement as an essential part of the development process. Each Artspace project is built to address the unique needs of a specific community. We believe that the key to a successful project is taking the time to observe and listen to artists, civic leaders and other stakeholders in the community. Second, we research and build relationships with a variety of public and private funding sources. Though this can be a time-consuming process, it has an important upside: Artspace projects are fully supported and funded at the time of ground breaking.

FREQUENTLY ASKED QUESTIONS

Q: How are Artspace projects funded?

A: We access public funding sources including those available for the creation of affordable housing, economic development, historic preservation and cultural facility development. Private sector funding often includes conventional bank financing as well as individual and community philanthropic support.

Q: Do the Artspace live/work projects qualify as affordable housing?

A: Yes. The majority of Artspace housing units are affordable to households earning at or below 60% of the Area Median Income (AMI) of the city or county in which the project is located.

Q: How much does it cost to live in an Artspace project?

A: In setting our rents, we adhere to affordable housing guidelines established by the U.S. Department of Housing and Urban Development. HUD uses a formula based on the local AMI, the degree of affordability of any given unit (expressed as a percentage of the AMI), the number of bedrooms in the unit, and the number of people in the household. While rents vary by community, our goal is to provide affordable space that is adequate for artists both to live and to work in their units. Artspace buildings provide live/work spaces that are larger than other affordable spaces and usually less expensive than other comparable spaces. And as part of our sustainability model, Artspace buildings remain affordable in perpetuity.

Q: Do you have to be an artist to live in an Artspace live/work project?

A: Anyone who qualifies for affordable housing may apply for residency in an Artspace project, but we give preference to those applicants who participate in and are committed to the arts. Applicants need not derive their income from their art.

Q: How does Artspace determine who is an artist?

A: We define the term “artist” broadly to encompass a wide variety of creative pursuits, including traditional art forms and those as diverse as clothing design, weaving and even canoe making. A community-based Selection Committee interviews all applicants. The committee looks for evidence that applicants are seriously committed to their art and that they will be mindful

and positive contributors to the building and community. The application and qualification process does not include judgment of quality of work.

Q: Who owns an Artspace live/work project when it is completed?

A: Once completed, Artspace retains ownership of its projects. We remain involved as owner/operators of our projects to ensure that the projects remain affordable for artists over the long term. In addition, we maintain and nurture our partnerships with the communities and artists.

Q: How does Artspace sustain its projects once they are in operation?

A: Artspace projects are financially self-sustaining through tenant rents, which are sufficient to meet mortgage payments, fund reserves and operating costs. Revenues in excess of expenses are set aside for preventive maintenance, common area improvements, and building upgrades. Artspace’s asset managers visit our properties multiple times a year to gather feedback, offer guidance, support and to provide connections for best practices throughout the Artspace community.



America's Leader in Artist-Led Community Transformation

For more than 30 years, Artspace has brought its hard-earned expertise to more than 200 cultural facility planning efforts from coast to coast. Of these projects, 33 have been developed and are owned and operated by Artspace itself, representing a unique, \$500 million investment in America’s arts infrastructure. With headquarters in Minneapolis and offices in New York, Seattle, New Orleans, Los Angeles and Washington D.C., Artspace is America’s leading developer of arts facilities. To date we have completed more than a thousand affordable live/work units for artists and their families as well as more than a million square feet of non-residential space for artists and arts organizations. Additional information is available at www.artspace.org.




Human Services Needs Update

2015- 2016



City of Bellevue
Parks & Community Services Department
www.bellevuewa.gov



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Overview



Overview

The Bellevue Human Services Needs Update for 2015-2016

The City of Bellevue publishes the Human Services Needs Update at the beginning of each two-year human services funding cycle. Since 1989, this report has offered a summary of trends within Bellevue, East King County, the Puget Sound region, Washington State and the nation. Through this report, we hope to provide a broad vision and context for understanding human service needs, and for inspiring actions that will ameliorate barriers to achieving a high quality of life for all Bellevue residents.

Methodology

Some of the multiple sources of information that support the conclusions of the Needs Update include:

- A phone/online survey of 423 Bellevue residents (249 by phone, 171 online)
- A written survey of over 100 consumers of human services in Bellevue translated into five languages in addition to English
- Online surveys completed by 54 human services providers
- Key informant interviews with 16 administrators or community representatives
- Meetings with City of Bellevue staff, such as Neighborhood Outreach, Police, Fire, Civic Services and Development Services
- Over 20 Community Conversations with Bellevue residents and providers of human services
- Reports, studies and online databases covering a wide range of service areas and issues, as well as data from the United States 2010 Census, and data from the 2011-2013 American Community Survey (ACS)

Bellevue: Community Profile

- In 2015, Bellevue's population was estimated to be 135,000. This is compared to a population of 109,569 in 2000, and 86,874 in 1990. Average household size is increasing

after a decreasing trend. In 1970 there was an average of 3.4 persons per household, dropping to 2.4 in 1990, and 2.37 in 2000. According to the 2010 Census, Bellevue's average household size is back up to 2.41, and in 2011-2013 it was estimated to be 2.45.

- According to the 2011-2013 ACS data 6.0% of Bellevue residents were under age five, 15.9% were 5-19, 38.0% were age 20-44, 26.2% were age 45-64, and 14.0% were age 65 and older.
- Since 1990, the proportion of Non-White residents in Bellevue has nearly tripled from 14.7% of the population to 40.8% in 2010. Bellevue's Asians and Hispanics are the fastest growing racial and ethnic group in the city.
- About half (45%) of Bellevue's households fell within the highest income categories in 2011-2013. However, over a quarter of Bellevue's households had incomes less than \$50,000.
- Bellevue saw significant increases in poverty levels since 2000. Families with incomes below the federal poverty level (FPL) rose from 3.8% in 2000 to 5.7% in 2011-2013. However, some families such as households headed by females with children under age 18 are more likely to earn incomes below the federal poverty level (33.9%).

Quality of Life in Bellevue

Nearly all (96%) of respondents to the phone/online survey said that the quality of life in their community was "excellent" or "good". Respondents were asked to rate each of 32 problem areas as a major, moderate, minor or not a problem in their community. The majority of respondents to the 2015 phone/online survey (52%) rated at least five of the community problem issues asked about as a major or moderate problem in their community. This is similar to the results in 2013 when 53% rated it as such. Nine issues received a "major" or "moderate" rating from at least three out of ten (30%) respondents including:

- Lack of affordable housing (68%)
 - Having jobs that do not pay for the basics (40%)
 - Lack of affordable child care (40%)
 - Inadequate public transportation (38%)
- Groups of residents who perceive more problems in the community included households with incomes less than \$25,000, women, residents who have not recently immigrated here and residents who are 55 and older. The more problems experienced in residents households the higher the average number of problems rated as major or moderate in the community.

Accessing Services

- In 2015, the majority (74%) of those taking the phone/online survey believe that people in the community have adequate access to services.
- The 7% who indicated that there was inadequate access to human services most frequently mentioned the following areas: affordable housing, financial help, mental health, general information about services, housing and employment.

Connectedness in Bellevue Communities

A number of City efforts contribute to the high quality of life that Bellevue residents enjoy. Some of these include:

- Neighborhood Outreach Program works with neighborhood leaders and residents to build up the health, livability and community connections, such as Mini-City Hall, Neighborhood Liaisons and Neighborhood Forums;
- Downtown Livability Initiative is a targeted review of regulations that guide development and land use activity. An Advisory Committee recommended 25 code changes on topics such as public open spaces and desirable amenities;
- Diversity Focus Group is comprised of concerned and involved community members that are committed to improving the relationship between the Bellevue Police Department and Bellevue's diverse community.

Eastside Pathways

- Eastside Pathways was founded in 2011 to mobilize the community to support every child, step by step, from cradle to career. Eastside Pathways (EP) consists of a backbone organization that is a 501c3 with a board of directors and a partnership of over 50 organizations and several individuals. Eastside Pathways is modeled after StriveTogether which is part of the STRIVE Network which consists of sixty-three communities throughout the nation. StriveTogether supports communities using the collective impact approach.
- Eastside Pathways goals are:
 - **Healthy Start:** Every child has a healthy start.
 - **Academic & Work Success:** Every child is prepared for academic and work success.
 - **Mental & Physical Health & Safety:** Every child attains optimal mental and physical health and safety.
 - **Social & Emotional Skills:** Every child develops social and emotional skills for life effectiveness.
 - **Parent & Family Support:** Parents and significant adults are supported in their efforts to help their child succeed.
- Eastside Pathways is the backbone organization for the Bellevue initiative, and structured to align the efforts of partner organizations drive collective impact. In particular, as the backbone organization, EP works to keep a minimum of staff and focus the majority of work from a community volunteer base. The model's effectiveness relies upon partner organization capacity and willingness to step up and lead the work, since the backbone is intentionally small and lean. It is a priority for the backbone not to compete with partners for funding.
- Eastside Pathways' first project as a partnership is the Campaign for Grade-Level Reading. The goal for this project, which aligns with the Bellevue School District's Strategic Plan, is to have all third graders reading at grade level by 2016. There are three data-driven strategies in this area:

school readiness, summer and extended learning, and attendance; these are organized into collaboratives to accomplish specific tasks.

Special Focus Area

The Diversity Advantage Plan

- The City of Bellevue went through an inclusive two year planning process that resulted in the creation of Bellevue's Diversity Advantage Plan. Gathering information through four open community forums, discussions with community leaders, a review of similar efforts in surrounding municipalities, and research on best practices provided the city the information needed to create the plan. Once drafted, Bellevue's Diversity Advantage Plan was reviewed by the City's boards and commissions and was formally adopted by the City Council in 2014.
- The Diversity Advantage Plan has sixty recommendations in six initiative focus areas: cultural competence, economic development, civic engagement, public safety, education and human services. Cultural competence is the lens through which the city needs to adopt new practices within each of these initiative focus areas.
- No individual or community can achieve their full potential until their basic needs are met. For this reason it is critical that Bellevue's public and non-profit services providers emphasize the importance of providing culturally competent human services that are easily accessible to all.

Recommended Actions for the Human Services Focus Area

1. Support the establishment of a year-round homeless shelter on the Eastside.
2. Translate materials on human services resources and referral programs available in Bellevue into the most commonly spoken languages where need exists.
3. Assist non-profit human services agencies to provide culturally competent care and support to Bellevue residents of all ages, abilities, and ethnic backgrounds.
4. Engage the Eastside Human Services Forum in regional discussions of diversity in human services.

5. Promote bicultural and bi-lingual programs that help individuals access public and nonprofit human services systems, such as the Cultural Navigator Program.
6. Support human service organizations in providing cultural competence training for their staff.
7. Recruit diverse community volunteers to support programs and services that meet human service needs in Bellevue.

Community Goals and Specific Populations

Goal #1: Food to Eat and a Roof Over Head

Key Trends

- The percentage of students receiving free and reduced-cost lunch can also help measure community food security. According to Bellevue School District, the total percentage of students qualifying for free and reduced price lunch assistance has decreased to 19% as of October 2014. This compares to 21.2% in October 2013.
- Local emergency financial assistance providers, like the Salvation Army, Catholic Community Services, Solid Ground and Hopelink, reported that they provided services to 1,355 people in Bellevue in 2014, largely through one-time rental or mortgage assistance to avoid eviction or foreclosure. They also aided with utility bills, car repairs, prescription drug costs and food vouchers.
- About 34% of renters and 29% of homeowners in Bellevue are cost burdened, paying more than 30% of their household income for housing. This indicates a cost of housing that is not in proportion with what people earn, significantly impacting people's ability to maintain a stable housing situation.
- In 2015, the One Night Count of homeless found 134 unsheltered individuals in Urban East King County (including portions of Bellevue, Kirkland and Redmond). Compared to the 178 individuals counted in 2014, this represents a 33% decrease which could, in part, be attributed to the fact that

- winter shelters for men, women, and families were open that night on the Eastside.
- As of July 30, 2015, there were 54 families in East King County staying in places not meant for human habitation and awaiting referral to emergency shelter. An additional 16 families were in emergency shelter awaiting a longer term housing referral. Included in this total were 15 Bellevue families staying in places not meant for human habitation and awaiting referral to emergency shelter, and 5 families currently in emergency shelter awaiting a longer term housing referral.

Gaps Include

- Emergency financial assistance for basic needs, such as rent, food, mortgage or utilities assistance.
- Year-round emergency shelter for homeless individuals and families, with expanded nightly shelter during the winter months.
- Affordable housing for low and moderate income individuals and families, including those leaving homeless shelters or housing programs.

Implications for Action

- The lack of affordable housing continues to be perceived by residents as the top community problem in Bellevue. Housing prices continue to rise and this trend is likely to continue in the future.
- Rising housing prices means single family homes in Bellevue have in most cases become out of reach for households earning the median wage. Little relief is found in the rental market as rental rates are also continuing to increase.
- There continues to be a significant need for housing affordable for moderate-income households (also termed workforce housing) on the Eastside as well as housing for low-income (30% of median income or below). While efforts are currently underway for dedicated locations for the Eastside Winter Shelters for men, women, and families, this will take several years to implement and, in the interim, finding suitable sites for the shelters will continue to be a challenge.

- The impact of the system changes occurring through All Home (formerly the King County Committee to End Homelessness) are still unknown. With coordinated entry systems now required by the federal government for all populations (families, single adults, and youth/young adults), it is possible that Bellevue and Eastside residents will no longer be served by Eastside programs. In addition, the results of rapid-rehousing and diversion programs have yet to be determined whether these are successful in preventing people from becoming homeless or serving them quickly once they do.
- The need for food assistance has not decreased significantly since the recession ended and will likely continue in the future.

Goal #2: Supportive Relationships within Families, Neighborhoods and Communities

Key Trends

- Social support for individuals and families is especially important during hard economic times. In a survey conducted countywide in 2011 for Communities Count: Social and Health Indicators Across King County, people with incomes of \$75,000 or more reported higher levels of support than people with lower incomes, as did people who were White, and those who lived as a married or unmarried couple rather than as a single person. Single parents may also have more need for support. In the 2015 Bellevue phone/online survey, 17% of respondents reported that stress, anxiety and depression was a major or moderate problem in their households, about the same as in 2013. Sixteen percent of respondents to the 2015 survey rated the need for parent or caregiver support as a major or moderate household need, a significant increase compared to 2013.
- Research has shown how important quality early learning is for young children to succeed in school and in life. Programs that support parents, such as Healthy Start and Parent Child Home Program, both evidence based home visiting programs, and groups for family, friends and neighbors who are

watching young children in their homes while their parents work, are important resources, especially for some families who are new to this country and culture.

- The Wrap-Around Services Program, a collaboration of the Bellevue School District, the City of Bellevue and United Way of King County, is designed to provide eleven objectives for students, their families and the surrounding school community. Wrap-Around Services is currently working with the District's Family Connection Centers to provide partnerships, collaboration and human/community related services.
- There are many indications that requests for information about resources continue to be in high demand in the county and in Bellevue. In King County between 2013-2014 the number of calls for assistance increased slightly by 3,700 calls at the Crisis Clinic, the designated Washington Information Network agency for 2-1-1, the Community Information Line. In 2014, 90% of Bellevue 2-1-1 Community Information Line callers who disclosed their incomes lived below the poverty level. The biggest change from 2012 to 2014 is related to calls for housing: in 2014 calls for permanent housing jumped to 440, a 74% increase compared to 2014. During the first six months of 2015, staff at the City of Bellevue's Crossroads Shopping Center Mini City Hall received 20,133 contacts from consumers requesting resource information, with about 51% related to human service needs. This is on pace to meet or exceed 2014 with 25,139 contacts.
- Statewide client demand for low-cost legal services has increased and that trend is reflected locally. Eastside Legal Assistance Program reports they have seen a large increase in requests for legal services. More people are seeking help with evictions and foreclosures, family law (including domestic violence), and credit card and debt issues. There is a shortage of volunteer attorneys to help clients beyond a forty five minute, free consultation. Another service in high demand is help with immigration issues. The King County Bar Association reports the same trends, adding that many of their clients face barriers such as lan-

guage, mental health, disability, and financial.

Gaps Include

- Support for parents and caregivers who want to assist in their children's development, from birth through college or career, particularly people new to this culture and language, including parenting education and home visiting programs.
- Support for caregivers of frail older adults and people with disabilities.
- Adequate funding for the 2-1-1 Community Information Line to maintain services especially in the face of increasing community needs and information in other languages than English to meet the demands of a growing diverse population.
- Low-cost legal services.

Implications for Action

- Many Bellevue families need social support for raising their children, caring for aging or disabled loved ones, or a combination of the three. Family, friends and neighbors will be even more important components in caregiving plans because funding is often limited for many formal services, such as chore services and after school care, or some families may not meet eligibility criteria.
- The need for information about resources provided in languages other than English continues to grow as the Puget Sound Region and East King County become more diverse. Human service providers, local government and the business community will need to work together to meet this need in the community.
- Many residents still do not have easy access to computers and rely on the phone or print media. Multi-modal forms of dispensing information to the Bellevue community are needed. The Crisis Clinic's 2-1-1 Community Information Line is one way to help fill this critical information gap. However, funding for its operation needs to continue. Another way is to partner with non-profit agencies, cities and faith communities to include information about resources

through printed media, public TV access, and through neighbors sharing information with neighbors.

- Low-cost or free civil legal services are a growing need for many residents especially for services for direct representation, especially for survivors of domestic violence, immigration issues, landlord-tenant issues and credit counseling.

Goal #3: A Safe Haven from All Forms of Violence and Abuse

Key Trends

- Only a small percentage of survivors of personal violence access formal services, according to national and local data. Survivors who do not speak English, have limited economic means, who are elderly or who have a disability are even less likely or able to seek support services. Local providers continue to report an increase in the number of limited-English speaking clients. The Bellevue Police Department's Domestic Violence Victim Advocate averaged a case-load of 21-22 misdemeanor cases a month between 2012 and 2014. Bellevue Police reports of domestic violence spiked to 1,199, a 22% increase over 2013. These numbers reflect calls in which domestic violence was indicated but not necessarily assaults.
- Reported sexual assault incidents show some decline nationally and locally; however, in a recent state study 85% of victims did not report their assaults to law enforcement. Long term effects of sexual assault and rape include mental health issues, substance abuse and suicide. Harborview Crisis Response Center and King County Sexual Assault Resource Center provide a wide range of services to survivors of sexual assault, including counseling, legal advocacy and referrals to other services. Community education about the identification and prevention of sexual assault is an important component of their work.
- Providers of services for survivors of both sexual assault and family violence also report that more clients are in need of basic needs when they seek help. Safe housing is one such need; national statistics indicate that domestic violence is the number one

cause of homelessness for women. There are a limited number of shelter beds in all parts of the County, but LifeWire (previously known as the Eastside Domestic Violence Program) is the only agency in East King County offering a confidential shelter. Overall, for every family they have the capacity to serve in emergency housing, 19 are turned away.

- In mid-2015, the State implemented an intervention program which is an alternative investigation process for less severe cases of child abuse and neglect. It estimated that about 70% of the accepted referrals to the King East Office of the Department of Social and Health Services will be referred to this program, Family Assessment Response.
- National experts believe that older adult abuse, which includes physical and sexual abuse, neglect and exploitation, is greatly underreported; it is estimated that for every case reported, about five go unreported. Financial exploitation is the most frequently reported category of adult abuse in Washington State. Bellevue Police typically receive 80-100 reports of older adult abuse annually though in 2014 there were only 44 reports; in King County as a whole, there are about 4,000 annually.

Gaps Include (for both survivors of family violence and sexual assault)

- Low-cost legal services including victim advocacy.
- Transitional and low-cost permanent housing.
- Low-cost mental health counseling including counseling for children affected by domestic violence.
- Culturally and linguistically appropriate services.
- Accessible community education about sexual assault and family violence.

Implications for Action

- Service trends and demographic changes in Bellevue indicate that the need for culturally relevant and linguistically appropriate services for survivors continues to grow.

Appropriate services are needed to keep up with the demand.

- Survivors of sexual abuse and family violence often have multiple needs including treatment for substance abuse, parental support and childcare, legal aid, and transitional and permanent housing. The high cost of housing makes it especially difficult for victims of violence who want to remain in the community to maintain both their jobs and systems of support. More shelter beds as well as more permanent housing options are needed.
- It is critical to support community education about family violence, sexual assault, rape and child sexual abuse, as decreased staff levels at many agencies may make it harder for survivors to find and get help.
- Several ongoing areas of concern to be monitored include Internet safety, on-line victimization of vulnerable youth, the potential needs of partners of returning service members, and exploited children and adults who are used for sex trafficking.

Goal #4: Health Care to be as Physically and Mentally Fit as Possible

Key Trends

- Health care reform under the Affordable Care Act (ACA) beginning in 2014 provides the uninsured adult population aged 19-64 opportunities to enroll in expanded Medicaid or through the Washington Health Plan Exchange, depending on their incomes.
- Children will continue to be eligible for the State Apple Health for Kids Program; those up to 200% of the federal poverty level will get insurance at no cost; those between 200-300% will be eligible for low-cost insurance. Children from undocumented households will also be covered.
- In the East Region of King County, between 2006-2010 6% of residents report that they could not take care of their medical needs due to cost. In Bellevue between 2006-2010, on average, 8% of adult residents could not take care of their medical needs due to cost.
- National and countywide data indicates that disparities exist for health and access to

healthcare and insurance for people of color. For example, in King County, African American infant mortality rates are 6.6 per 100,000 compared to 3.6 for Whites. Low economic status and high rates of mental health problems are also linked.

- Eastside health care providers report serving increased numbers of patients with no insurance, many due to recent job loss, and more patients for who English is not their first language.
- In 2015, 35% of Bellevue phone/online survey respondents rated lack of affordable medical insurance as a major/moderate community problem, a statistically significant decrease compared to 2013 but still the sixth highest rated problem. In the consumer survey, 29% stated that not being able to pay for doctor bills was a major/moderate problem, compared to 52% in 2013.
- Substance abuse, particularly use of heroin, is on the rise in Washington State and King County. Providers of services to both youth and adults in East King County report this trend, as well as more multi-problem clients who have both addictions and mental health problems.
- The Crisis Clinic 24-Hour Crisis Line responded to 8,800 calls from Bellevue residents in 2014, a 22% increase compared to 2012.

Gaps Include

- Accessible and low-cost health care and treatment services for under-insured or uninsured people, especially dental care and mental health services. This gap should be addressed for a large portion of the population due to Health Care Reform, but not for undocumented adults.
- Affordable prescription drugs, hearing aids, and eye care for low-income people, even for those who have insurance because these needs may not be covered adequately if at all.
- Health services and resources provided in culturally appropriate and linguistically competent ways.
- Support for children, youth and adults who are experiencing frequent mental distress

due to lack of income, social isolation, or Adverse Childhood Experiences.

Implications for Action

- With the implementation of the Affordable Care Act expansion of Medicaid and new Health Care Exchange, there is great potential for residents to gain improved health and well-being as more people have health insurance
 - Funding cuts still may impact access to mental health services, even though now health insurance plans are required to provide these services. For some people, there may continue to be gaps in their mental health coverage to fit their needs.
 - The increase of immigrants and people who are English Language Learners in the community requires that providers are able to offer culturally competent health care in order to meet the needs of their client base. Becoming a culturally competent service provider can involve staff training, the provision of interpreter services and translated materials, and restructuring programming to better serve a culturally diverse client population. These services are critical to help address the health disparities that exist in many communities.
 - Substance abuse among youth and adults is on the rise. Continued community education about the need and the causes, such as early exposure to Adverse Childhood Experiences and access to sufficient treatment are needed.
- higher education levels are still struggling to make ends meet.
 - In the 2015 phone/online survey, 15% of Bellevue residents ranked “not being able to find work that supports yourself and your family” as a major/moderate household problem, similar to the percentage who rated it as such in 2013.
 - In King County initial claims for unemployment insurance are steadily decreasing but those who have exhausted their benefits (called “exhaustees”) are increasing. Washington State data shows a similar trend.
 - While Washington State’s minimum wage in 2015 at \$9.47/hour is the highest in the country, it is not a living wage. An adult making the minimum wage and supporting two children is under the federal poverty level (FPL), \$20,090 for a family of three in 2015. It is estimated that for a single adult with a school aged child and a toddler, a living wage for King County is \$34.46 an hour (\$71,679 annually).
 - Childcare availability, affordability and quality continue to be a concern for many working parents/caregivers, especially for lower-wage workers. Childcare in East King County is more expensive than in other parts of the County, and can cost between \$24,492 and \$32,396 a year for an infant and a pre-school child. In addition to licensed childcare programs, an increasing number of families, many from immigrant and refugee communities, rely on family, friends and neighbors to care for their children. In 2011 the State Department of Early Learning rolled out Early Achievers, a voluntary, no-cost program to increase the skills of early learning professionals. In 2015, the program became part of the Early Start Act, and will become mandatory by August 1, 2016. Additional funds were allocated for technical assistance and training for providers to participate in the program, and organizations like Child Care Resources provide this support.
 - Access to employment and training programs are critical in order to assist unemployed residents in increasing their skills to find higher paying jobs or to transition to jobs that are currently available in the marketplace. Local colleges, community-based

Goal #5: Education and Job Skills to Lead an Independent Life

Key Trends

- King County and Bellevue residents are well educated for today’s economy. 46% of King County and 62% of Bellevue residents hold a bachelor’s degree or higher and almost 98% of King County and 98% of Bellevue residents have graduated from high school. However, even though Washington State’s unemployment rate in June 2015 at 5.3% was greatly reduced compared to 8.3% two years ago, data shows that recovery has been uneven. Some residents despite their

agencies and government programs provide English-as-a-Second-Language classes, job skills and training classes, and job placement services in Bellevue. Many of these organizations report a bigger demand especially for increased skills to get higher paying jobs and more difficulty finding jobs for people with limited English language skills.

- Bellevue residents increasingly report that finding public transportation is a problem, which includes getting to work as well as accessing human services and social support. More than one-third of 2015 Bellevue phone/online survey respondents rated “inadequate public transportation” as a major or moderate problem in their community; in the same survey, this issue was the top household problem in Bellevue in 2009, 2011, 2013 and 2015. In 2015, King County Metro rolled out the Orca LIFT reduced fare program allowing people with low-incomes to purchase a card and load funds on it for use on King and Kitsap County buses, Sound Transit Link Light Rail, the Seattle Street Car and King County Water Taxi.

Gaps Include

- Jobs that pay a living wage with benefits.
- Affordable, quality childcare for low-income families.
- Affordable and accessible job training opportunities teaching “new economy” job skills and ESL classes.
- Affordable and accessible transportation options especially for public transportation.

Implications for Action

- The decrease in middle-income job opportunities makes it harder for people at lower incomes to access better job opportunities. There are more low-income job opportunities, but along with these come financial instability, dependence on public supports that are dwindling due to budget cuts and less of a chance to obtain additional training to increase skills to find a better job. A living wage for a family living in Bellevue is higher than in other parts of King County partly due to high childcare and housing costs.

- Bellevue residents have a high level of education, however, there are not many vacancies in some of the growing sectors like hospitality that pay a living wage.
- Barriers to employment such as lack of affordable and flexible childcare, limited English language skills, the absence of coordinated transportation and lack of training to secure higher wage jobs are key issues that must be addressed to help people improve their economic conditions and the quality of their lives.

Specific Populations

Older Adults

Key Trends

- By 2030, more than one of every five Washingtonians will be an older adult. People age 65 and older represent 13.9% of Bellevue’s population. People 65-74 years of age comprise the largest portion of this population (51.3%), followed by those 75-84 years of age (33.1%) and those 85 years of age and older (15.6%). This last age cohort is the fastest growing segment.
- People are living longer, with life expectancy in King County at 77.8 years of age. An AARP study found that most older adults will one day need Long Term Care Services and Supports but about one third of people turning age 65 will not be able to afford them and will need to turn to Medicaid for assistance. Many adults say they wish to retire and live at home, and some will likely use an increasingly diverse range of services to maintain their independence, including adult day programs, home modifications and assistive technologies. Fewer people live in nursing homes which are the most expensive option, costing \$100,000 or more a year in Washington State; consequently, the overall number of beds, residents and occupancy rate have all remained static or declined in the last ten years. There is increasing demand for in-home services and assisted living residences. As the number of “older elderly” age 75+ grows, more of these housing options will be in demand.

- There are an estimated 600,000 family caregivers in Washington State who provide over 600 million hours of care annually, valued at over \$5.4 billion. Yet, many of these caregivers experience health and mental health issues themselves and lose income due to their caring for their family members. Especially with the estimated dramatic increase in the number of older adults who will develop Alzheimer's Disease or dementia in the next 30 years, respite care and other supports for family caregivers are not keeping up with the growing need.
- Medicare, a health insurance program for people 65 and older and for people under 65 with certain disabilities, does not cover dental or eye care. High costs of these services may prevent many older adults from accessing preventative care and treatment. An ongoing concern is that low Medicare reimbursement rates are beginning to limit the number of older adults some doctors will serve. Another concern is that certain groups of older adults are at risk for depression and suicide, such as those who live alone. In King County over a five year period, 20% of suicides were committed by people over age 60 that make up 15% of the population during that period.
- The cultural diversity of Bellevue's population as a whole is also apparent amongst its older adult residents though it is a smaller proportion than children. Asian residents who are 65 and older are about 12.7% of the population in Bellevue, the new highest after White, which is 83.3%. Over 19% of older adult Bellevue residents speak a language other than English at home, and 13.3% speak English less than "very well".
- Fewer than half of today's workers have pension coverage on their jobs that pay a defined benefit. One of the outcomes is that the number of people age 65 and older in the workforce is increasing as they stay in their jobs longer, many by necessity. In 1985 10.5% of people aged 65 and older were in the labor market; it is projected that by 2022, there will be about 31.9%.
- Older Bellevue residents, people 65 years and older, are less likely to have a vehicle (8%) than Bellevue adults 35-64 years old (4%). Volunteer programs that provide rides for older adults to doctor appointments and for other basic needs have waiting lists. In response to the growing need for better transportation options for older adults, people with disabilities and low-income people on the Eastside, a group of government and non-profit agencies created the Eastside Easy Rider Collaborative, and are working to improve access to public transportation and other transit options.
- The need for affordable housing for the growing older adult population in King County continues to surpass the supply. It is estimated that more than 9,000 additional units of affordable senior housing units are needed per year until 2025 when the percentage of people older than 65 years of age will be 23% of the population. Reports are increasing of more older adults represented among those who are homeless in shelters or living in their cars. In Bellevue there are only 307 affordable units for low-income older adults. About 61% of renters who are older adults paid 30% or more on rent compared to 37% of renters in Bellevue overall.

Gaps Include

- Low-cost dental, eye care and hearing aids for low-income older adults.
- Job training and job placement for those who need to or want to work after retirement.
- Access to accessible transportation options.
- Support for family caregivers, including grandparents raising grandchildren.
- Mental health services that are specifically designed to address aging issues.
- Affordable and accessible housing with services, including long term care services and supports.

Implications for Action

- The effects of the prolonged economic downturn are impacting older adults. More older adults are delaying their retirement and working beyond the traditional retirement age of 65, primarily because they can't afford to retire. More support for older adults to find employment may be needed, such as computer training for new types of jobs. Volunteer transportation and

Senior Information and Assistance provided through State funding for the Senior Citizens Services Act are critically needed.

- The demand for services for older adults from other countries newly settled here will continue to increase. These services include English and citizenship classes, culturally sensitive healthcare, and activities that will utilize their many gifts and talents.
- Coordinated transportation for older adults in the community is likely to become a major focus. Modes of transportation other than single-occupancy vehicles such as shuttles and buses will be increasingly important. Many older adults will give up owning their own vehicles and will need ways to get around to their jobs, to medical appointments, and to other activities essential to daily life.
- Providing support for family caregivers is critical. This is a wise economic investment given the enormous cost-savings to the Medicare, Medicaid and long-term care systems in addition to the positive impact on the disabled and older adult's quality of life. Providing information and resources such as affordable respite care and support groups can help to reduce their stress.
- A cooperative effort is needed to look at new housing options for older adults to address the huge shortfall of affordable housing that is evident now, and will peak by 2025.
- Dental, hearing aids, and vision services, which are not covered by Medicare, will continue to be more in demand from older adults, and put increased pressure on community-based agencies to provide. Access to mental health counseling remains a critical gap for older adults.
- Activities and community planning that build upon the tremendous knowledge and abilities of older adults is important to keep this population socially and civically engaged.

People with Disabilities

Key Trends

- Approximately 8% of Bellevue's population age 5 and older (10,800) have at least one disability, including employment-related, mental, physical and sensory according to the 2010-2012 ACS; ambulatory disabilities are the most frequently reported. Older adults are the age group most likely to have a disability.
- In Washington State, the majority of people with developmental disabilities (97%) live in the community, most with their families. A national report on the cost of rental housing affordability in the U.S. found that for people with disabilities relying only on their Supplemental Security Income, market rate housing is not an option due to cost. For those who can't live independently, supported living services that offer instruction and support to persons who live in their own homes in the community are available. Of the 11,574 clients of the King County Division of Developmental Disabilities, the vast majority live in their parents homes (6,215). However, more subsidized housing options for people with developmental disabilities are needed as parents age and their adult children look for more independent living.
- Medicaid waivers, agreements between the State and the Federal agency responsible for Medicaid, provide support services for people with intellectual/developmental disabilities and their families; in King County in August 2015, only 56% age 21 years and older of those eligible for waivers were able to receive them due to lack of State funding.
- The 2014-2017 King County Plan for Developmental Disabilities Services identified the need for culturally competent services and outreach for the increasing number of people from diverse ethnic and cultural communities and with limited English language skills. This need was also identified by local providers for both adults and children with intellectual/developmental disabilities and their families.
- Services for children birth to three with developmental delays or disabilities are underfunded at a time when more children are being identified with these needs. Kindering Center reports that between 2013 and 2014 their monthly enrollment went up 16% for infants and toddlers with disabilities or delays. At the same time, funding sources such as Medicaid and federal

dollars for children with special health care needs continues to decrease. Early identification and intervention has shown to be effective; King County data indicates that in 2014 about a third of the children who exited Early Intervention services countywide did not need special education services.

- Transition services for youth with intellectual/developmental disabilities leaving high school increases their success in the community, including finding and retaining employment. Local non-profits working with the Bellevue School District have provided such transition programs with good outcomes, and have begun working with students even earlier than high school to help them and their families understand the system and access services. However, more such services will be needed in the future.
- Even though the unemployment rate in the State is dropping, it is still challenging for people with intellectual/developmental disabilities to find jobs. Despite this challenge, AtWork, a local supported employment agency, was able to work with employers to create jobs for this population and have increased job placements from 50 in 2013 to almost 70 in 2015.

Gaps Include

- Limited housing opportunities for people with disabilities who prefer to live independently.
 - Respite care for aging parents whose adult children with disabilities still live at home.
 - Services for caregivers of children with disabilities, including childcare, recreational and after-school programs and caregivers of adults with disabilities, including respite.
 - Culturally and linguistically appropriate programs and outreach to families with children with disabilities who come from diverse cultural and for whom English is not their first language.
 - Coordinated, accessible transportation options for people with disabilities.
 - Funds for early identification of children with disabilities.
 - Lack of available paid and volunteer positions for people with intellectual/developmental disabilities.
- Funding for services to people with all types of disabilities continues to lag behind the growth of this population. The result is that there are wait lists for certain services such as housing and family support from King County. And for those programs in which waiting lists are not allowed, agencies are strapped to find additional resources to fill the funding gap. This trend is predicted to continue over the next several years due in part to the higher life expectancy of the aging disabled population, the increase of referrals of children with disabilities, and the continued development of medical procedures that now save the lives of those who in the past may not have survived trauma or complications at birth.
 - Lack of affordable housing is as much of a problem for people with disabilities as for the rest of the population, if not greater. The need is growing faster than housing stock is produced. It is especially critical for people with disabilities to find housing in familiar neighborhood settings, near support systems and convenient amenities, in order to maintain their independence to whatever extent they are able.
 - Another growing need in the community is for more paid employment and volunteer opportunities for people with developmental disabilities.
 - Early intervention services for children birth to three with disabilities are underfunded. Research clearly shows that early intervention saves costs later; for some children whose special needs are identified when they are older, critical time is lost. All sectors of the community-medical, business, education, public and non-profit-need to increase their efforts to promote early screening and make it easier for parents and caregivers to find help.
 - Childcare for children with special needs continues to be in very short supply in the community, as are programs appropriate for children age 12 and older. Community-based organizations already providing such services to typically developing children could, with training and support, help to fill this gap.

Implications for Action

- Inclusion of people with all disabilities in all communities needs to be a priority. Research has shown that people with disabilities who experience inclusion early in their lives are more likely to live in and actively contribute to their community as adults.

Refugees and Immigrants

Key Trends

- In 2014, Washington ranked 11th in the U.S., resettling 2,483 refugee arrivals, representing about 3.5% of total new refugee arrivals to the U.S. in 2014. King County resettled approximately 66% of all refugee arrivals. The biggest group continued to be from Iraq, Somalia and Burma. The largest group of immigrants based on the 2013 Census data in Bellevue are Hispanic/Latino, Asians including Chinese, Korean, Japanese, and people from East Indian countries.
- As of October 2015, 87 languages and dialects were spoken by Bellevue School District students. Local organizations and colleges offer courses for English Language Learners to help adult refugees and immigrants learn English especially to increase their access to jobs. Agencies report that language barriers are the biggest issue for newcomers from other countries to find work.
- In 2011-2013 Bellevue's population accounts for 42% minorities. Specifically Bellevue's Asian and Hispanic/Latino populations have been the fastest growing populations.
- In 2014, the City of Bellevue and its Council adopted a Diversity Advantage Plan. The plan's goal was to research and adopt best practices and engage the community to unlock the positive power of diversity in Bellevue. In addition, the plan is for the City of Bellevue to enact and uphold equitable policies and practices, train and hire culturally competent staff and provide programs that are responsive and accessible to all.
- The City, in addition to local coalitions, has been working on ways to make information about resources more available to non-English speaking residents. Resource guides and websites in multiple languages and bilingual staff answering phone information lines all aid non-English speakers in identifying and accessing much needed resources.
- Access to health care, including mental health and dental care, has become increasingly difficult for many adult immigrants, even those who are here legally. Some state health insurance programs have been eliminated or reduced that were once accessible to this population. At Eastgate Public Health Clinic, staff reported a decline in the number of interpreted visits, not due to lack of need, but because Public Health programs like immunizations and Maternity Support Services have been cut. In 2014, the Public Health services and two of the primary care sites partnered with Neighborcare and as a result, retained only WIC, Maternity Support Services and Dental services. Other needs that are frequently mentioned are legal assistance for landlord-tenant and immigration issues, and services for survivors of domestic violence.

Gaps Include

- ESL and job training programs for non-English speaking residents.
- Free and low-cost legal assistance for immigration and family law issues provided in languages other than English.
- Low-cost health and dental care for immigrants who do not have health insurance.
- Information about resources in languages other than English.
- Support for refugee and immigrant parents with children of all ages.

Implications for Action

- The need for more culturally and linguistically competent human services staff grows each year. Throughout the community, there is a need for information to be available in languages other than English, such as that provided through the Cultural Navigator program. Increased needs for employment, health insurance, basic needs and legal assistance continue, amongst immigrants and refugees who have not previously needed to ask for help before.
- Culturally appropriate mental health counseling for recent immigrants or refugees is

in demand. Use of mental health care can be unfamiliar and unacceptable. Providing culturally acceptable care which takes into account cultural background is essential for this demographic.

- Requests for English-as-a-Second-Language classes at all levels for adults are increasing, a result of larger numbers of refugees and immigrants living in Bellevue as well as a greater demand for better language skills to secure jobs. More opportunities for people to learn English, especially those that offer childcare, are needed.
- Non-English speaking parents need assistance helping their children in school. This can include having more bilingual staff, materials for parents translated in their native languages, and events to educate parents about the school system and culture in the U.S. so they can learn skills to advocate for themselves.
- Increased opportunities are needed for people to have cultural events and activities to increase awareness in the community about the richness of these cultures and engage new Americans in meaningful dialogue. There are more ways yet untapped to utilize the strengths and assets that the many immigrant and refugee groups have brought here with them, to enrich and strengthen the community.

School-Aged Children and Youth

Key Trends

- The Bellevue School District continues to be among the highest ranked school districts in the nation. Approximate 1,038 Bellevue households have students that attend school in the Issaquah School District.
- The student body in the Bellevue School District (BSD) is becoming more diverse. In 2014-2015, 42.1% of students were White, compared to 71.4% in 1996. Asian Pacific Islander students comprised 34.4% of the district's student population. In the past sixteen years, the percentage of Hispanic students has almost doubled (11.6%). African American student numbers have remained relatively stable in the past few years (2.7%).
- The Bellevue School District created a

Department of Equity. The department operates with the belief that, "An equitable and excellent school district is one which all students achieve high levels of academic success, regardless of any student's race, ethnicity, culture, country of origin, religion, gender, special needs, sexual orientation, neighborhood, income of parents, or mother tongue. In an equitable and excellent school district, there are no persistent patterns of differences in the academic achievement or treatment of students grouped by race, ethnicity, culture, special needs, and country of origin, religion, gender, sexual orientation, and neighborhood, income of parents or mother tongue. Equity and excellence occur when each and every student is served effectively to achieve high levels."

- Between 2008-2012, the average teen birth rate in King County for females ages 15-17 was 8.1/1,000 births. During the same time period, average teen birth rates in South King County (12.7), and Seattle (7.3) were higher than in East (2.8) or North King County (4.0). The rate in Bellevue is one of the lowest in the county (0.00 births per 1,000 women).
- Suicide is the second leading cause of death among Washington youth ages 15-24 and the third leading cause of death nationally. According to the National Center for Health Statistics, Washington has the 21st highest overall suicide rate in the nation. The Healthy Youth Survey 2014 showed 16% of Bellevue School District youth (8th, 10th and 12th graders) had contemplated suicide in the last 12 months. Further, the mental health of school-aged children and youth is a major concern expressed by teachers and school based counselors. Bellevue mental health providers report challenges in meeting all of the need for mental health and substance abuse treatment.
- Housing for homeless youth continues to be a need throughout King County. The Bellevue School District reports 228 students were eligible to receive services funded by the federal McKinney-Vento Act because they were homeless. In addition, providers who work with homeless youth report the majority have experienced significant

trauma due to physical or sexual abuse, and/or have aged out of the foster care system or have run away from dangerous situations. As a coping mechanism, many of these youth abuse substances and can develop serious addictions. As a response to homeless youth, King County did an update in May 2015, to update the 2013 Comprehensive Plan to Prevent and End Youth and Young Adult Homelessness in King County by 2020.

Gaps Include

- Prevention, early detection and treatment of youth mental health problems, including depression, suicide ideation and anxiety as well as substance abuse.
- Supportive services and programs for all diverse youth include those with disabilities, from other cultures and ethnicities, and Lesbian, Gay, Bisexual, Transgender and Questioning youth.
- Emergency shelter and transitional living programs for homeless youth, including older youth up to age 24.
- Mentor programs, quality after-school programs and other opportunities for positive interaction with adults in the community.

Implications for Action

- Access to programs for children and youth to ensure their health and well-being is even more important as the economy continues improve. Lack of these resources can put children and youth at risk for poor outcomes, and eventually take an economic toll on the community.
- With the growing diversity in Bellevue, there is a need for more culturally sensitive programs and activities for school-aged children and youth and their families who may be coping with adjusting to a new country or to gender-based differences. Efforts such as Eastside Pathways are critical to ensure that all children reach their full potential.
- After school programs that enhance relationships and build community are proven supports for success for children and youth. Building upon and expanding access to current programs in order to reach more

children can prevent many problems down the road.

- There is a gap in the “safety net” for homeless youth and young adults, up to age 24. More low-barrier housing with services and outreach to this at-risk population is needed to help them move on to productive lives. Some have “aged out” of the foster care system; others are employed or going to school, but lack family or community support.

Veterans

Key Trends

- The 2010 American Community Survey estimates that about 127,000 veterans live in King County, about 6.6% of the population, down from 2000, when there were 163,815, or 9.43% of the population. About 117,205 are men and 9,984 are women. This decline is thought to be due to the large number of veterans aged 65 and older and less recruitment. Overall, the number of women in the military has increased, as has the proportion of veterans who are persons of color. It is estimated that almost 30,000 veterans live in East King County, 22.1% of the total in the county, compared to 20% estimated in 2007. In Bellevue, it is estimated that 7,530 people are veterans, roughly the same as in 2011.
- Consistent with national trends, the number of older veterans is increasing in the state and county. Close to two-thirds, 80,000 veterans, living in King County are over the age of 55 with 30,700 between 55 and 64. In Bellevue, the largest group of veterans are age 55-75+ (72%). In contrast, veterans 18-34 years old make up only 7.8%.
- The unemployment rate in King County for post 9/11 vets at its peak in 2009 was 11.3% but decreased to 6.9% in 2014. However, veterans who are women and people of color tend to have higher rates of unemployment.
- Homelessness and lack of affordable housing are major issues for many vets and their families, both nationally and locally. In response, U.S. Department of Veterans Affairs launched the 25 Cities Initiative in

March 2014 to assist communities with high concentrations of homeless vets in intensifying and integrating their efforts to end Veterans homelessness. In the 2015 One Night Count of homeless people in King County, about 9% (288) in overnight shelters identified as veterans, 9% (268) were in transitional housing, and 109 were unsheltered. This is a 15% decrease compared to 2014. It is estimated that 1,334 homeless veterans were homeless in King County in 2015, and of those about 224 of those would find housing without help, leaving about 1,120 veterans needing interventions to achieve permanent housing.

- Nationally, veteran suicides increased by 26% between 2005 and 2007. Despite efforts by the Veterans Administration (VA) to increase access by veterans to mental health services and supports, suicides continue to increase. The VA projects that in 2013, each day 22 veterans will commit suicide up from previous estimates of 18/day. Local agencies also report an increase in veterans who struggle with substance abuse as well as mental health issues.
- While vets from all periods of service have experienced a range of mental health issues from the trauma experienced in combat, Post Traumatic Stress Disorder (PTSD) and Traumatic Brain Injury (TBI) have emerged as two signature injuries of the Iraq and Afghanistan wars. PTSD is a severe reaction to war that includes hyper-alertness, nightmares and depression. It may be triggered by reminders of combat, such as fireworks or television scenes of violence. National data indicates that nearly 20% of vets returning from the war in Iraq and Afghanistan reported a mental health issue such as PTSD or major depression. In King County, it is estimated that as many as 25,000 veterans from all war eras could be affected, and that as many as half of them will not seek treatment.
- In the 2012-2017 King County Veterans and Human Services Levy Service Improvement Plan, additional funds were allocated for veterans families based on research and feedback about existing gaps. More research is being done on best practices to help veterans transition from the military to

civilian life. Surveys have found that over half of veterans believe that the military is lagging behind in helping them with this transition.

- King County has implemented several programs that acknowledge the fact that some veterans return from combat to civilian life face civil legal barriers or become involved in the criminal justice system. These include King County Regional Veterans Courts and the Veterans Legal Assistance Program.
- As more women increase in the military, more services are needed tailored to their specific issues. One area is related to sexual assault. Reports of sexual assault, ranging from unwanted sexual contact, sexual harassment to rape, called Military Sexual Trauma (MST), continue to grow. Data from the VA indicates that 24.3% of women and 1.3% of men had experienced MST.

Gaps Include

- Employment services including job training, education and assistance with re-entry into the job market.
- Mental health services including substance abuse treatment tailored to meet the needs of returning veterans with specific disorders, such as PTSD and physical issues such as TBI; support services for their spouses and children.
- Affordable housing especially for homeless veterans and transportation for veterans to be able to access health and human services.
- Support services for woman veterans who have been sexually traumatized as well as general health care services specific to their needs.
- Supportive services for families of veterans to help with their transition to civilian life.
- Coordination of services including better ways of getting out information about eligibility about vets benefits and other services for vets and their families.
- Services for aging veterans (long term care) and their caregivers.

Implications for Action

- Continued, ongoing partnerships between federal, state and county programs for veterans and human services agencies need to continue to ensure that vets are aware of the benefits for which they are eligible. Training for community based providers on Veteran's Culture and other elements of working with veterans is important so services meet specific veterans' needs. The Veterans and Human Services Levy funding, for example, provides many of these trainings through the Veterans Training Support Center.
- The King County Regional Veterans Initiative (RVI) has provided a great planning focus and continues to have great potential to increase coordination of existing regional services with resulting improved quality of life for Vets and their families; one such effort is the goal to end veteran homelessness in King County by the end of December 2015.

Bellevue Adult Misdemeanant Probation

Key Trends

- The adult offender population impacts all levels of government and communities in multiple ways. There is no organized advocacy working to sustain the public's attention on the needs of this unique population. Identifying this diverse group as a special population with specific needs is a first step in formulating a collaborative plan to work along the entire human services continuum to collectively work toward the shared goal of reducing recidivism.
- Defendants who are guilty of misdemeanor offenses committed in Bellevue are supervised by Bellevue Probation. Typical offenses include: driving under the influence, domestic violence assault, theft, possession of stolen property, driving with a suspended license and various felonies amended to misdemeanors.
- Bellevue Probation is part of the larger regional criminal justice system that deals with adult misdemeanor offenses. Other system components include Bellevue

Police, Bellevue Prosecutor, King County District Court and King County and regional jail providers. Probation represents the ideal place along the continuum where real, meaningful interventions can occur to effectively change the lives of the defendants.

- Bellevue provides adult misdemeanor probation services for approximately 1,000 individuals per year with an average daily population of about 500 supervision cases and 300 administrative cases. Cases by charge type include driving under the influence (40%), domestic violence (29%), theft (16%), assaults/disorderly behavior (10%), and drug offenses (65%) which are spread across all offense types.
- Of the 2015 Probation case load, 65% have chemical dependency issues, 13% have mental health issues, 17% are unlicensed and 19% are unemployed.
- Some of the issues that the Bellevue adult probation misdemeanor offenders experienced in early life (Adverse Childhood Experiences, or ACEs) have contributed to their interaction with the criminal justice system. Mental health issues are increasingly common in the offender population.
- Bellevue Probation adheres to a best practices mandate to assist individuals in meeting the conditions set by the court. Some examples of intervention strategies utilized include: using an empirically validated assessment tool; License Support Program helping an individual who has lost driving privileges; colocation of a Sound Mental Health forensic staff to aid with mental health services; Work Crew to provide community service; Stipulated Order of Continuance Program to divert first time domestic violence offenders to probation; and the Electronic Home Detention Program providing a cost effective alternative to jail.
- Implementing a collective impact approach to services is a key element and vision to support and treat adult misdemeanor offenders. The City of Bellevue supports many human services organizations that provide general services but none targeted for the criminal offender. Bellevue Probation staff meets regularly with criminal justice partners, service providers and the Probation Advisory Board on issues to

address and progress made but does not always result in a common agenda. To effect a meaningful reduction in recidivism requires elevating the needs of this special population to develop additional, effective and collaborative interventions.

Gaps Include

- Funding for entry level programs for domestic violence, mental health, anger management and chemical dependency treatment.
 - Lack of appropriate evaluations.
 - Cognitive restructuring programs.
 - Parenting programs.
 - Educational/vocational programs and job searches.
 - Re-licensing assistance.
 - Funds for basic needs like housing.
 - Interpreters to address the increasing linguistic diversity in Bellevue.
 - Collective impact interventions to develop effective and collaborative interventions.
- recidivism and increasing the offenders' chance of successful re-entry into society.
- With the growing ethnic population in Bellevue, it is not unexpected that the offender population is becoming more diverse. Staff report that about 10% of their clients are English Language Learners and the need for interpreters is increasing.

Implications for Action

- While Bellevue Probation has incorporated many best practices into its program, resources are limited and access for these and other human services is an ongoing issue. Regularly, offenders have a demonstrated need for one or more services, such as substance abuse treatment and housing find they have just enough income to be ineligible for public funding but not enough to pay for these services.
- New research provides support for the use of a collective impact approach in decreasing violence and thus its impact on the criminal justice system. One takes a public health view of the consequences of violence; violence against children, for example, increases the risks of injury, reproductive health problems and poor cognitive development. THRIVES, a program with the Center for Disease Control to prevent violence against children, emphasizes that violence can be preventable if governments, residents and the global community can act together.
- Increased access to subsidized health and human services are key to preventing

WILBURTON-GRAND CONNECTION STUDY

Draft Transportation & Environmental Performance Measures

INTRODUCTION

The purpose of this document is to identify preliminary transportation and environmental performance measures that will be used to compare, contrast, and describe the relative performance of the Wilburton-Grand Connection Study alternatives, including no action.

Qualitative and quantitative performance measures are intended to help determine how well alternatives are performing relative to the desired outcomes identified in the City Council Principles for the Wilburton-Grand Connection Study.

The measures can be applied to rough preliminary alternatives developed during the scoping process, and to finalist alternatives that are carried forward in the Environmental Impact Statement (EIS).

EXAMPLES

Many communities and agencies identify desired outcomes and performance measures to create alternatives and ultimately a plan that best meets their needs. Below are two examples oriented around multimodal transportation and station area land use.

- **Transportation Alternatives, Midtowntransitway.org:**
<https://www.metrotransit.org/Data/Sites/1/media/midtown-corridor/midtown-screening-fact-sheet.pdf>
- **City of Thornton, Colorado, Eastlake at 124th Station Project Area, Land Use Alternatives pp 11-14:**
https://www.cityofthornton.net/government/citydevelopment/planning/Documents/area-plans/Eastlake-STAMP-Chapters/Eastlake_Chapter_3_Land_Use_Alternative.pdf

PRELIMINARY PERFORMANCE MEASURES

The City Council developed 12 guiding principles for the Wilburton – Grand Connection Study to provide consistent direction over the course of the project. These principles effectively identify the City’s intent or desired outcome.

Through the planning process, three alternatives (No Action and two Action Alternatives) will be developed, shared with the public, refined, and evaluated in a Draft EIS. The Draft EIS analysis will help decision makers create a Preferred Alternative.

The EIS is anticipated to address the following topics: Land Use and Economic Activity, Neighborhoods and Populations, Aesthetics, Transportation, Air Quality, Noise, Ecosystems, Water Resources, Energy, Geology and Soils, Environmental Health, and Public Services and Utilities. The EIS will analyze each alternative under each topic. The EIS analysis will be planning level, but will qualitatively and quantitatively evaluate potential positive and adverse natural and built environment effects. The EIS analytic approach can serve as performance measures for the alternatives.

The following chart identifies the Council Principles on the left, and potential performance measures by EIS topic on the right.

Exhibit 1. Bellevue City Council Principles and Potential Performance Measures

Council Principles	Relevant EIS Topic & Potential Measures
1. <u>Grand Vision</u> . Ensure that the vision for the Wilburton project area is extraordinary and fully capitalizes on the special opportunities created by the area's outstanding location and access.	<p>Measuring how well alternatives meet this all-encompassing principle will evolve as the vision and alternatives evolve. Each alternative may have differing emphases on land use intensity/urban design, job and housing mix, infrastructure investments, natural systems enhancements, and other features. At this time, potential topics and measures could include:</p> <p>Transportation:</p> <ul style="list-style-type: none"> See Principles #7 & #9: Optimal relationship of land use and transportation interface, including connectivity, access to services, and multimodal system performance. <p>Land Use/Aesthetics:</p> <ul style="list-style-type: none"> Character, intensity, and extent of transit-oriented, mixed-use development. See #7: Density of community gathering spaces and amount and location of open spaces and parks. <p>Economic Activity:</p> <ul style="list-style-type: none"> See #10: Diversity and number of jobs that support the Economic Development Strategic Plan. <p>Neighborhoods and Population:</p> <ul style="list-style-type: none"> See #8: Housing quantity and diversity in housing forms and affordability.
2. <u>Special Niche</u> . Create alternatives and explore innovations that will provide Wilburton an economic niche that complements and adds to the vitality of Bellevue and the Eastside.	<p>The pending market analysis will help identify Wilburton's economic niche. Potential measures could include those identified under #4 and #10.</p>
3. <u>Grand Connection</u> . Ensure that the vision for the Grand Connection encompasses the entire corridor from the Meydenbauer Bay waterfront to the Eastside Rail Corridor, and that it positions the corridor to serve as both a memorable and transformative public space as well as a means of non-motorized transportation.	<p>Transportation:</p> <ul style="list-style-type: none"> Increase in walk and bike trips. Improvement in pedestrian and bicycle multimodal level of service (MMLOS) measures. See #9. <p>Aesthetics/Public Services:</p> <ul style="list-style-type: none"> See #7. Increase in usable public space; support for neighborhood goals identified in the park and recreation system plan, including a neighborhood park; and increased opportunities for skyline and water views.

Council Principles	Relevant EIS Topic & Potential Measures
<p>4. <u>Neighborhood Identity.</u> Develop placemaking and urban design strategies that create a strong and unique neighborhood identity for Wilburton.</p>	<p>The ULI Study identified four unique districts: health and wellness subarea, technology incubator district, transit and trail-oriented district, and South of Fourth District. For these or other districts that may be identified (e.g. in the pending market study) the following could be measured:</p> <p>Neighborhoods and Population:</p> <ul style="list-style-type: none"> • Capacity for housing and densities that support the light rail station. <p>Economic Activity:</p> <ul style="list-style-type: none"> • Opportunities to leverage jobs in medical and technology sectors, as well as commercial uses, as part of mixed-use development. <p>Public Services:</p> <ul style="list-style-type: none"> • Benefits in relationship to cost of infrastructure or public realm investments. (Scope includes the development of a benefit-cost analysis for finalist alternatives.) <p>Aesthetics:</p> <ul style="list-style-type: none"> • See #7: Density of community gathering spaces, central open spaces, and parks.
<p>5. <u>Emerging Opportunities.</u> Address changes and opportunities that have emerged since the last major update of the land use plan for Wilburton.</p>	<p>Transportation:</p> <ul style="list-style-type: none"> • Addressing the eastern terminus of the Grand Connection and addressing station area planning are key emerging opportunities. See #3 and #6. <p>Land Use:</p> <ul style="list-style-type: none"> • The amount and location of Transit-Oriented Development (TOD) around the Wilburton station. <p>Economic Activity:</p> <ul style="list-style-type: none"> • Measures to address emerging economic opportunities will be developed following review of the pending market study. See #4 and #10. <p>Neighborhoods and Population:</p> <ul style="list-style-type: none"> • See #8: Housing quantity and diversity both in housing form and affordability. <p>Ecosystems/ Water Resources/ Environmental Health</p> <ul style="list-style-type: none"> • The Existing Conditions Report identifies the potential for adding to the area's tree canopy and reducing impervious areas, as well as environmental restoration opportunities with Sturtevant Creek daylighting, and public access to Lake Bellevue. See #9. <p>Aesthetics/Public Services:</p> <ul style="list-style-type: none"> • See #7. Bellevue's Parks, Recreation, and Open Space Plan (2016) identifies the need for a neighborhood park.

Council Principles	Relevant EIS Topic & Potential Measures
<p>6. <u>Integrated Station Area Planning.</u> Integrate station area planning for the Wilburton/Hospital light rail station with the balance of the Wilburton Plan, while utilizing this station as an opportunity to establish connectivity between the two areas bisected by NE 8th Street.</p>	<p>Based on precedents and alternatives under development, identify essential features for a successful station area. Identify desired mix of TOD (see #5) and multimodal access (see #9).</p> <p>Consider connectivity measures per #7.</p>
<p>7. <u>Community Benefit.</u> Create community benefit and value for the surrounding neighborhoods of Downtown, Bel-Red, and the greater subarea of Wilburton. Benefit and value should be derived from connectivity, access to services, and improved urban amenities that serve all residents and businesses.</p>	<p>Transportation</p> <ul style="list-style-type: none"> • Connectivity measure from King County Metro non-motorized connectivity tool (output includes a connectivity index and map). • Access to services measure: apply King County Metro non-motorized connectivity tool at up to three other amenities (parks, schools etc.). <p>Economic Activity</p> <ul style="list-style-type: none"> • Urban amenities measure could address potential future density of stores, parks, etc. Could be similar to definition of community gathering spaces in Comprehensive Plan Map LU-3. <p>Aesthetics/Public Services</p> <ul style="list-style-type: none"> • New open spaces and parks: City Level of Service measure, including percent of future population with access to outdoor activities and percent of households within 1/3 mile of a park or trail access point. City Parks Plan gap analysis shows lack of a neighborhood park. • Amount of investment in infrastructure that supports physical activity (e.g. community recreation facilities, walking path/trails/sidewalks, playground equipment, parks/green spaces).
<p>8. <u>Affordable Housing Opportunities.</u> Consider opportunities for land use changes in the area to provide for affordable housing,</p>	<p>Neighborhoods and Population:</p> <ul style="list-style-type: none"> • Housing quantity and diversity of housing forms. • Number of affordable units (at x% AMI) incentivized.
<p>9. <u>Impact Mitigation.</u> Ensure sensitivity to potential adverse impacts of change on nearby residential neighborhoods, and provide for a graceful transition between new development and established neighborhoods.</p>	<p>Transportation</p> <p>MMLOS performance measures and standards based on City's new MMLOS approach:</p> <ul style="list-style-type: none"> ○ Pedestrian: <ul style="list-style-type: none"> ○ Sidewalk and buffer width. ○ Arterial crossing frequency. ○ Signalized intersection treatment. ○ Bicycle: <ul style="list-style-type: none"> ○ Corridor level of traffic stress considering speed, auto volume, and facility type.

Council Principles	Relevant EIS Topic & Potential Measures
	<ul style="list-style-type: none"> ○ Intersection standards considering type of bike signal, crossing treatment, and intersection treatment. ○ Transit: <ul style="list-style-type: none"> ○ Stop/station standards considering weather protection, seating, transit landing zone and wayfinding. ○ Speed standards for frequent transit connections between key activity centers. ○ Auto: <ul style="list-style-type: none"> ○ Intersection LOS at designated system intersections in the Wilburton Mobility Management Area (MMA). ○ Speed on priority vehicle corridors. <p>Air Quality</p> <ul style="list-style-type: none"> ● Per capita greenhouse gas emissions. <p>Ecosystems/ Water Resources/ Environmental Health</p> <ul style="list-style-type: none"> ● Amount of effective impervious surfaces. ● Percent of tree cover. ● Stream/lake restoration / connecting habitats. <p>Land Use/Noise</p> <ul style="list-style-type: none"> ● Concentration of development and activity at perimeter of neighborhoods. ● Height of development, location of roads, and landscaping required in relation to surrounding neighborhoods.
<p>10. Economic Vitality. Enhance economic vitality and advance the goals of the City's Economic Development action plan.</p>	<p>Performance measures in the Bellevue Economic Development Plan – page 9:¹</p> <ul style="list-style-type: none"> ● A strengthened and diversified economic base: capacity for job growth by sector, business starts <ul style="list-style-type: none"> ○ Wilburton-specific: Auto sales tax revenue offset by new economic development activity. ● Towards a sustainable city: mobility and congestion, workforce housing, natural environment – see #8 and #9.
<p>11. Timing. Explore means by which key elements of the vision can be in place by the 2023 initiation of light rail service. This includes pedestrian connectivity across I-405 and NE 8th Street, as well as catalyst land use elements.</p>	<p>Transportation</p> <ul style="list-style-type: none"> ● Qualitative description based on engineering complexity, cost, and funding availability. <p>Land Use/Public Services</p> <ul style="list-style-type: none"> ● Describe amount of growth on catalyst sites and needed capital facilities. When and how likely is the desired growth to occur – near term, mid-term, and long-term –

¹ http://www.ci.bellevue.wa.us/pdf/PCD/Final_Adopted_ED_Strat_Plan_07-07-2014.pdf

Council Principles	Relevant EIS Topic & Potential Measures
	given costs of the facilities and level of agency coordination? Identify which alternatives have more potential for near-term and mid-term implementation.
12. Public Engagement. Utilize effective public engagement strategies to involve diverse stakeholders in conversation about the project.	<ul style="list-style-type: none"> All alternatives will be developed with public engagement. The degree to which each alternative emphasizes topics raised in public comments can be qualitatively addressed.

Once performance measures are finalized, it is anticipated that each alternative would be screened with, and results summarized in a straightforward manner, such as with the example table below.

Exhibit 2. Example Layout

Performance Measure	Alternative 1 No Action	Alternative 2	Alternative 3	Discussion

Legend



Strong emphasis



Moderate emphasis



Weak emphasis