



CITY OF BELLEVUE

In Partnership with the
University of Washington

RECOMMENDATIONS FOR TRAIL-ORIENTED DEVELOPMENT ALONG THE WILBURTON SEGMENT OF THE EASTSIDE RAIL CORRIDOR TRAIL

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Livable City Year 2018–2019
in partnership with
City of Bellevue

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*The LCY student team in Gould Hall, from left to right: Aidan Carroll, Keanan Albrecht, Samuel Albee, Royce
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ABOUT LIVABLE CITY YEAR

The University of Washington’s Livable City Year (LCY) initiative is a partnership between the university and one local government for one academic year. The program engages UW faculty and students across a broad range of disciplines to work on city-defined projects that promote local sustainability and livability goals. Each year hundreds of students work on high-priority projects, creating momentum on real-world challenges while serving and learning from communities. Partner cities benefit directly from bold and applied ideas that propel fresh thinking, improve livability for residents, and invigorate city staff. Focus areas include environmental sustainability; economic viability; population health; and social equity, inclusion and access. The program’s 2018–2019 partner is the City of Bellevue; this follows partnerships with the City of Tacoma (2017–2018) and the City of Auburn (2016–2017).

LCY is modeled after the University of Oregon’s Sustainable City Year Program, and is a member of the Educational Partnerships for Innovation in Communities Network (EPIC-N), an international network of institutions that have successfully adopted this new model for community innovation and change. For more information, contact the program at uwlcyl@uw.edu.



ABOUT CITY OF BELLEVUE

Bellevue is the fifth largest city in Washington, with a population of more than 140,000. It’s the high-tech and retail center of King County’s Eastside, with more than 150,000 jobs and a skyline of gleaming high-rises. While business booms downtown, much of Bellevue retains a small-town feel, with thriving, woodsy neighborhoods and a vast network of green spaces, miles and miles of nature trails, public parks, and swim beaches. The community is known for its beautiful parks, top schools, and a vibrant economy. Bellevue is routinely ranked among the best mid-sized cities in the country.

The city spans more than 33 square miles between Lake Washington and Lake Sammamish and is a short drive from the Cascade Mountains. Bellevue prides itself on its diversity. Thirty-seven percent of its residents were born outside of the US and more than 50 percent of residents are people of color, making the city one of the most diverse in Washington state.

Bellevue is an emerging global city, home to some of the world’s most innovative technology companies. It attracts top talent makers such as the University of Washington-Tsinghua University Global Innovation Exchange. Retail options abound in Bellevue and artists from around the country enter striking new works in the Bellwether arts festival. Bellevue’s agrarian traditions are celebrated at popular seasonal fairs at the Kelsey Creek Farm Park.

Bellevue 2035, the City Council’s 20-year vision for the city, outlines the city’s commitment to its vision: “Bellevue welcomes the world. Our diversity is our strength. We embrace the future while respecting our past.” Each project completed under the Livable City Year partnership ties to one of the plan’s strategic areas and many directly support the three-year priorities identified by the council in 2018.



**BELLEVUE 2035:
THE CITY WHERE YOU WANT TO BE**

*Recommendations for Trail-Oriented Development along the Wilburton Segment of the ERCT supports the **Bellevue: Great Places Where You Want to Be** target area of the Bellevue City Council Vision Priorities and was sponsored by the Community Development Department..*



BELLEVUE: GREAT PLACES WHERE YOU WANT TO BE

Bellevue is the place to be inspired by culture, entertainment, and nature. Learn, relax, shop, eat, cook, read, play, or marvel at our natural environment.

Whatever your mood, there is a place for you in Bellevue.

From the sparkling waters of Meydenbauer Bay Park, you can walk or bike east, through Downtown, across the Grand Connection to the Wilburton West center for business and entertainment. Along the way you enjoy nature, culture, street entertainment, a world fusion of food, and people from all over the planet.

For many of us, Bellevue is home. For the rest of the region and the world, Bellevue is a destination unto itself.

The arts are celebrated. Bellevue's Performing Arts Center is a success, attracting the best in onstage entertainment. Cultural arts organizations throughout the city are supported by private philanthropy and a cultural arts fund. Arts and cultural opportunities stimulate our creative class workers and residents, whether they are members of the audience or performers. The cultural arts attract Fortune 500 companies to our community, whether it is to locate their headquarters or visit for a convention.

The past is honored. Residents experience a sense of place through an understanding of our history.

Our community buildings, libraries, community centers, City Hall, and museums provide places where neighbors gather, connect with each other, and support our civic and business institutions.

Bellevue College, the Global Innovation Exchange (GIX), and our other institutes of higher learning are connected physically and digitally from Eastgate to Bel-Red, Downtown, and the University of Washington in Seattle. We've leveraged our commitment to higher education into some of the most successful new companies of the future.

From the constant beat of an urban center, you can quickly escape into nature in our parks, streams, trails, and lakes. You can kayak the slough, hike the lake-to-lake trail, and have the opportunity to enjoy the latest thrill sport.

**BELLEVUE 2035:
THE CITY WHERE YOU WANT TO BE**

*Bellevue welcomes the world. Our diversity is our strength.
We embrace the future while respecting our past.*

The seven strategic target areas identified in the Bellevue City Council Vision Priorities are:



ECONOMIC DEVELOPMENT

Bellevue business is global and local.



TRANSPORTATION AND MOBILITY

Transportation is both reliable and predictable. Mode choices are abundant and safe.



HIGH QUALITY BUILT AND NATURAL ENVIRONMENT

From a livable high-rise urban environment to large wooded lots in an equestrian setting, people can find exactly where they want to live and work.



BELLEVUE: GREAT PLACES WHERE YOU WANT TO BE

Bellevue is a place to be inspired by culture, entertainment, and nature.



REGIONAL LEADERSHIP AND INFLUENCE

Bellevue will lead, catalyze, and partner with our neighbors throughout the region.



ACHIEVING HUMAN POTENTIAL

Bellevue is caring community where all residents enjoy a high quality life.



HIGH PERFORMANCE GOVERNMENT

People are attracted to live here because they see that city government is well managed.

For more information please visit: <https://bellevuewa.gov/city-government/city-council/council-vision>

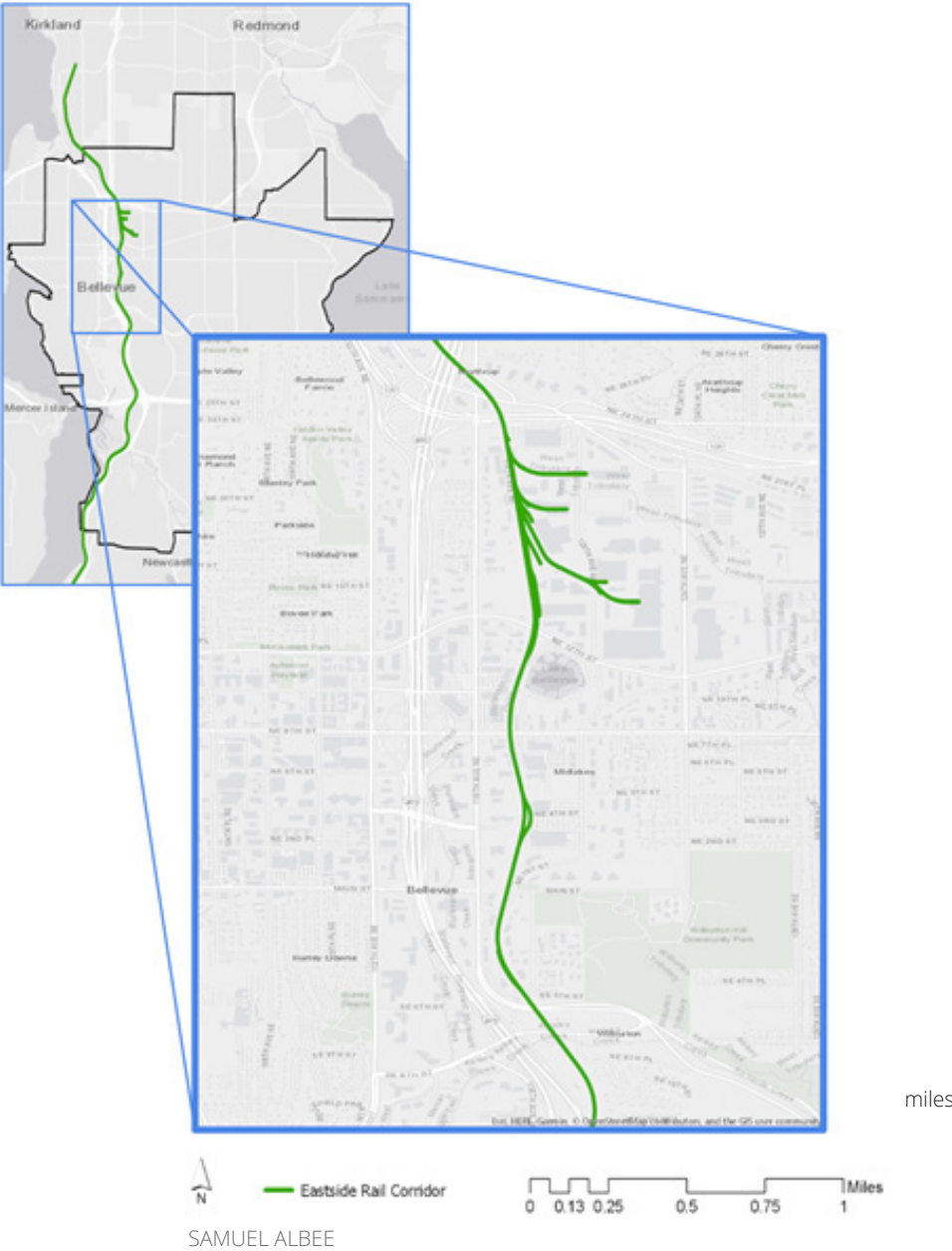
EXECUTIVE SUMMARY

Trail-oriented development is an urban design framework that promotes linking people to local businesses, community spaces, public services, and neighborhoods by way of trails and trail-supportive infrastructures. Trail-oriented development is similar and complimentary to transit-oriented development. As an emerging infrastructure for supporting non-motorized transportation, the Eastside Rail Corridor Trail (ERCT) offers new opportunities for the City of Bellevue to target innovation, sustainability, and quality of life. Trail-oriented development offers residents, employees, business owners, and customers more freedom to choose how they travel through their communities, and it welcomes new opportunities for people to interact, connect with and feel stimulated by their immediate surroundings, and engage in active modes of transportation. Trail-oriented development promotes socialization and connects people to local businesses, thereby supporting improved social and economic conditions. The ERCT presents a major opportunity for the residents of east King County, including residents of Bellevue, to access other areas via an interconnected trail system. The 16.7-mile-long continuous route will connect Bellevue to the cities of Renton, Kirkland, Woodinville, and Redmond. Upon its completion, the ERCT will link to other bike- and pedestrian-focused projects in Bellevue, such as the Grand Connection, a trail planned to link Lake Washington and downtown Bellevue to the Eastside Rail Corridor Trail. This Livable City Year project considers plans for a segment of the ERCT to run through the Wilburton neighborhood in Bellevue and how trail-oriented development can be achieved.

We examined a series of case studies from cities near and far to interpret their experiences with trail-oriented development and to identify associated costs and benefits. We considered the impacts of trail-oriented development projects in the following places: Seattle, Washington; Kirkland, Washington; Chicago, Illinois; Atlanta, Georgia; and Brownsville, Texas (proposed). Our team also met with local stakeholders to refine our research approach and to improve our understandings of how the existing Eastside Rail Corridor will be transformed into the Eastside Rail Corridor Trail. Ultimately, we synthesized our lessons learned from the case studies with the feedback we received from local stakeholders to formulate a set of best practices to guide the City's future development of the trail.

Combining the information we gathered from our case studies with data derived from spatial analysis, we devised a set of best practices for the development of the Eastside Rail Corridor Trail through Wilburton. We highlighted four distinct sites in Wilburton, where surface streets and the trail will intersect. These areas are particularly promising for trail-oriented development. We also generated suggestions for how the City can apply trail-oriented development techniques more broadly to promote social, environmental, and economic well-being. We organized our suggestions based upon one of three overarching strategic approaches: tactical urbanism, adaptive reuse, and long-term development.

MAP OF THE EASTSIDE RAIL CORRIDOR



Trail-oriented development promotes socialization and connects people to local businesses, thereby supporting improved social and economic conditions.

INTRODUCTION

TRAIL-ORIENTED DEVELOPMENT

Trail-oriented development is, at first glance, a spin-off term inspired by the nearly-ubiquitous “transit-oriented development” (Ewing and Bartholomew 2013; Curtis, Renne, and Bertolini 2009; Altoon and Auld 2011; Dittmar and Ohland 2004). Like transit-oriented development, trail-oriented development emphasizes the themes of concentrating development around alternative modes of transportation; and of allowing residents to quickly, comfortably, and reliably get where they need to go without relying upon a car. Trail-oriented development can be viewed as taking these themes a step further by way of incorporating safer and more accessible pedestrian and cyclist routes which serve as protected transportation and public open space corridors. People can utilize trails not just to access amenities and run errands but also to meet their social and recreational needs and to connect with nature. A well-developed urban trail network can merge sustainability and quality-of-life benefits associated with public open space, accessible transportation hubs, and walkable communities. Trail networks can be strategically designed as flexible and expandable to promote public health, ecological resilience, and economic vitality.

EASTSIDE RAIL CORRIDOR TRAIL

The Eastside Rail Corridor (ERC) is 16.7-miles-long and connects many of King County’s largest and fastest growing communities, including the Cities of Bellevue, Renton, Kirkland, Woodinville, Redmond and parts of unincorporated King and Snohomish counties (King County 2018). The ERC is currently being repurposed as an urban trail that will link to other regional trails to form a broader system which connects residential neighborhoods, commercial districts, employment centers, and transit hubs through many of the cities and towns along I-405. Upon its completion, the Eastside Rail Corridor Trail (ERCT) is expected to be the most heavily used trail on the Eastside of King County. The redevelopment project is occurring in segments. One segment, the Cross Kirkland Corridor, was completed in 2015; the trail was later extended one mile further into the City of Bellevue in 2018. Other segments of the trail cross downtown Redmond and downtown Woodinville. The four segments which fall under King County jurisdiction will connect Kirkland to Woodinville: the “Valley Main Line;” Woodinville to Redmond: the “Valley Spur;” I-90 to Renton: the “Lakefront Segment;” and, our focus here, I-90

to Highway 520: the “Wilburton Segment” (King County and The Trust for Public Land 2018). Many locales strive to make the most of the opportunity the ERCT project brings to improve structural aspects of their cities which impact transportation and land uses. Bellevue is no exception to this trend. The City of Bellevue has already created an ambitious plan to make its downtown more amenable, walkable, bikeable, and better connected to its surroundings. The “Bellevue Grand Connection” is an urban trail proposed by the City that will allow pedestrians and cyclists to easily and comfortably travel from the shore of Lake Washington, through downtown, to the ERCT (Bellevue Grand Connection 2017).

The Wilburton Segment of the ERCT, which will run its course of about three miles from 108th Avenue NE through Bellevue and end at I-90, is currently in the design process. Plans for this segment of the ERCT involve renovating the Wilburton Trestle, a historic railroad bridge likely to become an iconic part of the ERCT. The breathtaking view of Bellevue’s skyline from the old railroad trestle, the sight of the bridge from a distance, and the local history wrapped up in this monument all make the trestle a landmark worthy of preservation.

Trail-oriented development best practices invite the City of Bellevue to consider ways it can make more efficient use of the spaces adjacent to the Eastside Rail Corridor Trail. Ultimately, the vision is for people to be able to use the trail to commute, shop, recreate, and socialize. The ERCT thus offers a unique opportunity for the City to stand by new ways of living, shopping, and getting around in the Wilburton neighborhood that are safer, healthier, and more fun, and also, more sustainable and equitable. The results of this offer an overview the area’s spatial characteristics. Following this analysis, we created graphics to display the different stages of development that could occur at each of the four sites. Finally, we compiled our findings and formed a set of recommendations for the City to consider as it proceeds to develop the ERCT through the Wilburton neighborhood.

The ERCT will link to other regional trails, part of a broader system that connects residential neighborhoods, commercial districts, employment centers, and transit hubs of many cities along I-405.

METHODS

In order to form recommendations for the City’s development of the ERCT, we employed methods which strengthened our concepts of trail-oriented development as an urban design framework. We began with a site visit to a portion of the ERCT which already exists: the 5.75-mile-long Cross Kirkland Corridor. We discussed our impressions of this segment’s successes as well as opportunities for improved planning and development at other segments of the ERCT. We then visited the intersections where the corridor crosses NE 4th Street and SE 5th Street in the Wilburton neighborhood of Bellevue. This direct experience helped us to envision the future trail in its real-world surroundings. As a result of our site visits, we clarified and refined our central research question: What can be developed along the ERCT to create optimal results for community members, and how can the City of Bellevue act to encourage this?

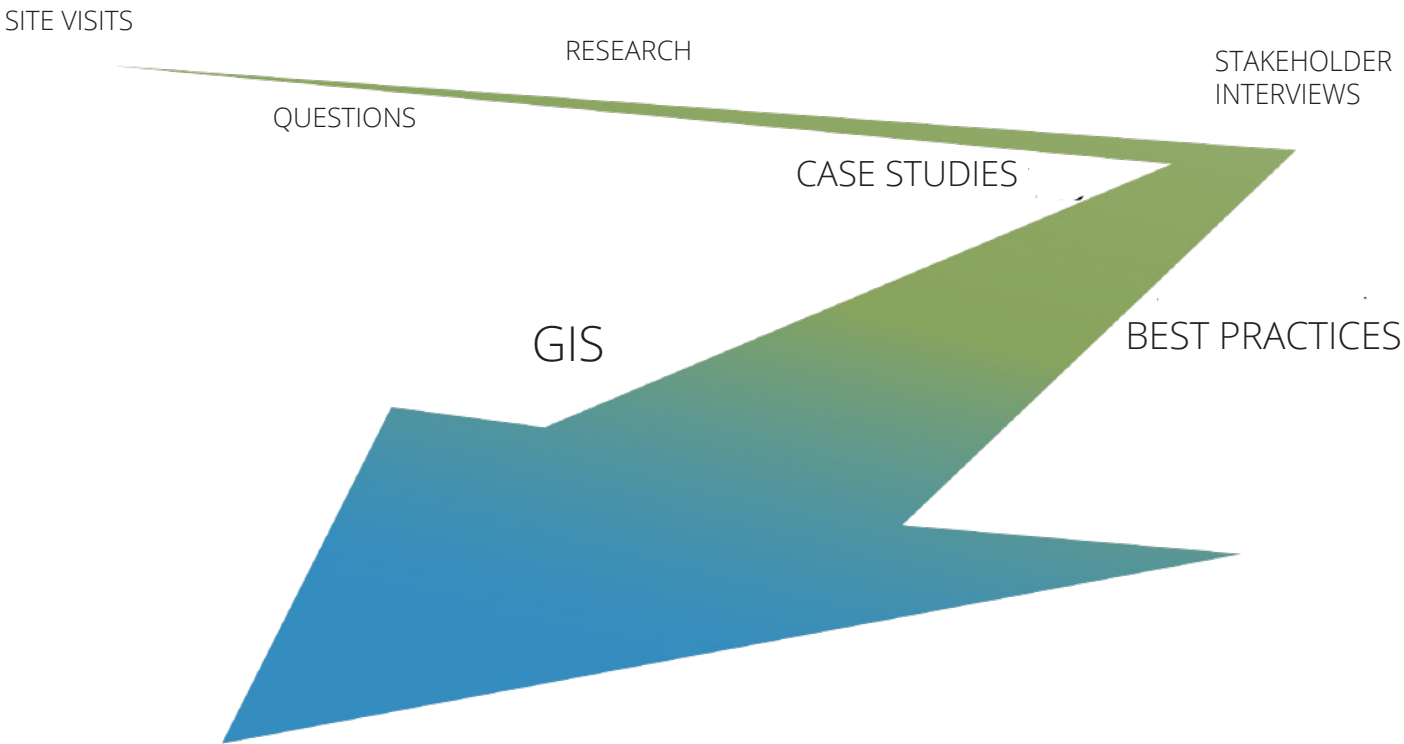
Next, our team conducted a literature review. We researched the history of urban trails and the impacts of urban trails on local economies and public health and safety. From our literature review, we began to hone in on case studies that illustrate best practices in trail-oriented development. We focused on cities from across the US that leverage trail-adjacent commercial spaces (e.g., retail, restaurants, and breweries), shown to increase the appeal of trails to community members while also benefitting local business owners. By considering trails local to King County, such as the Burke-Gilman Trail and the Cheshiahud Loop, we identified places that already promote the use of urban trails in the Puget Sound region. We also investigated well-established rails-to-trails projects from other parts of the country, including the Chicago 606 and Atlanta Beltline, as well as a proposed project, the West Rail Trail in south Texas. We gleaned insights about how communities respond to and develop around such trails.

We coordinated a mid-quarter stakeholder meeting in which we heard from the perspectives of public servants and industry professionals. Lessons taken from feedback we received during this session guided us in our future research and informed the best practices, mapping, and recommendation components of this document.

Next, our team used ArcGIS to develop reference maps which highlight community assets, zoning regulations, and income levels for Wilburton. Upon collecting this data, we were able to highlight areas with greater

potential for community and commercial development. The City of Bellevue’s staff expressed their interest in seeing how the area surrounding the ERCT can be rezoned to cultivate or enhance community assets. We selected four locations along the Wilburton portion of the ERCT to perform a strengths, weaknesses, opportunities, and threats (SWOT) analysis. The results of this offer an overview the area’s spatial characteristics. Following this analysis, we created graphics to display the different stages of development that could occur at each of the four sites. Finally, we compiled our findings and formed a set of recommendations.

RESEARCH PROCESS OF LCY STUDENT TEAM



RECOMMENDATIONS

WILLIAM PERRY

SITE VISITS

Our first site visit was to the Cross Kirkland Corridor (CKC), the completed ERCT section just north of Bellevue. Observing its route through Kirkland's Google campus, we contemplated the trail's integration with its surroundings. The trail branches off into secondary and tertiary paths to accommodate varying speeds of people walking, running, skating, and bicycling, as well as disabled people using wheelchairs, parents pushing strollers, and children learning to walk or bike. The placement of tables, benches, and a water fountain invite people to stay and linger in the space. A volleyball net over sand, stone plinth sculpture, and train replica with historical information further make the space feel like a community fixture. Despite these observations of successful placemaking, we found this segment of the ERCT to primarily provide safe access to Google commuters; it appeared closed-off to the greater public. Perhaps because this portion of the trail is surrounded by private property, owned by a single entity, it is difficult to distinguish what is public space from what is corporate property.

Placement of additional on-ramps and off-ramps, as well as trail markers could help mitigate confusion about what land is public and what is private. Visually delineating boundaries without wrecking the aesthetic is a question for another project, but strategies may involve working to avoid scenarios where the trail is surrounded by just one private entity.

After our visit to the CKC, we traveled to two locations in the Wilburton neighborhood where another stretch of the ERCT is planned:

1. Intersection with SE 5th Street, a semi-commercial area at the northern end of the Wilburton Trestle
2. Intersection with NE 8th Street, a commercial-retail district with an REI, Home Depot, Best Buy, and a new business complex

These sites marked the edges of our study area. Both locations show great potential for trail-oriented development.



This sign welcomes the public to Cross Kirkland Corridor's Feriton Spur Park, which is surrounded by the Google campus in Kirkland, Washington. BRI

LITERATURE REVIEW

THE EMERGENCE OF TRAIL-ORIENTED DEVELOPMENT

Walking from one's home to access other locations in one's community is a timeless human practice. Pedestrian movement is the most ancient and basic manner by which humans have transported themselves. In modern time, humans have grown accustomed to transporting themselves by other means — automobile, train, airplane. In order to do so, we have designed infrastructures to support these modern modes, often at the expense of pedestrian safety and comfort. An early modern instance of a city intentionally designing infrastructure to support pedestrians occurred in Paris during the early 19th century. The city constructed “covered passages” — long, covered alleys which cut through the middle of blocks lined with shops (Paris Convention and Visitors Bureau 2015). These beautiful passages were purposefully created for pedestrian use; they were not added alongside a street already laid out for cars (like sidewalks and bike lanes) or retrofitted from an existing structure (like rails-to-trails projects).

More recently, trails have been created parallel to other infrastructures (e.g., bike/pedestrian paths which run parallel to highways such as the Scott Pierson Trail in Tacoma, Washington). Obsolete or decommissioned infrastructures, such as old power lines, railroads, pipelines, mining trails, and portions of freeways, are often repurposed as urban trails. Trails may also run alongside shorelines, often parallel to other transportation routes. One of the first instances of repurposing an existing corridor as a trail in the US occurred in Wisconsin in 1967: The Elroy-Sparta State Trail replaced a former railway line, providing 32.5 miles of trail to pedestrians and bicyclists (Rails-To-Trails Conservancy 2008). Since that time, different towns, cities, and counties around the nation and world have invested in similar projects, especially intra-urban railways, like the Eastside Rail Corridor Trail. As American cities have outgrown much of the original freight infrastructure that supported their industrial growth in the twentieth century, old railway corridors have increasingly become obsolete. As cities develop toward post-industrial and technology-sector economies, this leaves ample space for trail-oriented development to flourish.

As cities develop toward post-industrial and technology-sector economies, this leaves ample space for trail-oriented development to flourish.

Re-purposing railroad right-of-ways is often legally and politically complicated, involving navigating overlapping land claims from a multitude of private and governmental agencies. Logistically, financially, and aesthetically, however, rails-to-trails projects are found to benefit urban centers. When old rail lines become repurposed into “environmentally sensitive and supportive parks and trails,” they often bring with them positive “densifying effects on local residential and commercial land use” (Immergluck and Balan 2017). This is likely why communities across the



Wisconsin's Elroy-Sparta State Trail represents the first rails-to-trails project in the US. CTCHRINTHRY

country are implementing rails-to-trails projects, seeking to rehabilitate their old railways to provide new transportation options and recreation outlets for people. The opportunity to repurpose existing corridors and reclaim space for pedestrian uses should be seized across the country, especially in view of how complicated and costly it can be to design and acquire land to create such trails from scratch. The work to build altogether new corridors involves pushing through existing infrastructures and neighborhoods. Many communities already have a trail-shaped route running right through them, with businesses and other sites already oriented along them. These routes are often ideally positioned to serve a range of community purposes while fitting seamlessly into the present layout of a place. These projects can also spur the redevelopment of industrial areas and help urban centers transition to become more pedestrian- and bicycle-friendly as well as more transit-oriented.

ECONOMIC BENEFITS AND GENTRIFICATION RISKS

Trail-oriented development is found to catalyze economic growth and contribute to quality of life (Hammons 2015). The following list captures positive outcomes of trail-oriented development:

- Retail, recreational, and tourist businesses flourish as a result of trail-oriented development. As these industries gain momentum, more community gathering spaces and social and economic hubs form. This enhances the property tax base within walkable distances of trails and increases both retiree retention and younger generation influx to trail-adjacent neighborhoods.
- Trail-oriented development makes efficient use of space, merging park-like recreation and aesthetic values with dense, mixed-use development. It also offers a greater level of proximity for compatible services and land uses. This results in reduced travel times. It also reduces automobile-reliance and improves residents' capacity to comfortably live and work without the stress of navigating traffic and finding a place to park.
- Trail-oriented development encourages greater density and accessibility among employment and educational sites, and commercial, utilitarian and healthcare services, recreational facilities, and transit stations. It builds upon and extends the benefits of transit-oriented development.

Unfortunately, these benefits are often accompanied by adverse consequences for existing low-to-moderate-income residents of areas slated for trail-oriented development. While it is a best practice to encourage complimentary development in both public and private sector retail and housing adjacent to trails, the sum of all the changes increases the appeal of living near trails to such an extent that gentrification is triggered, followed by displacement of many original residents. Thus, trail-oriented development, along with the creation of supportive facilities and the clustering of desirable amenities that can be accessed from neighborhoods

Preemptive measures to protect low-income communities and to ensure affordability of housing should be devised to guard against displacement.

via trails, ends up benefitting predominantly high-income residents. Preemptive measures to protect low-income communities and to ensure affordability of housing should be devised to guard against this common side-effect of trail-oriented development. Such measures should be considered for other complimentary urban design frameworks such as new urbanism, smart growth, and transit-oriented design, all of which are found otherwise to contribute to increased land values which push vulnerable populations out of their neighborhoods.



The Burke-Gilman Trail provides a transportation and recreational trail network for residents and visitors of Seattle. TIA INTERNATIONAL PHOTOGRAPHY

PUBLIC HEALTH

Accessibility to health-promoting spaces, commercial amenities, and employment and education opportunities relies upon either direct proximity from where one lives to such locations, or upon one's access to reliable means of transportation to access such resources. Several studies link chronic health problems with lack of access from residences to trails, parks, and other recreational outlets (Ross et al. 2007, Lee et al. 2003). Populations with limited access to such resources have increased prevalence of obesity, asthma, hypertension, diabetes, heart disease, as well as mental health issues. Many of these chronic diseases are predictably linked to poor air quality, unhealthy eating habits (often linked to limited access to healthy food options), and physical inactivity. These health conditions can be addressed, in part, by fostering active communities, designed to allow residents to immerse themselves in natural settings, like trails lined with trees and other vegetation, and other open spaces, which can be linked together via a trail system. Trails and open spaces that are connected not just to parks and natural areas but also to commercial services and employment and education centers, invite people to adopt more active lifestyles, promoting more positive health outcomes.

Thus, trail-oriented development is a highly promising step toward addressing a major American problem. About 60% of adults in the United States live at an elevated risk of contracting one or more of the preventable diseases listed previously due to their failure to engage in a daily physical activity for at least 30 minutes; the prevalence of early-onset cases of such diseases among youth populations follows an upward trend (Health and Human Services 2001). Trail-oriented development can mitigate the risk of contracting these diseases, providing new and improved means for people to integrate physical activity with their daily commute trips. People can engage in light to moderate levels of exercise as they travel to work or school, run errands, attend events in their community, or meet up with friends. In fact, the development of trail networks has been found to contribute to a 25% increase in the number of residents of an area who will exercise at least three times per week (Ross et al. 2007).

CONNECTION TO ANOTHER PROJECT

During Spring Quarter of 2019, a team from the University of Washington's Department of Public Health conducted a Health Impact Assessment (HIA) to assess the potential for trail-oriented development along and nearby the ERCT. An HIA is a type of research synthesis “expressly designed to deal with the population health effects of myriad public and private activities, including those primarily concerned with commerce, housing, transportation, labor, energy, and education” (Lee et al. 2003). This assessment provides more information on who Bellevue's new trail is likely to benefit most, and in what ways, as well as what the City can do to facilitate positive outcomes for a range of community members.

HEALTH OUTCOMES FOR LOW-INCOME COMMUNITIES

Socio-economic determinants of health involve a triad of issues: affordability, nutrition and health services, and access to recreational/exercise outlets (Ross et al. 2007). Individuals and families from low-income and/or low-educational attainment areas tend to have a lesser likelihood of perceiving their neighborhoods as hospitable for walking, running, and biking. This reduces their likelihood of exercising on a regular basis. Their neighborhoods are also less likely to be walking distance of public parks, gyms, and other recreational centers; and more likely to lack adequate tree cover and full-service grocery stores. It is, therefore, not surprising that prominent health risk factors — poor air quality, unhealthy eating, and physical inactivity — all disproportionately impact low-income communities. Strenuous work schedules and time-consuming commutes further limit low-income community members in their ability to prepare healthy meals for themselves and their households, and exercise on a regular basis (Health and Human Services 2001). As a result, low-income communities disproportionately suffer from the chronic diseases referred to in the previous section of this report. By densifying and maintaining an accessible level of affordability in and around trail-oriented development sites, planners can target positive health outcomes and livability benefits, referred to before, for a wide range of residents, including low-income communities.

SAFETY AND CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN

One area of concern in trail-oriented development is the public permeability and visibility along the trail at all hours of the day. The ERCT combines features of roadways and parks: its continuous, narrow, long paths are similar to streets; its provision of open space for people to recreate or spend their leisure time is similar to a park. Unlike parks, frequent entrances from other sites and no official closing time mean that trails are often more open than parks to whomever wishes to make use of them. Any time a trail project is proposed, a number of residents are likely to express their fear that they will lose a level of privacy and control over access to their neighborhoods. While trails and greenway corridors contribute in positive ways to neighborhoods, providing residents with more opportunities to socialize, recreate, and connect with nature, trails can also become channels for crime. However, increased presence of people in outdoor spaces has a strong preventative effect on criminal behavior, suggesting that public space promotes public safety if the public uses the space.

Increased presence of people in outdoor spaces has a strong preventive effect on criminal behavior, suggesting that public space promotes public safety if the public uses the space.

A long-standing and ongoing debate exists as to whether trails and greenways do, in fact, invite the criminal and disorderly behavior many residents expect them to. One thing is remarkably clear pertaining to the presence of trails, greenways, and parks in residential areas and public attitudes about them: overwhelmingly, they are not perceived as safe during the night, regardless of their physical characteristics, visibility, and actual crime statistics. As a result, some people are likely to avoid trails and parks because of their beliefs that they are not safe. In a recent study of “The 606” (a trail in Chicago), researchers observed a “rapid decline in violent [as well as disorderly and property-related] crimes in 606-proximate neighborhoods” (Harris, Larson, and Ogletree 2018). They linked this finding to increased social interactions, increased visibility due to lamps, and increased foot traffic by people accessing nearby restaurants and breweries after dark. As urban trail development gains popularity, planning scholars and practitioners alike should continue to study their long-term impacts on crime and community.



A view of the Interurban Trail, just north of downtown Auburn, Washington. JOE MABEL

BUSINESS CASE STUDIES

To broaden our conceptions of trail-oriented development, we developed a set of business case studies. These helped us to identify potential barriers and opportunities for businesses along the ERCT in Bellevue. We looked at examples of existing rails-to-trails projects and the areas surrounding them, and we considered designs and infrastructures that could apply to the ERCT. We used this set of case studies to reflect on which amenities could accompany the trail to make it more appealing and useful to the public. Our business case studies include two retailers, two cafes, and three breweries in the Seattle area.

RETAIL

A key part of our case study research focused on retail and other commercial businesses adjacent to trails similar to the ERCT. This helped us to view, rather than theorize, how retail and commercial spaces can merge with trails in mutually-beneficial ways. Commercial development funnels extra money into the City of Bellevue, making the tax base more stable while reducing the level of financial burden experienced by residents and businesses. It also gives locals and visitors more consumer options. We chose to examine both large-scale and smaller retail businesses since both types are present along the ERCT in Wilburton.

Case studies helped us reflect on which trailside amenities could make the ERCT more appealing and useful to the public.

Fred Meyer

The Fred Meyer outlet located in Ballard, Seattle sits adjacent to the Burke-Gilman Trail and alongside 11th Avenue NW and NW 45th Street. With more than 130 stores throughout the Pacific Northwest, Fred Meyer is a prolific retail chain. Each store is quite large; the Fred Meyer in Ballard, for example, consists of 150 thousand square feet. If one includes the site's parking lot out to the edges of its property boundaries, this Fred Meyer extends over more than 550 thousand feet. This site is a major destination for Seattleites shopping for groceries and household goods.

The Fred Meyer in Ballard appears well integrated with the Burke-Gilman Trail. Wayfinding signs and crosswalks make the area surrounding Fred Meyer easy for trail-users to navigate. Safety features built into the trail system as well as the surrounding site promote pedestrian safety and ensure that customers arriving to and leaving from Fred Meyer by vehicle are made aware of pedestrians and cyclists using the Burke-Gilman Trail. A strip of green space borders the Burke-Gilman Trail, offering a barrier which protects trail-goers from motorists in the parking lot. The location also provides a place for cyclists to park and lock up their bikes while they shop. We made note of one area of improvement: the site lacks a clear route for cyclists to safely navigate from the Burke-Gilman Trail to the store's bike parking area.



Through the use of signs and safety features, Fred Meyer in Ballard integrates with the Burke-Gilman Trail. GOOGLE MAPS

Counterbalance Bicycles

Counterbalance Bicycles, just north of Seattle’s University Village, stands out as an exemplary model of a retail business designed with trail-oriented development in mind. The bicycle store complements the Burke-Gilman Trail, which attracts droves of cyclists on a daily basis. It should be noted that businesses that are not bike shops can still learn from many of the design principles applied by Counterbalance Bicycles. The shop is visible from both the Burke-Gilman Trail and from NE Blakeley Street. Its high visibility attracts potential customers, as does the mural painted on its exterior wall. The mural, which portrays bicycles, is visually appealing and can be seen from the trail and roadway. It draws attention to passersby of the business and it positively reinforces cyclists. Counterbalance Bicycles also removed overgrowth between the trail and its store to create a clearer entrance for people traveling along the trail. The business offers bike parking, including a covered area for cyclists who wish to keep their bicycles dry in inclement weather. This case displays how an existing business can derive benefit from adaptive reuse projects occurring in their vicinity and promote their own business interests through complementary design.



Counterbalance Bicycles orients itself around the Burke-Gilman Trail in a way that is eye-catching to passersby. The business also offers covered bike parking for costumers to leave their bikes out of the elements while they shop. TERI THOMSON RANDALL

RESTAURANTS

When restaurants are located along trails, and easily accessible by bike, an area can simultaneously transform into a leisure destination and a transportation corridor. Food is a universal need and restaurants create spaces for people to congregate and linger. They are vital in urban trail systems that flourish.



St. Helens Cafe proudly invites trail-goers to stop in and grab a bite to eat on its patio, no matter the weather. AVERAGE JOE CYCLIST

St. Helens Cafe

The St. Helens Cafe is located along the Burke-Gilman Trail, east of the University Village shopping area. The restaurant opened in 2016 and caters to people that use the trail. While the St. Helens Cafe is accessible from the road, the main entrance is from the trail itself. There is ample bicycle parking directly off the trail. From there, patrons can easily access a large patio area that abuts the trail and serves as an entryway, welcoming people from the trail directly into the space. The patio is configured for year-round use and includes shade elements for summer months and patio heaters and a fire pit for colder months. The cafe's layout and design features demonstrate the way its owners value the Burke-Gilman Trail.

Solsticio Cafe

Solsticio, a cafe in Fremont, is another example of a business that makes the most of an abutting adaptive reuse project. This cafe is located adjacent to the Cheshiahud Loop, a trail that circumnavigates Lake Union and links to the Burke-Gilman Trail. The building was originally constructed to serve as a facility for the railroad which previously occupied the corridor. As such, the cafe is ideally located to allow for easy access to and from the trail. It serves as a stopping point for many people as they go about their daily routines. A large garage-style door faces the trail. This door is left open during the summer months, creating a more welcoming atmosphere and drawing people from the trail. A small fence separates the trail from the cafe's parking lot, forming a physical boundary between cars and the trail while still providing regular opportunities for pedestrians and cyclists to pass through and access the establishment.



The fence shown in this photo allows pedestrians and bicyclists to access Solsticio Cafe and the Burke-Gilman Trail while still protecting them from cars. WTERI THOMSON RANDALL

BREWERIES

The Pacific Northwest has developed an expansive craft brewery culture. Brewmasters and their customers are frequently linked to the cycling community. Breweries commonly support their communities and bike-culture in the following ways:

- Feature bicycles in their branding, such as New Belgium's Fat Tire Amber Ale and Kirkby Lonsdale Brewery's Singletrack Flowy Ale (brewed by the mountain bikers who own Kirkby Lonsdale Brewery in Kirkby Lonsdale, England)
- Sponsor local, national, and international mountain biking events
- Locate themselves along urban trails around the country
- Embrace a philosophy that they exist to serve the biking community (Some go so far as to extend discounts and special deals to customers who opt to bike, which encourages both biking and community-building.



English beer maker Kirkby Lonsdale Brewery incorporates bike themes in their iconography.
KIRKBY LONSDALE BREWERY LTD

Fremont Brewing

Fremont Brewing is located along the Burke-Gilman Trail and is a well-established brewery in Seattle. While the brewery has grown in recent years to distribute its beer across the region and nation, its brick-and-mortar location in Seattle continues to serve as a community hub. It is a popular destination for people using the Burke-Gilman Trail. We investigated some of the factors that make Fremont Brewing a success, especially among its return customers.



Bike racks and outdoor seating welcome people from the Burke-Gilman Trail to hang out at Fremont Brewing. KEANAN ALBRECHT

Fremont Brewing is ideally situated in a prime location that is accessible both by car and by walking and biking using the Burke-Gilman Trail. While it does not have its own parking area, street parking around Fremont Brewing is sufficient to serve customers who are not willing or able to walk or bike (or aware of the trail, which may be the case for newcomers to Seattle as well as for visitors of the city). The brewery is easy for passersby to see from both the road and trail. There is also convenient access from the trail to a crosswalk that leads to Fremont Brewing, which makes it safer and easier to access from the Burke-Gilman Trail. Lastly, the brewery also offers an abundance of bike racks for people to secure their bikes.

Another important aspect of Fremont Brewing's success is its attention to the dynamic of its surroundings or sense of place, often called placemaking. The brewery's most distinguishing trait is a large, well-lit sign which serves as a landmark and as lighting for the area. Bordering its outdoor seating section are plants that form a barrier between the brewery and the road; this physical boundary protects people from traffic. Lastly, the brewery's outdoor area provides shelter and space heaters, which makes it suitable for year-round use. These features distinguish the establishment as an appealing and comfortable place for people to gather, linger, and network.

Fremont Brewery's sheltered outdoor seating area and space heaters make it comfortable for people during all seasons.

Hale's Ales

Similar to Fremont Brewing, Hale's Ales is located along the Burke-Gilman Trail; however, trail and road access to the two locations differ wildly. Recognizing this, we were interested in considering aspects of this site that set it apart from others like it and in pulling from those qualities many of its successes.

Hale's Ales primarily attracts customers from its roadside entrance, but offers a secondary entrance from the Burke-Gilman Trail. Distinct entrances to serve different modes of transportation are important features of businesses set up to complement trail-oriented development. Hale's Ales offers an abundance of open space behind its building, which allows the brewery to host events that draw more customers and support from the local community. Hale's Ales also serves as a prime example of a business which uses art to create a sense of place. The brightly colored trail-door (shown in photo) is a memorable landmark to people arriving to the brewery from the trail. One area of improvement: We noticed a lack of bike racks behind the brewery. If Hale's Ales installed bike parking near the trail entrance, it would appear more bike-friendly.

Chainline Brewing

While newer to the scene than Fremont Brewing and Hale's Ales, Chainline Brewing has established itself directly along the Cross Kirkland Corridor, a completed portion of the ERCT. Creating a comfortable social gathering space appears to have been a priority consideration in the minds of those who made decisions about the site's design. Chainline's patio provides cover to ensure patrons enjoy themselves no matter the weather. The establishment's outdoor seating area features attractive hanging lights which especially improve its ambiance at night. Chainline boasts direct access to and from the trail and serves as a community focal point along the ERCT. Customers simply walk up a set of stairs to arrive at the outdoor seating area; this makes it quick and easy for trail-goers to stop in and grab a pint. The owners of Chainline received special use permits to construct their building close to the trail. This could set a precedent for other businesses along the ERCT. Chainline Brewing may become a model for modifying building codes to align redevelopment of trail-adjacent lands with the goals of trail-oriented development.

PLACEMAKING AT HALE'S ALES

Placemaking is the act of creating public spaces that are recognizable, inviting, and meaningful, catalyzing social connection, public safety, and mental health, and providing places for employees and the general public alike to enjoy a break from their daily activities. Design features of places where people feeling comfortable lingering may involve lighting, seating, plants and greenery, public art, water features, central identifiers (e.g., a sign), and delineation of the space from other spaces (for purposes of moderate privacy and a sense of being somewhere unique and defined). It is important that people feel safe and view the area as one in which they can go to relax, unwind, and perhaps enjoy respite from the hustle and bustle of their lives.



Hale's Ales provides a brightly decorated trail entrance and has enough open space to host events. KEANAN ALBRECHT



Chainline Brewing's porch comes right up to the Cross Kirkland Corridor, welcoming people in off the trail. KEANAN ALBRECHT

CASE STUDIES

ATLANTA BELTLINE (ATLANTA, GEORGIA)

The BeltLine in Atlanta, Georgia, whose construction began in 2006 and whose completion is anticipated for 2030, follows the route of a former railroad. This project embraces the concept of complete streets, an urban design concept which revolves around multi-modal design of streets to accommodate the movement of “motorists, transit riders, bicyclists, and pedestrians, including people with disabilities” (Ross et al. 2007).



Aerial rendering of the BeltLine's southeast segment ATLANTA BELTLINE PARTNERSHIP INC.

It can refer both to the “completeness” of an individual street, thereby making a street accessible to users of all modes, and/or to the “completeness” of a transportation network as a whole. A complete transportation network may be comprised of specialty streets and trails that prioritize or designate certain uses. The BeltLine is designed to cater to non-motorized modes of transportation and to facilitate recreation. More than 95,000 residents live within half a mile of the BeltLine. Once completed, the central loop will offer distinct rail, bicycle, and pedestrian lanes and 33 miles of trails that connect to schools, parks, and neighborhoods, in addition to transit hubs and urban centers. Additionally, the City of Atlanta has planned to invest in the following safety measures: wide sidewalks, frequent police call boxes, and requirements for pedestrian lighting in trail-adjacent areas. This will improve actual and perceived safety

and minimize barriers to public use.

The City of Atlanta has implemented a Tax Allocation District (TAD) to dedicate significant portions of the area’s increasing property tax revenues to support housing and community development efforts. The TAD may provide funding for an expected 28,000 housing units over the next 25 years, 20% of which will be dedicated to affordable housing to help prevent displacement and/or exclusion of low-income individuals and households (Immergluck and Balan 2017). The City aims to protect 45 diverse neighborhoods along the trail from unintended consequences of gentrification and displacement of especially low-income people. It remains to be seen whether TAD funding will be sufficient to mitigate the risk of gentrification, as a recent study found that “from 2011 to 2015, depending on the segment of the BeltLine, values rose between 17.9% and 26.6% more for homes within a half-mile of the BeltLine than elsewhere” in the city. In areas adjacent to the BeltLine, investment in neighborhood amenities could lag behind the rapid growth of private development “since private entities operate within a much different process and timeframe than public entities” (Ross et al. 2007). Orientation around a complete streets model and full and inclusionary public involvement are two keys to the BeltLine’s positive impact on health outcomes and the quality of life for residents of nearby neighborhoods.

The BeltLine redevelopment project has spanned more than a decade. In this time, the City of Atlanta has continuously distributed surveys to members of the public in an effort to include their voices and visions. In a report produced by the City in 2017 (DeVito and Jones 2018), the top priorities in 2017 identified by the public for the BeltLine’s continued development included:

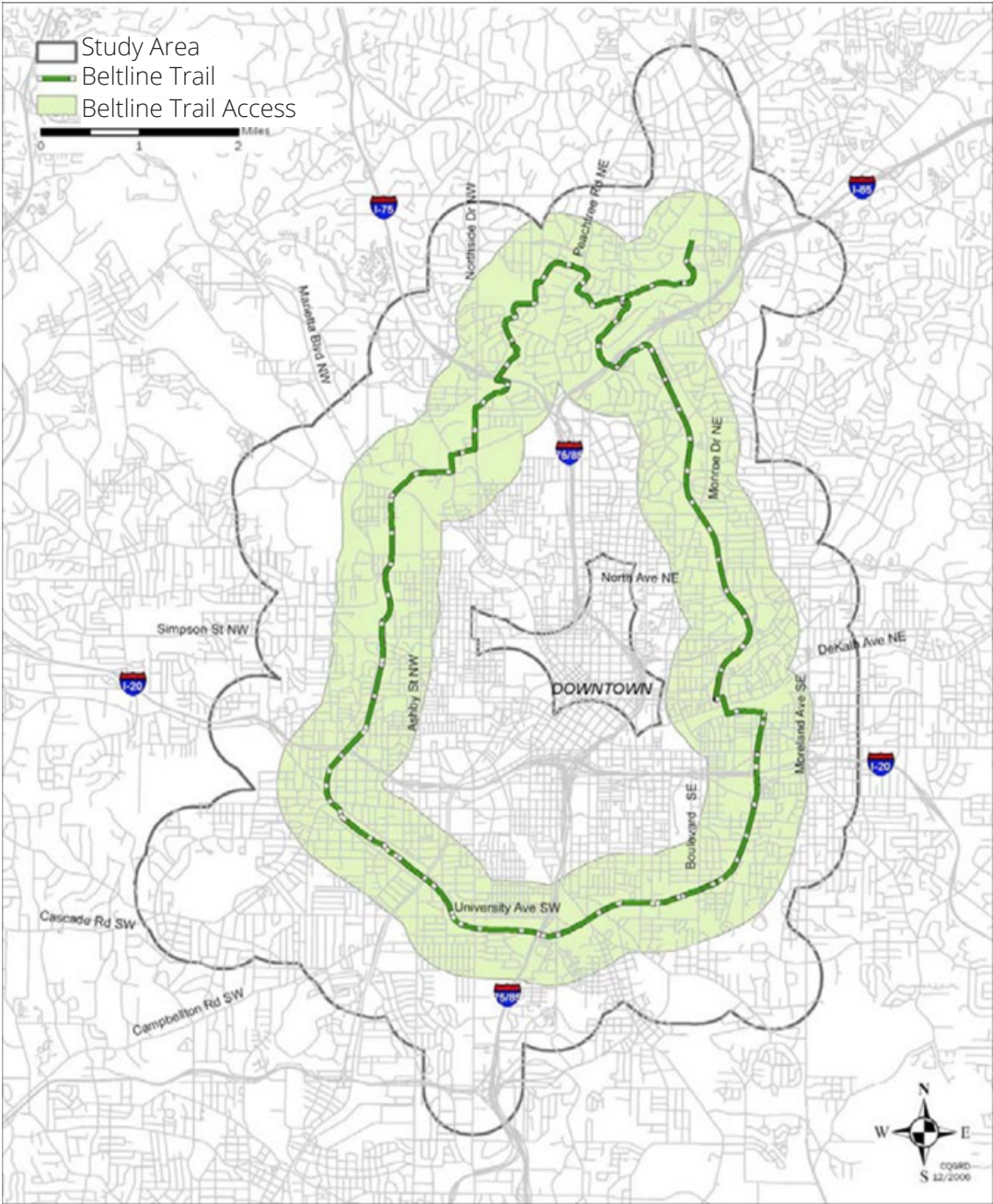
- 1) Creating more parks and green spaces
- 2) Maintaining affordable housing and creating new affordably housing
- 3) Completing the central loop
- 4) Guaranteeing affordability for small businesses

According to data collected by the City, the BeltLine is generally well-received by the communities that surround it. Public priorities align well with many of the City's primary planning considerations. Sixty percent of those surveyed consider the BeltLine an asset that enriches their community, especially by way of offering space for them to recreate, exercise, and socialize. Further survey results reveal that the project's "perceived strengths include the quality of trails, the quality of parks and green spaces, public art on the BeltLine, and the BeltLine's contribution to economic development" (DeVito and Jones 2018). There is, however, less satisfaction with the "speed of trail completion, quality of jobs, speed of transit development, and ensuring affordable housing" (DeVito and Jones 2018). The public also expressed its desire that the City invest more in expanding the trail's accessibility and safety, improving the quality of parks, and organizing more community engagement events.



Pedestrians using the Beltline Trail HIGH LINE NETWORK

MAP OF BELTLINE TRAIL



Areas in Atlanta, Georgia, within 1/2 mile of the BeltLine Trail CATHERINE L. ROSS

BLOOMINGDALE TRAIL (CHICAGO, ILLINOIS)

The Bloomingdale Trail, nicknamed “The 606” after the first three digits of all nearby postal codes, follows a previously raised industrial railroad route. The former Bloomingdale Line, built in the wake of Chicago’s famous 1871 fire, was elevated in 1910-1913 and held operations until the turn of the last century. Soon after it ceased to operate as a railroad corridor, the City of Chicago, the Chicago Park District, the Trust for Public Land, and other advocates came together in a series of meetings which culminated in 2013, with the City acquiring the land and repurposing the old rail corridor as a trail (The Trust for Public Land 2019).



A 2013 rendering predicting the future appearance of the Bloomingdale Trail. Observe the car passing under the trail. CHICAGO DEPARTMENT OF TRANSPORTATION

Historically, the Bloomingdale Line divided lands and people on either side of a busy industrial corridor. After falling out of use, the area became notorious as a site for criminal and disorderly behavior. The abandoned railroad was considered by many to be “an unregulated getaway for the homeless, drug users...and gang activity” (Chicago Department of Transportation 2013). The \$100 million rails-to-trails redevelopment project offered a way to counter these effects and turn the space into a central route for walking and biking, making it an asset to people of many neighborhoods on both sides of the corridor. This corridor underwent swift change, going from being undervalued to highly desired in a matter of years. Increased property values and gentrification accompanied this change, threatening to displace residents of an historically low-income area. The City has made some efforts to mitigate displacement of existing residents by offering grants that support residents in making improvements on their homes and buildings along the 606 route. A key driver for this policy is the reality that property values around attractive urban development are found to increase as soon as a project is realized, then plateau or barely grow, maintaining a new and higher baseline for affordability. This incentivizes property owners to sell their assets as soon as the market plateaus so that they can benefit from increased property values without paying for increased property taxes. By offering grants for home-improvements, homeowners can determine if the future value of their property will be enough for them to remain on their land and endure increased property taxes.

The grants offered are conditional, available to those who have owned and lived in their home at least three years, and who generate household incomes of less than 120% of the area median income (AMI) (Neighborhood Housing Services of Chicago, Inc. 2019). Additionally, the final application closed in October 2018, three years after the trail's opening (The Trust for Public Land 2019). By offering gradual home value increases in the years after the trail-related ones would tapered off, the City incentivized homeowners to stay, rather than leave all at once. It remains to be seen whether the grants indeed prevent displacement or if the home improvements and resulting beautification of the area around the trail end up exacerbating gentrification.



A bicyclist ascends a gradual rise on the 606 in Chicago, Illinois. BRANDON HARRIS, LINCOLN LARSON, AND SCOTT OGLETREE

The 606 Trail officially opened in June of 2015. Soon afterward it received the American Planning Association's 2016 National Planning Excellence Award for Urban Design. It provides community amenities beyond its principal function as an accessible, protected route for non-motorized transportation and recreation, including outdoor classroom sites, local green spaces and gardens, a public observatory for stargazing, and various arts programs, public art installations, and performance events (CDOT 2013). The City intentionally designed the trail as a walkable corridor, one that connects otherwise disparate amenities — schools, retail shops, community centers, and transit lines — through the use of wayfinding signs, lane cues, separated pedestrian and bike paths, and gently-sloped access points from trail-adjacent roads and neighborhood parks. The trail creates a landscape that maximizes universal accessibility and provides opportunities for people to pursue active and leisurely activities. In addition to the social and recreational benefits of the trail, it also improves stormwater drainage and ecological resilience and continuity (CDOT 2013).

The project restores and proudly showcases an infrastructural artifact, whose unique location and condition offers a special experience. Both elevated and separated from motorized traffic, this is a rare opportunity for urbanites to experience the natural world distant from the stress of cars and, in fact, above them. The trail's design incorporates a variety of heights, from ground-level to raised trail sections, and features varying degrees of proximity to adjacent buildings.

WEST RAIL CORRIDOR (BROWNSVILLE, TEXAS)

The West Rail Corridor in Brownsville, Texas is a proposed rails-to-trails project still in its planning stages. The University of Texas, Austin and the City of Brownsville have worked together to form concepts of the trail. While still in the process of securing funding to develop the trail, smaller-scale, private development activity has already occurred on lands adjacent to the corridor in anticipation of this large-scale, trail-oriented development project.



Renderings of health center entry (left) and active playground (right) LEDESMA

In an area of the country where “70% of the adult population has at least one chronic [health] condition, many correlated to high rates of overweight and obesity,” the need for improved walkability and access to recreation, exercise, and health facilities that come along with trail-oriented development is evident (Ledesma 2017). The proposed plan for the West Rail Trail is an excellent example of how trail-oriented development can address modern public health concerns. Emphasizing the development of the local economy, with jobs and resources circulating within the community, this project stands to support balanced, sustainable growth (Ledesma 2017). Local businesses, diverse affordable housing (in terms of cost and housing size), and mixed-use development can enable the provision of healthcare, employment, housing, open space, and commercial uses.

Project goals include retaining the “historical, cultural, and ecological identity of [the] area, while creating a new celebrated place for Brownsville” to grow its economy and improve the health and quality of life of its residents (Ledesma 2017). The plan also emphasizes the production of “complete residential blocks” that support and make accessible diverse amenities to local communities, ensuring safe routes from neighborhoods to the trail’s network of paths and plaza-like parks (Ledesma 2017). The plan includes a strategy to utilize the now-defunct railroad’s old switchyard as a public park and to re-introduce wetland habitat and implement bioswales to filter stormwater. In addition, the City-University partnership overseeing plans for the project envisions the trail will be surrounded with affordable, multi-scale housing above street-level job opportunities in education, retail, and commercial fields (Ledesma 2017). As such, the design proposal for the West Rail Trail illuminates an approach in multi-use development that seeks to maximize public access and use of the trail, improve overall livability of the areas adjacent to the trail, and promote environmental responsibility. While conceptualized for an area with considerably different socio-economic and environmental conditions than Bellevue’s Wilburton neighborhood, the proposed West Rail Trail is still a useful model of trail-oriented design that aims to support existing communities and not displace them.



Trailside amenities offer new opportunities for healthy, active living LEDESMA

BEST PRACTICES

Informed by our research and by the compilation of case studies related to trail-oriented development presented earlier in this report, we synthesized our findings to create a list of best practices for the City of Bellevue to apply to the Eastside Rail Corridor Trail in the Wilburton neighborhood. While not every practice need be followed by every establishment, this set of best practices can guide planners generally toward development of trail-oriented amenities that will support the trail and the communities that live around it.



People of all ages can use trails and improve their health. GENE BISBEE

ACCESSIBILITY

To ensure trailside amenities are put to good use, they must be readily accessible to pedestrians, wheelchair users, and cyclists, all of whom may access them by the trail as well as by street or sidewalk. Ramps that lead to trail-adjacent businesses and clear street navigation are two important components of ensuring design that is pedestrian-friendly. The trail segment across from N. 34th Street near Fremont Brewing models both of these design features. Planners should ensure that trail users can safely cross streets to access establishments and neighborhoods adjacent to the trail. This is likely to include a combination of pedestrian-marked crosswalks, wayfinding signs to direct people to nearby landmarks and neighborhoods, ADA-approved on/off ramps, stop and yield signs directed at drivers, as well as other notices to warn trail-goers and motorists of each other. With these elements in place, pedestrians and cyclists have a much easier time using the trail to access different businesses, parks, and neighborhoods. Incorporating a bridge/deck or other flexible style of connection to the trail also grants individual parks, storefronts, and neighborhood connector trails the opportunity to optimize accessibility as appropriate.

LIGHTING

Conceptually, lighting is simple: one needs light to see, especially in the dark. This element of design massively impacts the degree to which a space is utilized. Thus, great care should be taken to ensure lighting creates a space that is appealing, safe, and comfortable for people. Effective lighting also contributes to placemaking. Lighting can be playful and ornamental and lit signs can constitute landmarks.

Trails can promote community vibrancy and health and support broader city goals to improve health outcomes for the residents of a particular neighborhood, like Wilburton, or a city, like Bellevue.

ART

Trailside art installations can distinguish businesses from each other and make the trail more interesting for people using it. Like lighting, art installations also help create a sense of place and may serve as landmarks. The blank walls of buildings that face the trail can be transformed into vivid murals that remind people of where they are in proximity to nearby businesses, parks, and neighborhoods. Developers and planners could hire local artists to create murals like the one shown earlier in this report of Hale’s Ales’s rear-facing wall, or like the one shown here of the Metropolitan Branch Trail in northeast Washington, DC. Public art also offers a way for businesses to involve community members in creating an asset for all to share and enjoy. In the context of the ERCT, many blank walls could be transformed into art to be viewed and enjoyed by all who pass by.



Murals, like this one along the Metropolitan Branch Trail in Washington, DC, enliven dead space, making trails more inviting. TRAIL VOICE

SEPARATION

A successful amenity is one that connects with its surroundings while also having a standalone quality. This ensures patrons have a sense of where they are in time and space. In order to achieve the standalone quality, a degree of separation from the trail is important so that people realize when they are entering a new space. Meanwhile, people should still be able to access the trail easily. Taking inspiration from Fremont Brewing, once again, public and private planners might use greenery to create a buffer between trails and streets, providing small breaks for easy passage to and from the trail. Chainline Brewing created a separated space for patrons that is elevated from the trail. By making a distinction between the trail and other amenities, including businesses, developers can be sure people on the trail are experiencing the trail and people at trail-adjacent amenities are experiencing those places.

SAFETY IN TRAIL DESIGN

Controlling the pace and scale of pedestrian and bike traffic between the main trail and trail-adjacent community amenities can greatly improve the sense of physical safety, especially for slower-moving, elderly individuals, physically disabled individuals, and children. Thoughtful consideration of the range of people likely to make use of the trail when deciding on safety features for it can improve perceived and actual safety for all. Maintaining a well-organized hierarchy of lanes to accommodate different modes of use as well as speeds is important for making efficient use of space without sacrificing user safety or comfort.

ENCOURAGING HEALTHY LIFESTYLES

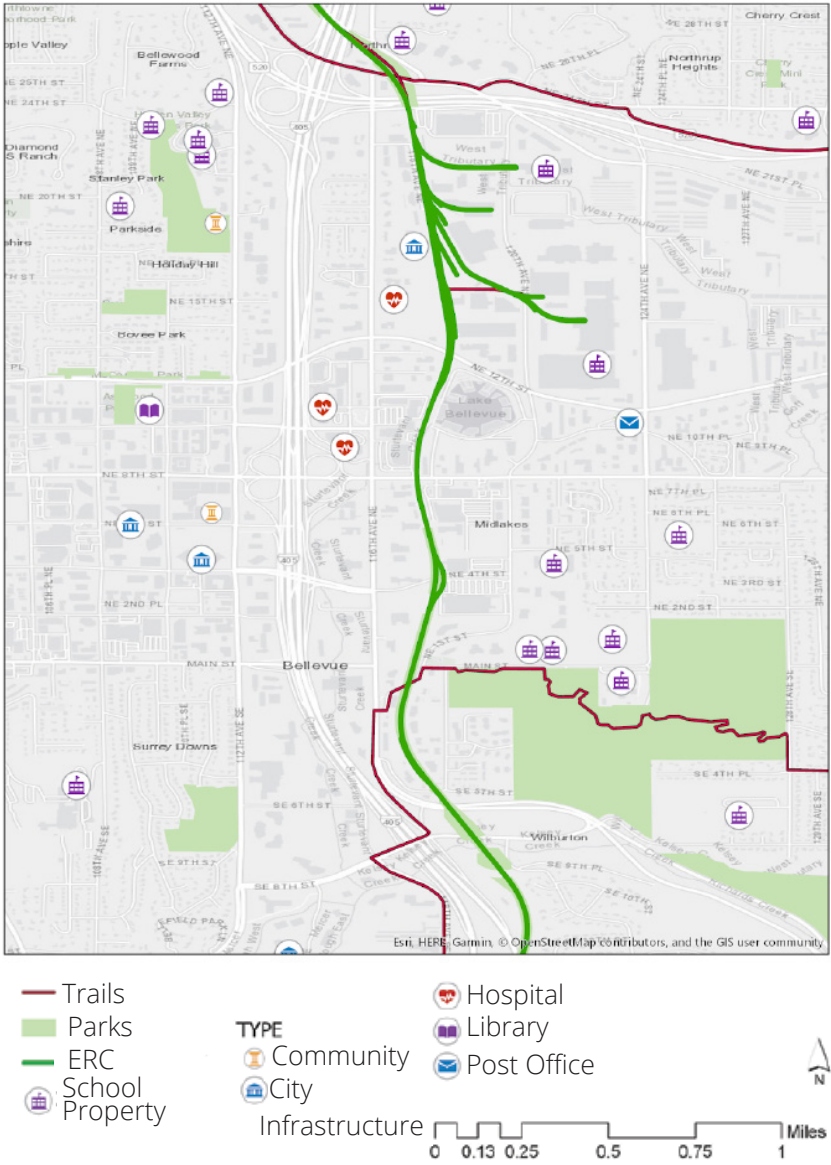
Trails can promote community vibrancy and health and support broader city goals to improve health outcomes for the residents of a particular neighborhood, like Wilburton, or city, like Bellevue. Permitting vendors of fresh produce near transit hubs and community assets, like trails; developing a local food economy through a regular farmers market with access to a trail route; and supporting the development of trail-adjacent community gardens can all yield positive health outcomes. All of these amenities would connect local people to healthy food sources. Beyond food, businesses can be involved in creating exercise facilities for a variety of ages and abilities, introducing health-oriented services (e.g., physical therapy and nutritionist offices) in lands adjacent to the trail, and incentivizing grocers and retail establishments to prioritize supporting healthy lifestyles. The more aspects of a healthy lifestyle that a resident can easily link together via continuous trail routes, the better.

GIS MAPPING ANALYSIS

We created maps of three specific elements of Wilburton to highlight important contexts for this project as well as other urban planning and development efforts: neighborhood assets, income, and infrastructural constraints. The assets map displays public and private destinations in the Wilburton neighborhood and is useful for predicting where people are most likely to travel to in the area. The assets map can guide development around a network of walking and biking routes that would link people using the ERCT to nearby amenities. The second map displays median income variations across the city. While displaying this particular demographic alone is an imperfect measure of socioeconomic ability, it is a useful proxy for determining who may be in danger of being displaced, especially as the difference between an area’s wealth and that of adjacent neighborhoods often reveals more than the difference between an area’s wealth and that of the broader region.

It is important to consider these data since studies on trail-oriented development provide considerable evidence that city investments in urban trail systems may trigger gentrification and cause the displacement of lower income community members. The constraints map displays property ownership and land management along the ERCT. This map offers context for factors that may limit project development.

COMMUNITY ASSETS MAP



ASSETS

The assets map shows places people will be able to access using the ERCT. Local assets include facilities and amenities such as schools, hospitals, libraries, post offices, and parks. These locations provide important opportunities and resources to community members and should be considered in trail-oriented development.

The assets map highlights several opportunities, including school properties with capacity for new or expanded use. The Bellevue School District owns a large amount of undeveloped land and abandoned warehouses in blocks directly east of the trail, especially between NE 8th Street and the Bellevue Botanical Garden. As the Bellevue School District grows, students, parents, teachers, and staff will have safe and appealing ways to walk, bike, or skate to schools likely to grow and open in the area.

The trail also provides direct access to the Bellevue Botanical Garden which is not only an asset for Wilburton residents but also for the greater Bellevue area. The planned Bellevue Grand Connection pathway will create a lid park over I-405 at NE 6th Street and continue to meet up with the ERCT. This means that people who want to travel to the Bellevue Botanical Garden, and indeed anything south of NE 6th Street, will be able to do so via the ERCT (Bellevue Grand Connection 2017). Additionally, the Wilburton light rail station, planned to open in 2023 (Sound Transit 2019), will connect the ERCT with mass transit and provide new transportation options to and through Wilburton and the greater Bellevue area.

By identifying additional sites where people are likely to gather, one can better determine where to invest funds in new business development and in basic trail amenities like bike racks, seating, restrooms, wayfinding signs, safety features, entrances, playgrounds, and parking.

The map also reveals, however, that most of the neighborhood's assets are several blocks off the trail — and many are situated across I-405. This is likely to mean that people will struggle to access many amenities using the trail. Access is physically constrained because the area lacks safe walking and biking routes from the trail to many of these properties. The Grand Connection aims to mitigate this with the lid park planned to cross I-405 (City of Bellevue 2018).

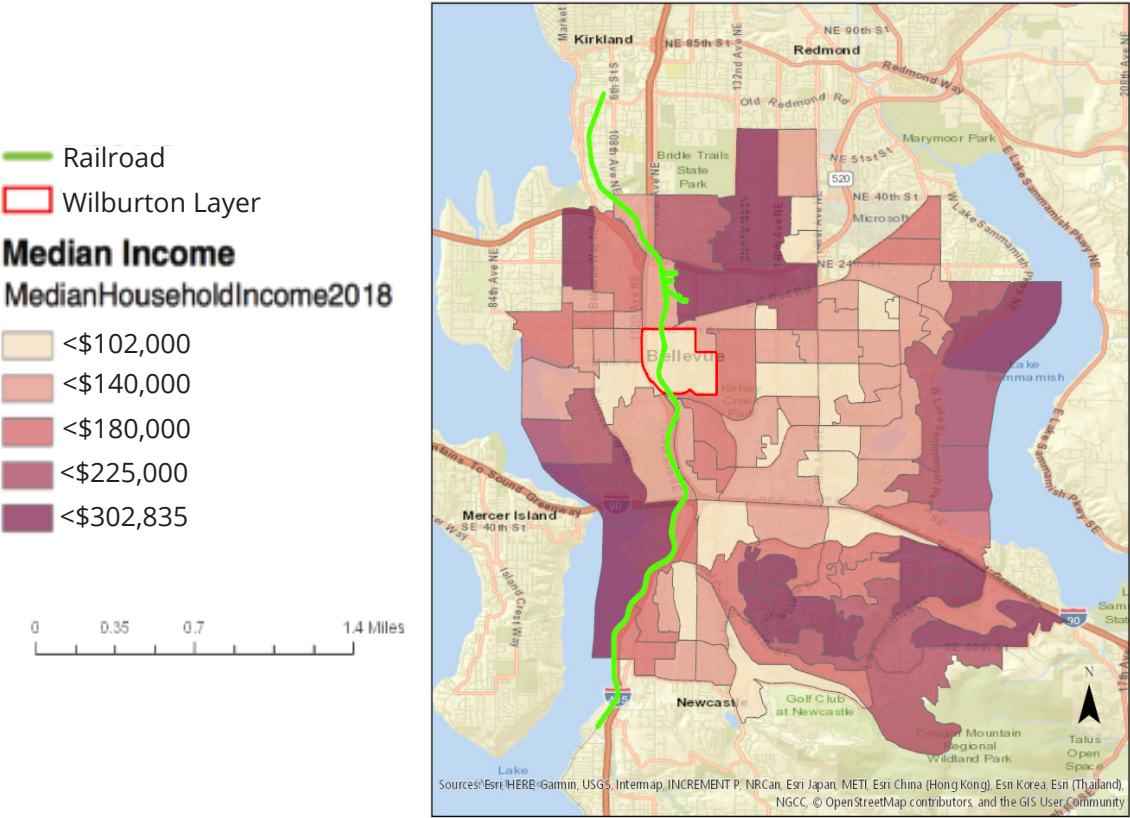
INCOME

These maps display socioeconomic demographics of Bellevue. The darker shades represent higher-than-average median incomes, while the lighter shades represent lower-than-average median incomes. The sections are divided into census block groups, which are the smallest spatial unit of analysis publicly available. This spatial analysis indicates that, while the Wilburton neighborhood (outlined in red) may be considered a high-income area when compared to the region or country as a whole, it has a lower-than-average income compared to the rest of Bellevue. As we noted previously, urban trails usually correspond with increased land values through. This can be both a boon and a threat to local communities.

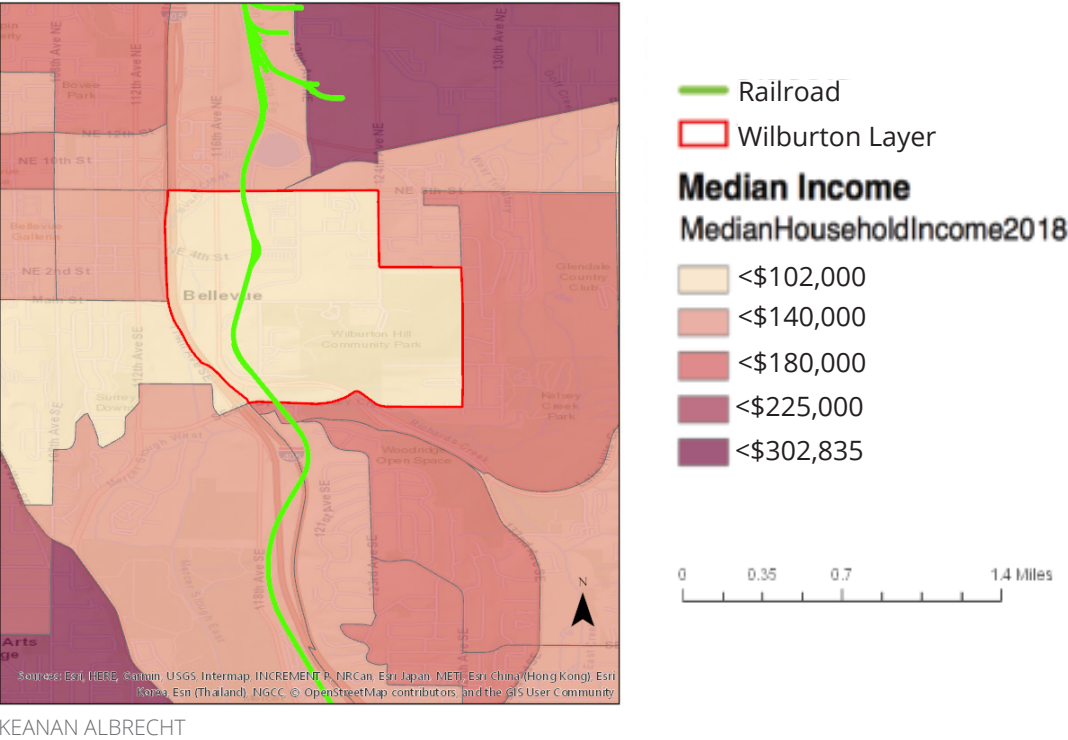
Property value is a complex issue. Individuals and groups invest in property much like they do in stocks and bonds — for both short- and long-term benefit. However, unlike stocks and bonds, taxes take effect immediately upon buying property. Thus, they can easily become a burden to land owners. While an increase in property value can benefit property owners, particularly those primed to sell, it can also dramatically raise property taxes and place a burden on one's finances. Rising property values can also spur investment in housing that facilitates urban density and creates an opportunity for more people to live in the neighborhood. This requires purposeful policymaking and zoning, however, and in the short-term it simply makes housing more expensive for current and prospective residents.

If unchecked, rising rents and property taxes can displace much of an existing community, including small businesses. Again, while Wilburton is high-income compared to many other cities in the Puget Sound region, many of city's other neighborhoods are home to even higher-income people. This means that unless preventative measures are taken, Wilburton may still experience a rapid turnover of residents no longer able to afford to remain living in their neighborhood. With that turnover of residents, diminished social capital and a deterioration of the existing community fabric would result. Come what may, the trail itself may help to regenerate communal and neighborly ties among those who can afford to live in the areas adjacent to it. As our literature review indicates, urban trails provide opportunities for observation and socialization that counter alienation and increase social capital. While this may be true, for the sake of current residents of Wilburton, the City of Bellevue must consider ways to mitigate pushing them out as new investment takes root in Wilburton.

ERCT TRAVERSING BELLEVUE CITY LIMITS



ERCT CROSSING WILBURTON IN BELLEVUE



While Wilburton may be considered a high-income area relative to the country or region, it has a lower-than-average median income compared to the rest of Bellevue.

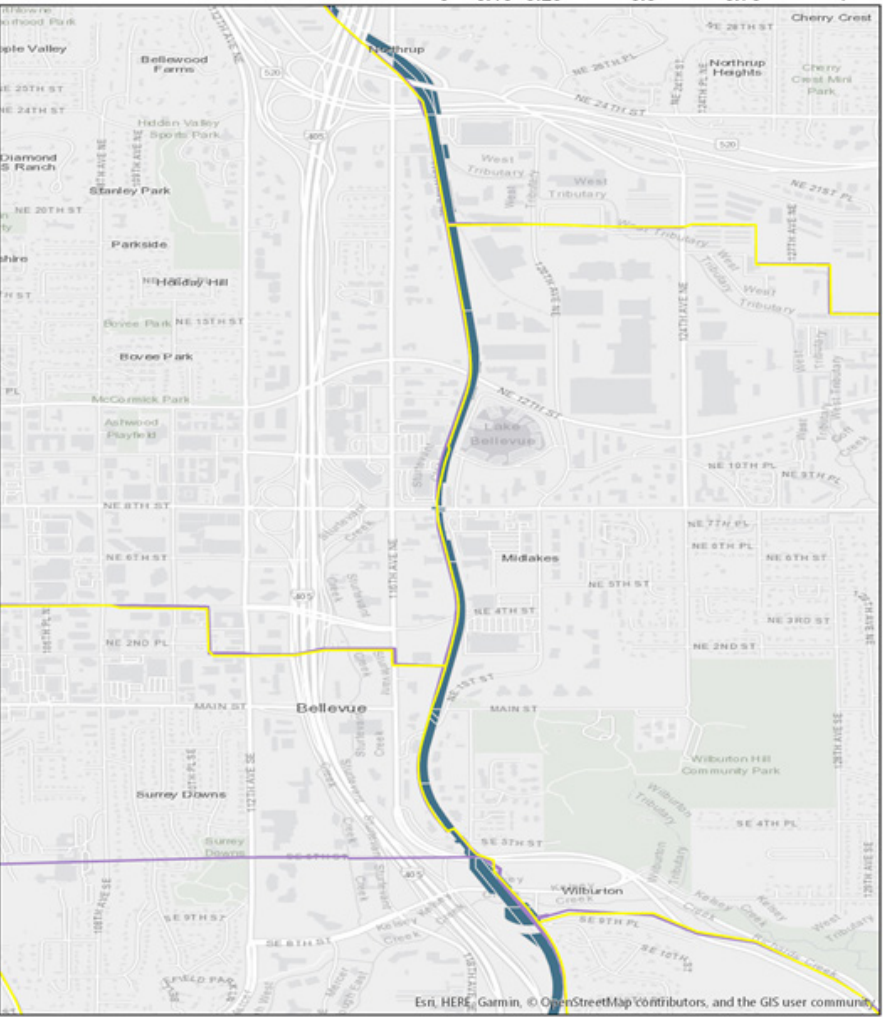
INFRASTRUCTURE

This map focuses on public infrastructure and utilities, rather than amenities. Generally, utilities constrain, rather than support, trail-oriented development. Wilburton is the only segment of the Eastside Rail Corridor in King County that is partly owned by Sound Transit. Two agencies, Sound Transit and King County Parks and Natural Resources, permit the development of the ERCT. Once developed, the area will be administered as if it were owned by the latter of the two agencies. Sound Transit, however, retains the legal right to control its property. Sound Transit would exercise this right if it sought to build a freight or passenger railway along the corridor in the future. Thus, there is a chance that this segment of the ERCT would someday be removed to make way for a recommissioned railway. According to representatives of the City of Bellevue and of King County, this is highly unlikely.

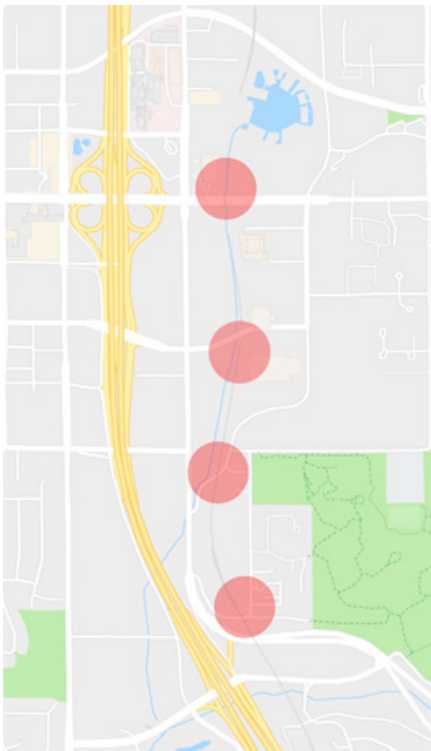
Another constraint lies below the surface-level, in the form of a fiber-optic cable network that connects the city's tech giants and critical sewage infrastructure. This network runs along the ERCT and should be considered during redevelopment of the trail and surrounding sites. In order for the fiber-optic “spine” to remain intact, planners must be cautious when building the trail and implementing trailside features. Developers of private properties nearby the trail should take similar care not to disrupt the below-ground infrastructure.

Most large urban redevelopments have similar “threats,” often far grander in terms of their scope and potential hazardous impact. These constraints can be viewed as opportunities for planners and builders to be more cautious, tactful, and creative in their planning for the Wilburton ERCT.

INFRASTRUCTURE AND LANDOWNERSHIP/CONSTRAINTS



SWOT ANALYSIS



Key intersections WILLIAM PERRY

FOUR AREAS OF INTEREST

In order for trail-oriented development to benefit communities, planners and designers must do their due diligence to consider the positive impacts a trail is likely to have as well as potentially negative effects of the trails. Assessment of the ERCT’s strengths, weaknesses, opportunities, and threats — known together as a SWOT analysis — provides a more complete understanding of how the project is likely to affect the Wilburton community. The SWOT analysis presented in this report explores the proposed integration of the ERCT into the existing Wilburton neighborhood. We selected four locations along the Wilburton segment of the trail to highlight neighborhood-specific impacts. Since characteristics of these locations vary, our analysis examines a cross section of them. This enables us to view how the ERCT could impact the primarily residential and office area in south Wilburton and the commercial areas present in the neighborhood’s north end.

GENERAL AREAS OF ANALYSIS

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none">• Ample open space to accommodate new development and preserve open space• Existing neighborhood community• Existing businesses provide economic benefits and many already have “back doors” which open to the future trail (left over from the time when these doors opened from warehouses to the railroad)	<ul style="list-style-type: none">• Car-dependent area• Major roads and crossings create surrounding “dead zones,” which lack activity, vegetation, and green space• High-traffic areas encourage people to pass through rather than linger• Not very walkable/bikeable• Minimal transit access
OPPORTUNITIES	THREATS
<ul style="list-style-type: none">• Trail could bring more customers to businesses• New schools could be located close to trail• Traffic improvements planned• Ecological restoration projects can accompany trail development• Some who currently drive will start using the trail, reducing traffic and pollution levels• Area is already partly zoned for mixed-use development• Bellevue Grand Connection and Link light rail meet ERCT in a comprehensive alternative transportation network likely to attract more visitors	<ul style="list-style-type: none">• Increased pedestrian-bike, car-bike, and car-pedestrian interaction• Traffic safety may not improve• Areas adjacent to main roads may remain uncomfortable due to persistent heavy traffic• It is difficult to carry very large volumes of goods by foot or bike (cargo bikes may be an option for some but not for all)• Gentrification and displacement in response to rising property values• Critical infrastructure - construction always has wires and pipes to avoid digging into, but: ‘fiber spine’ especially sensitive and provides internet to a wide area

LCY STUDENT TEAM



Where the ERCT will cross SE 5th Street
WILLIAM PERRY

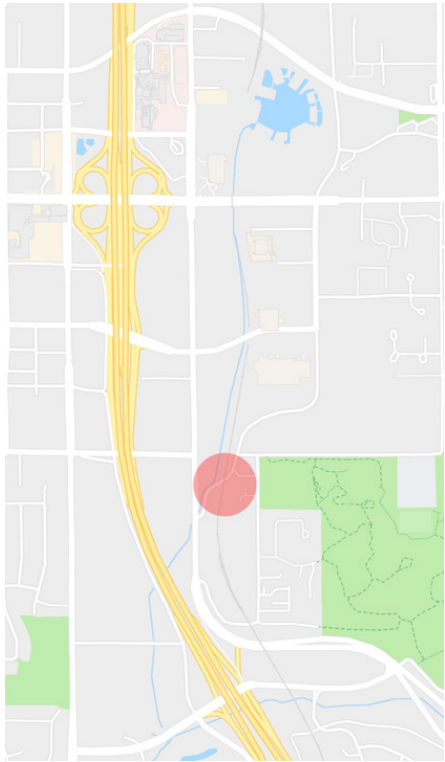
TRESTLE AND INTERSECTION WITH SE 5TH STREET

This area in south Wilburton provides a safe and quiet neighborhood atmosphere for residents. However, it is difficult to travel to and from the area by any mode other than automobile. The Wilburton Trestle will be a wonderful asset to the community. When it opens to pedestrians and cyclists, as part of the new trail corridor, it will bring with it opportunities to develop new businesses, schools, and ecological restoration projects. The ERCT provides a means for people to more quickly and safely walk or bike to access the nearest transit connection, bus 271. The new intersection created by this section of the trail, however, occurs at an odd angle and brings with it increased risk of traffic safety issues, including collisions between motorists and trail users. New construction will require digging in areas with underground infrastructure like fiber and sewage lines, as well as working around overhead power cables (King County 2015). Investing in a new commercial area, as opposed to an existing commercial area, brings with it a greater degree of risk, especially if the area lacks an adequate customer base to support new businesses.

SWOT ANALYSIS FOR TRESTLE AND INTERSECTION AT SE 5TH STREET

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none">Some greenery is present at intersection, buffering noise and filtering airSpeed limit is relatively low, 25 mphExisting office space provides employment opportunities	<ul style="list-style-type: none">Car-dependent areaRoad, railroad, and surroundings form a significant “dead zone” - wide swaths of public and private land currently empty, and some areas lacking vegetation and green spaceNo designated pedestrian crossingOnly traffic controls are stop signs, about 100 feet away on either side of intersectionNo sidewalksNo transit access
OPPORTUNITIES	THREATS
<ul style="list-style-type: none">Zoned for offices and underdeveloped, new development could enrich this sectionRRapidly growing Bellevue School District could build new schools and expand here, allowing students and staff to commute by trailSafety improvements planned: traffic calming, restriping, resigning, and possibly adding sidewalksTrestle tourists can patronize businesses old and new, make use of new parks, housing, and even motelsNew vegetation can improve ecological resilience and liveliness	<ul style="list-style-type: none">Streets intersect at an acute angle, impairing traffic visibilityPeople are endangered by traffic moving 25 mph or more, especially without pedestrian-designated crosswalks and traffic calming featuresIncreased pedestrian-bike, car-bike, and car-pedestrian interactionSoaring property values could displace residents, businesses, and office tenants

LCY STUDENT TEAM



Where the ERCT will cross SE 1st Street
WILLIAM PERRY

ERCT CROSSING SE 1ST STREET

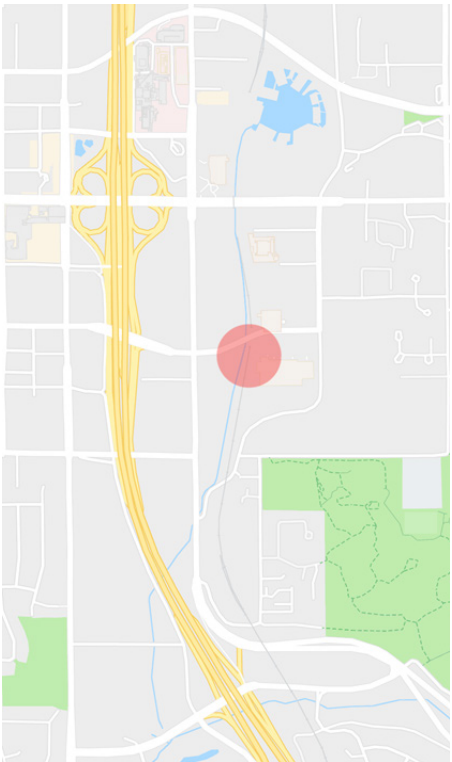
Similar to the SE 5th Street crossing, mentioned in the previous section, the SE 1st Street crossing falls within a well-established residential section of central Wilburton. This area is home to amenities such as the Bellevue Botanical Garden and Wilburton Hill Park. Though one can access the 271 bus line, this part of Wilburton is not designed to accommodate non-motorized transportation modes. The ERCT will improve accessibility to the area by other modes, and could serve as a catalyst for the neighborhood to become a new urban village and a gateway to green spaces. This part of Wilburton could become a hotspot for new shops and outlet stores to flourish. It may also be a good place to open a new school to accommodate the Bellevue School District's growth.

Like the SE 5th Street crossing, however, the ERCT will form a non-perpendicular intersection with the roadway, impeding visibility between drivers and trail users who may expect traffic to come in at a right angle. In this case, the crossing also occurs on a steep hill, with downhill traffic routinely exceeding the speed limit. This adds to safety risks that come along with increasing interactions between cars, bicyclists, and pedestrians. Once again, commercial success in a new business district is difficult to predict. Finally, fiber optic cables may present obstacles to construction of the ERCT through this area.

SWOT ANALYSIS FOR ERCT CROSSING SE 1ST STREET

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> Bellevue Botanical Garden already attracts visitors to the area Some greenery present at intersection, buffering noise and filtering air Existing businesses stand to be supported by development of ERCT Transit connection to bus line 271 complements trail-oriented development 	<ul style="list-style-type: none"> Car-dependent area Narrow sidewalks No crosswalk within 500 feet Busy arterial, downhill drivers routinely exceed 25 mph speed limit Minimal vegetation, what vegetation exists obstructs sight lines Intersection is non-perpendicular, posing greater safety risks No space for parking may inhibit establishment of new businesses The nearest bus stop is 400 feet away, but is only accessibly via stairs. People who cannot climb stairs must travel twice as far to access a bus stop
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> Zoning allows for new retail, multifamily, and office development Rapidly growing Bellevue School District could build new schools here, allowing students to commute by trail Bellevue Botanical Garden and other amenities could attract greater numbers of visitors, residents, and customers with addition of trail Staircase above and below the trail under construction just north of the SE 1st Street crossing Traffic calming and other planned changes can boost visibility and pedestrian/bike safety Greenery can be pruned for traffic visibility and expanded where appropriate 	<ul style="list-style-type: none"> Underground fiber optic lines pose small challenge to construction Traffic safety Acute angle crossing impairs traffic visibility 30 mph speed limit threatens pedestrian safety, especially without designated crosswalks Crossing in front of downhill traffic is scary for pedestrians Increased pedestrian-bike, car-bike, and car-pedestrian interaction Soaring property values could displace residents, business, and office tenants

LCY STUDENT TEAM



Where the ERCT will cross NE 4th Street
WILLIAM PERRY

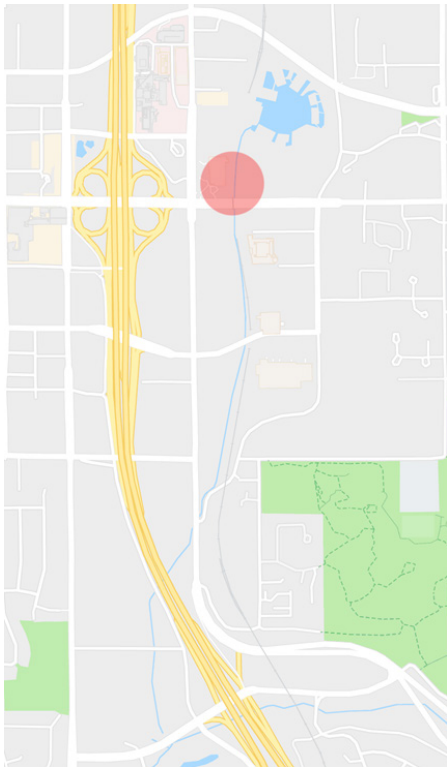
ERCT CROSSING NE 4TH STREET

The NE 4th Street intersection is surrounded by large retail businesses, including Home Depot, Best Buy, and REI, all of which feature sizable parking lots intended to accommodate motorists. The steep slope of the street provides a great view of Downtown Bellevue and is also gradual enough to feel relatively safe. While the 271 bus line runs just 1,000 feet away, on 116th Ave NE (if coming from northwest - the southeast-bound stop is 1,500 feet away), it is inconvenient to reach this part of Wilburton by non-motorized means. The addition of the ERCT through the area will address this weakness. Since this part of Wilburton is already developed for commercial uses, it may be less risky for new businesses to open. The future Wilburton Village development between 116th Ave NE, NE 4th Street, and the ERCT will contain several large businesses that will be accessible to trail-goers. The “intersection” formed by the trail is across from a busy street, but one that is more perpendicular and, therefore, safer due to reduced exposure and better lines of sight (King County 2015). Because the intersection is a busy one, the application of traffic calming and safety features is highly important. The Wilburton light rail station will be a quick walk or bike trip away from the trail. (Note: While the light rail station will fall within a mile of all four featured intersections, this intersection falls within a half-mile of the station, a distance often considered walkable for transit riders). The Bellevue Grand Connection pathway also ends at NE 6th Street, close to this part of Wilburton. Several businesses in the area can appeal more to trail users by adding entryways that face the trail. Some ecological restoration may be possible in the area, especially alongside the river that runs parallel to the trail. This would help transform an area, currently characterized as noisy, congested, and stressful, into an oasis with clean air and an invigorating atmosphere. A buried gas line is a distinct infrastructure obstacle, while the importance of not disturbing the internet “fiber spine” remains as real as ever.

SWOT ANALYSIS FOR ERCT CROSSING NE 4TH STREET

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none">Existing businesses provide economic benefitsBeautiful view of Downtown BellevueStreet crossing occurs at safe angle over smooth roadConnection to bus line 271	<ul style="list-style-type: none">High-traffic arterial in car-dependent areaWhile the slope is gradual at this crossing, it becomes steeper shortly beyond it at either sideRoad, railroad, and surroundings form large “dead zone” - wide swaths of public and private land currently empty, with some areas lacking vegetation and green spaceNo pedestrian crossing, with nearest signal 600 feet awayNearest bus stop more than 1,000 feet awayHeavy traffic causes noise and air pollution and makes the area less safe and less comfortable for people walking and bikingNon-drivers likely avoid area
OPPORTUNITIES	THREATS
<ul style="list-style-type: none">View of Downtown Bellevue is even better from a bikeRapidly growing Bellevue School District could build new schools here, allowing students and staff to commute by trailTraffic calming features will improve safetyIncreased trail trips and reduced car trips will improve traffic conditions and decrease pollution levelsGreenery can be pruned for traffic visibility and expanded where it does not obstruct visibilityCurrent customers likely to patronize new businesses and make use of new parks and other trail-oriented amenitiesWilburton Village housing/commercial space is under construction and will expand amenities for people using the trailGrand Connection adjoins to this portion of the ERCT	<ul style="list-style-type: none">It is difficult to carry things purchased at Home Depot by bike or foot. This may often also be true of purchases from Best Buy and REI. Use of cargo bikes and bike bags may mitigate this to some degree.Buried gas line requires special care during construction stagesTraffic safetyIncreased pedestrian-bike, car-bike, and car-pedestrian interaction80-foot-wide crossing with five lanes of traffic makes the area intimidating to pedestrians and cyclists30 mph speed limit is high-risk for pedestrians, especially without designated crosswalksSmall and medium-size businesses could be unable to afford rising rents

LCY STUDENT TEAM



Where the ERCT will cross NE 8th Street
WILLIAM PERRY

ERCT NORTH OF WILBURTON LIGHT RAIL STATION (AT NE 8TH STREET)

The NE 8th Street area of the ERCT has more in common with the NE 4th Street area, referred to last, than with the other two sections mentioned earlier. This area is surrounded by a commercial district that includes a grocery store, gas stations, car-related enterprises, and cannabis shops. It is once again of extreme importance that construction does not disturb the “fiber spine” upon which many local businesses and residents rely. A large amount of land in this section is taken up by parking lots. The street is flat and situated at a right angle to the trail. Unlike any intersection yet examined, this one has a bus line located directly along it: the Rapid Ride B Line, which follows NE 8th Street from Downtown Bellevue to neighborhoods east of Wilburton. There are likely to be many residents, visitors, and customers who will want to use the ERCT to pass through or arrive at this area. Furthermore, the elevated Wilburton light rail station will open on this corner as soon as 2023 (Sound Transit 2019). Finally, with the Grand Connection coming in at NE 6th Street, NE 8th Street will be the first and last area passed through by anyone going to and from the north via this junction. There is a unique opportunity to make this block a true nexus for complementary transit-oriented design and trail-oriented development uses. As always, it is critical that traffic safety be mitigated. Green space can be expanded outward from the river here as well. Combined, redevelopment of this area to provide access from the trail to existing amenities will make it safer and more appealing for people wishing to patronize local businesses.

SWOT ANALYSIS FOR ERCT NORTH OF WILBURTON LIGHT RAIL STATION

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none">Existing businesses provide economic benefitsBus stop for Rapid Ride B Line presentCrossing is perpendicular, therefore safer	<ul style="list-style-type: none">Busy arterial in car-dependent areaNo designated pedestrian crossing, with nearest traffic controls 400 feet awayRoad, railroad, and surroundings form large “dead zone” - wide swaths of public and private land currently empty, with some areas lacking vegetation and green space.Heavy traffic causes noise and air pollution and makes the area less safe and comfortable for people walking and bikingNon-drivers likely avoid area
OPPORTUNITIES	THREATS
<ul style="list-style-type: none">Existing customers can also patronize trail-oriented businesses, and make use of new parks, and/or housingSafer, lower grade than other intersectionsTrail users can transfer to and from Rapid Ride B Line hereLight rail will connect to the trailGrand Connection ends nearby, at NE 6th StParking shortage incentivizes more people to consider bike or pedestrian transportation alternatives to drivingBellevue School District growing quickly, new schools could be built here and students and staff could commute by bike or walkingTraffic calming and other safety features can make the area more comfortable for allNon-sight-blocking vegetation can be planted to restore ecological functions and add to the area’s sense of place and vitality	<ul style="list-style-type: none">It can be difficult to carry groceries intermediate distances by foot or bike. Use of cargo bikes and sturdy bike bags can mitigate this.Buried fiber-optic lines pose special consideration for constructionTraffic safetyHigher pedestrian-bike, car-bike, and car-pedestrian interactionsThe roadway is wide (80 feet), with three lanes of traffic traveling each way30 mph speed limit is high-risk, especially without designated crosswalksSmall and medium-sized businesses could be unable to afford rising rents

LCY STUDENT TEAM

RECOMMENDATIONS

TACTICAL URBANISM: ONE DAY TO ONE YEAR

Tactical urbanism is a short-term way to initiate long-term change in an area. When community members feel strongly that there is an aspect of their community that needs to change, they may pool resources, skills, and talents to mobilize themselves around their concerns and prompt change. Sometimes tactical urbanism even looks like a government agency or non-profit organization holding an event that makes better use of a space. In the context of the ERCT, there are many opportunities to utilize tactical urbanism to reinvigorate the trail, bolster awareness of the project, and make it more inviting to the public.



Pop-up bike lanes are one example of a community reimagining urban design, practicing tactical urbanism. NICK FALBO

PUBLIC ART INSTALLATIONS

The first strategy we recommend is the use of public art installations. As the ERCT meanders through different parts of Bellevue, it merges with a variety of environments. There are many buildings that back up against the trail. Local artists could be invited to add visual elements for people to contemplate and enjoy as they walk, bike, or run along the trail. By making these areas more visually appealing, more people will be drawn to use the trail. The more people who use the trail, the better for fostering community, reducing crime, and activating a space for people to recreate, exercise, socialize, and transport themselves.

EVENTS TO SPOTLIGHT THE TRAIL

Local organizations and government agencies can spotlight the ERCT through planned events. For example, the City of Bellevue could coordinate a 5K run that traverses the ERCT and the nearby Bellevue Botanical Garden. A 5K would also be a great opportunity to engage with or spotlight local businesses. Businesses might be interested in sponsoring such an event on a regular basis, helping to showcase the ERCT as a staple for sustainable transportation and healthy lifestyles for the residents of Bellevue.

WAYFINDING SIGNS

Wayfinding signs can help ensure that the ERCT is well-received by the communities of Bellevue. Signage may seem straightforward — but it is crucial that it be thoughtfully considered and planned so that people can effectively use the trail to access nearby amenities and other parts of the city. Community members themselves could be asked to help create wayfinding signs for the section of the trail that passes through their neighborhood; this would be a great example of tactical urbanism that aims to engage residents while also making the trail more user-friendly for the broader public.

FOOD TRUCK PLAZA

The segment of the ERCT in the Wilburton area that runs alongside the Home Depot presents an unique opportunity to create a space that is valued by both customers and workers alike. Many people already make use of the area as a lunch spot because it is outside and offers a great view of Downtown Bellevue. Recently, there has been an upsurge in food truck popularity, and it could be an ideal place to designate as a food truck plaza. Food trucks could activate this space and offer new economic opportunities for local communities. The City might pilot this idea for a few days or weeks to determine the potential for its success.



In recent years food trucks have gained popularity in cities across the US, including Bellevue. ELVERT BARNES

ADAPTIVE REUSE: ONE TO FIVE YEARS

Adaptive reuse is an efficient, resourceful way to make use of existing infrastructure and other elements for new purposes. In the case of trail-oriented development, adaptive reuse refers to making use of existing materials to create trailside amenities. As a rails-to-trails project, the ERCT itself is a form of adaptive reuse. Similar projects tend to take one-to-five years to complete.

Rails-to-trails, like other adaptive reuse projects, can benefit existing businesses and encourage new businesses to emerge. With many buildings already existing along the ERCT, the Wilburton area brims with potential for renovation of sites that can be made accessible by trail. Businesses can take real advantage of the trail's proximity by creating or adapting trail-facing entryways. By designing clear and appealing pathways from the trail to business entrances, people using the trail will not feel like second-class customers. Businesses can go a step further by creating small decks, patios, or other open spaces nearby their trail entrances, perhaps with welcoming amenities like seating, vegetation, bike parking, or a drinking fountain, or water feature. Due to the varying width of the ERCT, it could be difficult to create trail entrances in every instance, but whenever possible, businesses should locate themselves and their entryways in proximity to the trail to increase their visibility and appeal to trail-goers.

As a rails-to-trails project, the ERCT
itself is a form of adaptive reuse.

Using GIS, we were able to locate buildings situated in optimal locations along the trail in the Wilburton area. Clearly designated areas for entering and exiting, and for loading and unloading goods, encourage integration of the trail and local sites, and provide a safe and convenient way to get from one place to another.

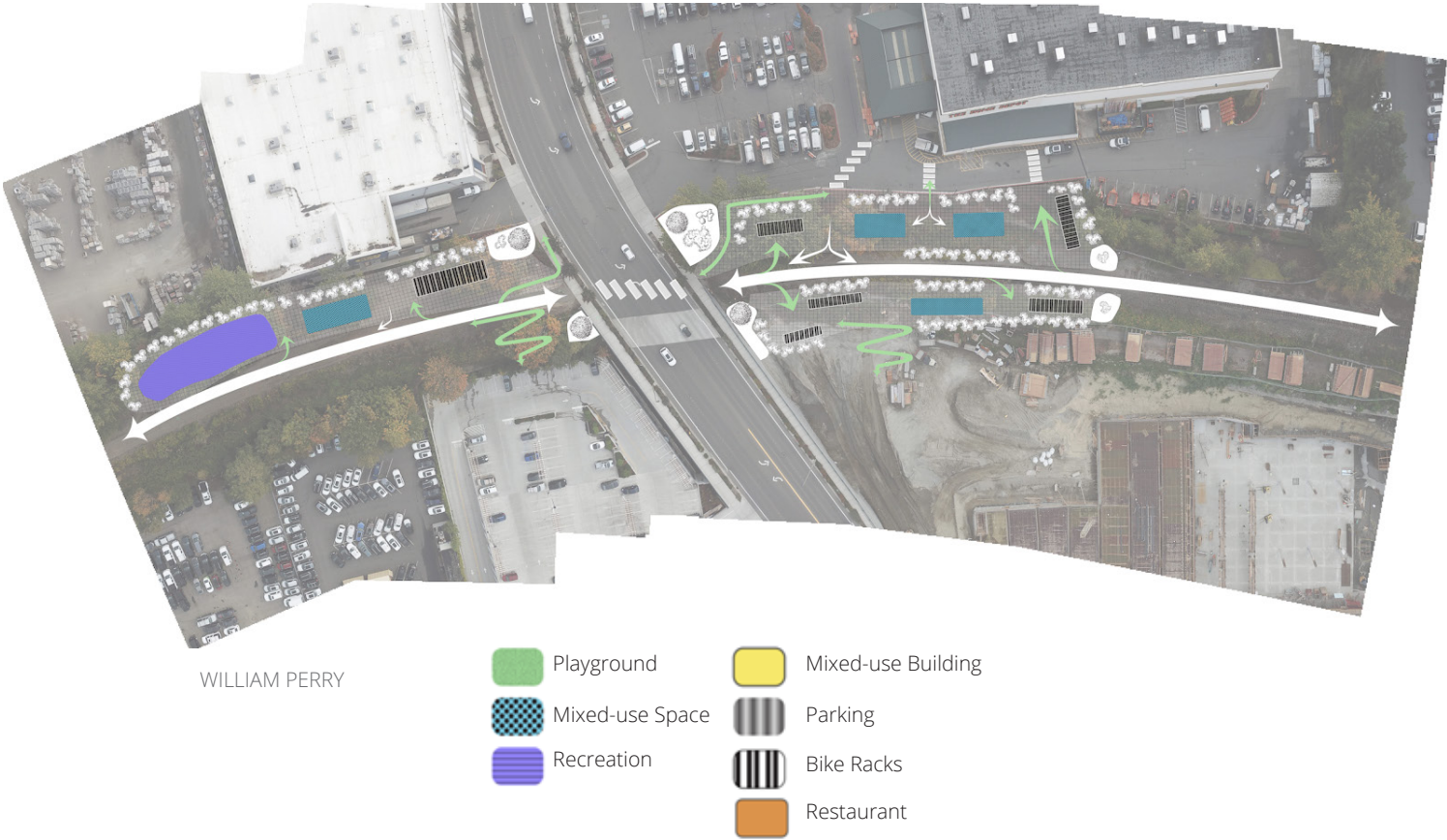
The City of Bellevue may have funding available to help promote a bright and sustainable future for Wilburton and the ERCT surroundings. Decision-makers could offer grants or loans to businesses that need assistance in planning for and building new structures. These grants or loans can also help businesses to retrofit or add trail-facing “back door areas.” The City can be directly involved with influencing the design of such spaces.

SITE-SPECIFIC RECOMMENDATIONS

The design sketch to the right offers a rough sketch of potential development along NE 4th Street, near Home Depot. Generally speaking, the land around Home Depot is under-utilized and could be repurposed to better serve the people of Wilburton and to complement the ERCT. Starting from the top, a recreational area (shaded in purple) could offer a place for trail-goers to stop and enjoy themselves; this open space would also make the trail more family-friendly. The turquoise rectangles shown on the map represent opportunities for placemaking – art installations, picnic tables, benches. The green arrows denote ways to access trailside amenities (i.e., exit ramps) and the white arrows represent ways to access the ERCT (i.e., entry-ramps). Another aspect of reorienting the area around the trail is to motivate existing stores to create entryways that face the trail. These are some possible ways adaptive reuse strategies can facilitate better use of the space around NE 4th Street.

ADAPTIVE REUSE DESIGN SUGGESTION

NE 4TH STREET INTERSECTION



LONG-TERM DEVELOPMENT: FIVE TO FIFTEEN YEARS

Long-term development plans look beyond current zoning regulations the City has in place to predict what the area could look like in the future. By observing the planning, economic, and social trends of the Bellevue area, we can begin to imagine what the community will require to grow sustainably into the future.

Through the implementation of mixed-use development, the Wilburton area along the ERCT can achieve greater economic diversity and increase inclusivity, accessibility, and ecological resilience. Ecological functionality and quality of life factors must be taken into account and can be facilitated through various placemaking techniques. The ERCT will serve as an arterial trail for pedestrians and bicyclists of east King County. While the trail will connect different towns and cities in a continuous corridor, it is important that neighborhoods like Wilburton retain distinct qualities that set them apart from other places. Various methods can be used to promote placemaking including winding trail networks adjacent to the trail, off-path features, and elements that support ecological functions.

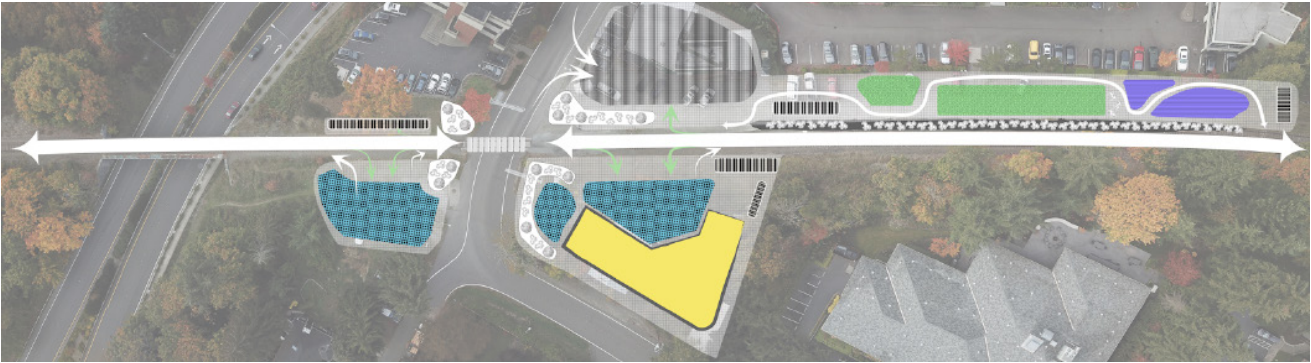
Winding trails could decrease the amount of traffic on the main route of the ERCT, allowing pedestrians, bicyclists, and others to meander at different tempos. Off-path features and business-sponsored recreational sites could provide unique trailside experiences, encouraging trail-goers to return. Examples of such features might include a pump track, perhaps sponsored by REI, or a vertical garden, perhaps designed and maintained by the Bellevue Botanical Garden. Finally, providing spaces that promote ecological function, such as pocket parks landscaped with native flora, community gardens, bioswales, and retention ponds can improve the human-to-trail connection and reinforce human and environmental health.

The SE 5th Street intersection and surrounding area offers a visual representation of what long-term development could look like in Wilburton. The trestle, for example, as a historic artifact will become a public asset and an attraction that will draw more people to the trail. Playground structures and workout equipment can be placed in spaces adjacent to the trail to provide additional recreational and exercise opportunities for children and adults alike. The arrows represent the movement of pedestrians and cyclists on and off the trail.








Finally, the last graphic depicts the NE 8th Street area. The sites just north of what is currently the Whole Foods, for example, would be ideal for mixed-use development (small businesses under apartments, for example). Housing, commercial space, restaurants, and open plazas with seating, a water feature, and vegetation would all make this area more appealing to people using the trail.

LONG-TERM DEVELOPMENT DESIGN SUGGESTIONS

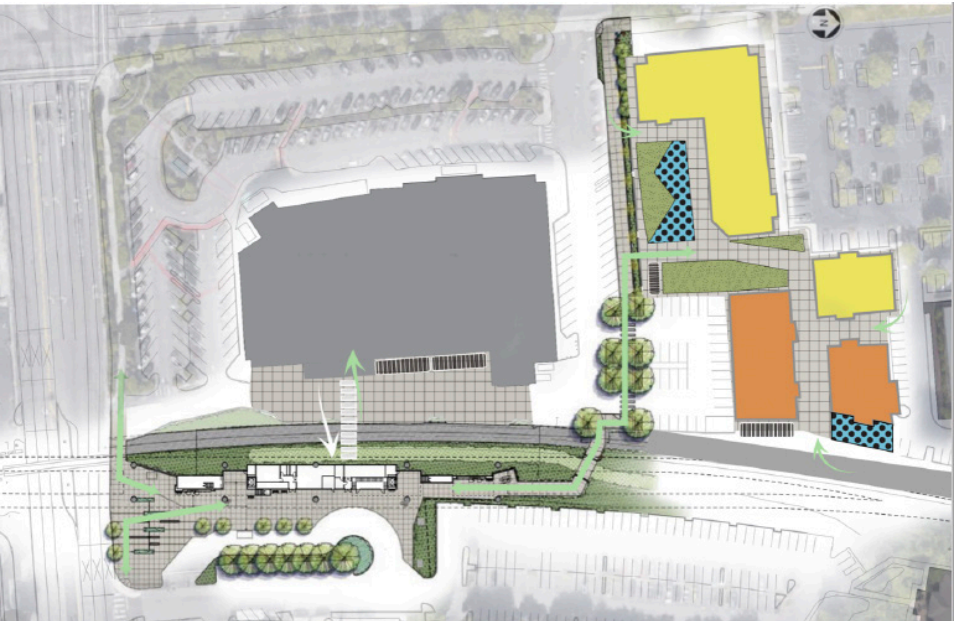
NE 8TH STREET INTERSECTION



WILLIAM PERRY

- | | |
|---|--|
|  Playground |  Mixed-use Building |
|  Mixed-use Space |  Parking |
|  Recreation |  Bike Racks |
| |  Restaurant |

SE 5TH STREET INTERSECTION



WILLIAM PERRY

CONCLUSION

While in the past developers have designed and built around single land uses (e.g., residential, commercial, industrial) and automotive transportation, today it is increasingly common to develop around mixed land uses and multi-modal transportation options. Currently, the Wilburton neighborhood offers primarily commercial, office, and residential amenities, and is designed to facilitate transportation in cars. Trail-oriented development encourages mixed-use development strategies and active transportation, offering a useful guide for areas like Wilburton which seek to embrace emerging urban trail networks and offer healthy, sustainable recreational and transportation corridors to their residents.

Bellevue's trending growth pattern has caused Wilburton's population to also increase, resulting in higher land values. As the area becomes necessarily denser to accommodate population growth, quality of life stands to be impacted in both positive and negative ways. Some of the key benefits of trail-oriented development are realized, enhanced, and more broadly shared and capitalized on when accompanied by dense conditions. When more people live or work within accessible distances of trails, more people are likely to make regular use of trails, especially when those trails enable them to access other amenities, such as schools, worksites, stores, restaurants, health centers, parks, and other service facilities. In an area like Wilburton, trail-oriented development is likely to increase the number of people who will patronize business situated close to the trail, especially when those businesses make a sincere effort to appeal to trail-goers. Many businesses, like Fremont Brewing, which line the Burke-Gilman Trail in Seattle demonstrate how trail-oriented development can benefit business owners and community members alike, stimulating the local economy and adding to an area's sense of place and vitality.

In so far as trail-oriented development helps to generate a culture around walking, biking, and other non-motorized transportation modes, it addresses many of the negative impacts attributed to population growth and dense urban conditions. Namely, trail-oriented development can curb the rate at which automotive traffic increases as a result of population growth, simply by offering other ways for people to move through their neighborhoods. Thus, it mitigates against many of the harms associated with increased driving: air and noise pollution; traffic jams and road rage; breathing issues and other health problems; and injuries and deaths due to collisions. Cities like Bellevue that anticipate population growth, and that embrace trail-oriented development, can offer their residents healthier, more sustainable options to driving.

If the correct policies are enacted, trail-oriented development can help cities like Bellevue attend to population growth and guard against negative impacts of increased traffic without risk of displacing current residents and without grinding transportation to a halt. More growth is possible under current city zoning regulations. However, intentional alterations to zoning could enhance the potential of trail-oriented development to benefit existing and future residents of the Wilburton area.

Looking five to fifteen years down the line, Wilburton is likely to appear quite different in terms of demographics and in terms of urban design and layout. The ways in which people interact with the Eastside Rail Corridor Trail and businesses adjacent to it are also likely to change over time. As the local economy responds to societal pressures, successful businesses will be those that attend to everyday human needs. Businesses close to the ERCT will have unique advantages over others. The goal of intentionally creating mixed-use spaces that integrate with complete streets and trail networks to encourage people to adopt new habits around meeting their everyday needs should be what guides urban planners and designers of Wilburton, as well as other parts of Bellevue. Many new arrangements, like constructing residential units on top of retail spaces, situating restaurants on ground floors with office spaces above, and integrating pocket parks, community gardens, and features that support ecological functions will become increasingly attractive. In order to create cohesion among the trail and other sites, we recommend that City begin by inviting businesses along the ECRT to create doors that open directly to the trail — a warm gesture of welcome to people passing by on the trail.

Trail-oriented development serves as a useful guide for areas like Wilburton in Bellevue, which seek to embrace emerging urban trail networks and offer healthy, sustainable recreational and transportation corridors to their residents.

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