

The following questions were posed by BDA Transportation Committee members during and after the first meeting in the Bike Infrastructure Improvement Series, held on September 28, 2017. City of Bellevue staff compiled answers to these questions and provided them to the BDA prior to the second meeting in the series, held on October 26.

1. What is the developer's responsibility in implementing bike infrastructure facilities?

The [2009 Pedestrian and Bicycle Transportation Plan](#) is adopted under the City's [Comprehensive Plan](#) and is therefore integrated with and informs all other planning documents. The Plan also informs the development review of private development applications to ensure that these projects implement (or do not preclude the future implementation of) bicycle system projects. Through new development and redevelopment, the private sector is responsible for "frontage improvements" that are designed to meet city streetscape standards, including sidewalks, landscaping, curb ramps, and bicycle facilities.

The Transportation Development Code [14.60.110.B](#) states: "Complete street frontage improvements shall be installed along the entire street frontage of the property at the sole cost of the developer as directed by the review engineer. Street frontage improvements may include curb, gutter, sidewalk, storm drainage, street lighting, traffic signal equipment, public utility relocation, franchise utility relocation, landscaping strip, street trees and landscaping, irrigation, street pavement widening, bicycle lanes..." Additionally, in Downtown, developments designing open spaces must include pedestrian-scaled lighting and bicycle racks among their considerations ([20.25A.110A](#)).

2. What is the City philosophy/thought about bi-directional bike lanes?

Bellevue does not have an adopted policy or philosophy about bi-directional bike lanes. As of October 2017, the Transportation Department has not yet implemented any on-street two-way separated bikeways. Although some were considered as part of the [Bicycle Rapid Implementation Program](#) (BRIP), none were ultimately incorporated into the Draft BRIP Report (April 2016) because other solutions were considered to be more appropriate based on the context and design parameters established at that time. It is possible that such a facility will be considered in the future, but none are currently planned.

The Federal Highway Administration [Separated Bikeway Planning and Design Guide](#) recommends that the decision of a one-way or two-way separated bikeway should be based on traffic lane configurations, turning movement conflicts, transit stop conflicts, intersection and driveway conflicts, parking requirements, and surrounding bicycle network options and destinations. The guide notes that a two-way bikeway may be desirable under certain circumstances, such as if there are fewer driveways or frequent transit stops on one side of the street than on the other or if the most likely destinations for people biking are on one side of the street (e.g. a park or off-street trail entrance).

3. Is the demonstration bikeway lane going to be a single direction or bi-directional?

The designs for each of the four candidate corridors are still preliminary; however, a bi-directional bikeway has not been identified for any of the corridors.

4. If the city was to implement a demonstration bikeway, how does it plan to design a bikeway around the increasing amount of stalled delivery trucks and ride share vehicles occupying rights-of-way?

The bikeway design for each of the four candidate corridors will be based on the context of the corridor and the needs of its various users. With the preliminary concepts under consideration it may be possible to retain existing or create new designated loading spaces on some corridors or it may be necessary to require limiting delivery and load/unload access along other corridors and shifting such uses to other nearby streets. Additional details will be forthcoming as these concepts are refined with the community.

5. Biking safety not only relies on infrastructure, but it requires enforcement. How does the City plan to enforce the rules to ensure safety?

The Bellevue Police Department's Traffic Unit utilizes a very active Traffic Service Request (TSR) program that has enforcement officers dedicated to investigating incoming TSR complaints from the public and taking any enforcement action necessary to address the issue. These complaints can be generated by any users of our roadways, including cyclists. Additionally, the Bellevue Transportation and Police Departments collaborate on a wide-range of road safety programs, including: educational campaigns at schools to better inform children on street safety and identify safe walking routes; enforcement targeting crosswalks, traffic signals, and speed limit laws to promote non-motorized safety; etc.

6. How is the city gathering data on bike use?

From 2008 to 2015, Bellevue relied on manual counts derived from pre-recorded video footage. Fourteen locations were targeted for these annual counts, but owing to various factors (limited staff/volunteers available, construction activity at or near some locations, etc.), not every location was counted each year (see [2014 Report](#)).

In 2015, Bellevue leveraged counters installed by WSDOT on the I-90 and SR 520 trails in Bellevue (see [Progress Report](#)). Additional counters are planned for installation at several locations across Bellevue by early 2018. Several of these locations, including 112th Ave NE, 116th Ave NE, and 118th Ave SE—together with the two existing permanent counters—will help provide insight into how many people bicycle to and from downtown Bellevue.

Consistent with Task 5 of Bellevue's Pedestrian and Bicycle Implementation Initiative (PBII) [Scope of Work](#), staff is assessing available technologies and emerging trends and practices to improve and expand its pedestrian and bicycle count program to provide more comprehensive, reliable, and actionable data and better inform non-motorized planning and project prioritization in the future. For example, the City of Bellevue is working with Microsoft in developing video analytics and machine learning systems for pedestrian and bicycle traffic data collection and conflict detection (see [ITE Journal Article](#)).

If a demonstration bikeway project is installed in downtown in 2018, before-and-after bicycle counts will be an important part of the evaluation. Although improvements along a single street cannot typically be expected to radically increase ridership—after all, people need a network of safe facilities to travel between where they are and wherever they're going—it will nevertheless help to understand the scale

of the impact that the demonstration project has on bicycle use, both along the corridor and elsewhere in downtown.

7. Other than a bikeway, what additional measures can be incorporated to make biking a safer experience? (i.e. signs and communication)

Bellevue's [Vision Zero policy](#) instructs the city to take a holistic approach towards road safety to eliminate collisions that result in serious injuries or death by 2030. Strategies fall into six categories—engineering, education, encouragement, enforcement, evaluation, and equity—collectively known as the “Six E’s.” Street design—engineering—is only one aspect of making downtown Bellevue a safe, comfortable, and attractive place to bicycle, albeit a critically important one. Without safe facilities to ride on, most people who want to bicycle will not be able to do so. Engineering has therefore been the primary focus of the Downtown Bicycle Rapid Implementation Program to date, but strategies from each of the other Six E’s categories will also be employed to make biking safer in Bellevue.

Many cities across North America have deployed demonstration bikeway projects in recent years, and the lessons they learned can help inform Bellevue’s efforts. Pavement markings and signage can help ensure that people readily understand how they should interact with new facilities, and direct public engagement can help ensure compliance. For example, green paint can be used to highlight locations where people turning into driveways cross a bikeway, increasing awareness for people driving and bicycling alike to proceed with caution. Signage placed between a floating parking lane and an adjacent curb-side separated bikeway can help clarify where people are and are not allowed to park their cars. Following the installation of a new bikeway, city staff and/or volunteers can stand along the corridor and interact with people biking and driving to help them understand how everything works.

8. How do the proposed candidate projects interact with the Grand Connection vision and future ERC?

The Grand Connection will create the primary east-west spine that will cross Interstate 405 and reconnect Wilburton and Downtown. The corridor begins at the waterfront of Lake Washington at Meydenbauer Bay Park, extends through Downtown Park, the NE 6th St Pedestrian Corridor, Bellevue Transit Center, and past the future Downtown Bellevue light rail station, and ultimately connects with the regional Eastside Rail Corridor (ERC) Trail in the Wilburton commercial area.

The ERC Trail connects Renton, Bellevue, Kirkland, Woodinville, and Redmond with more than 16 miles of new regional trail. In Bellevue, the trail starts just north of the South Kirkland Park-and-Ride, continues southeast towards Northup Way and 116th Ave NE, south through Wilburton to the west of 120th Ave NE, then parallels I-405 to the south city limits. The segment through the Wilburton Commercial Area is expected to be the most heavily used segment, and it represents one of the only urban locations for the trail. The Grand Connection and the Eastside Rail Corridor Trail are heavily influenced by one another.

How do these relate to the Downtown BRIP demonstration bikeway candidate projects? Simply put: the more people we can encourage to use that new infrastructure, the more that it is justified. So any of the candidate corridors—Main St, NE 2nd St, 106th Ave NE, or 108th Ave NE—would be beneficial to providing people on bicycles access to the Grand Connection and ERC Trail.

However, two candidate corridors could help directly inform Grand Connection plans:

- **Main Street:** There is consideration to extend the Grand Connection route to Main St to form a loop. This concept has been strongly supported by the Wilburton CAC, the general public, as well as an Urban Land Institute Advisory Panel to better connect Downtown and the southern portion of the study area. Some CAC members suggested a pilot protected bike lane on Main St to determine if the route should be expanded in the long term. (This route is also designated as one of five citywide east-west Priority Bicycle Corridors.)
- **NE 2nd Street:** The [Grand Connection Visioning Framework Report](#) identifies NE 2nd St as an alternate route that deviates from the mainline of the Grand Connection between 102nd Ave NE/NE 1st St and 108th Ave NE/NE 6th St. While bicycles would not be restricted from the mainline between Downtown Park and the Bellevue Transit Center, the alternative route allows for safe and efficient movement of bicycles, improving mobility for bicycle commuters and other faster riders. To address the grade challenges between Old Bellevue and Meydenbauer Bay Park, the route splits again at Meydenbauer Way SE to navigate the planned park entrance.

There is currently no firm date for when elements of the Grand Connection will be complete. It will be an incremental approach over a number of years barring some unanticipated influx of funding. It is possible that the portions within downtown could be substantially complete by 2023, but the implementation plan is currently still being developed. Completion of the I-405 crossing will be dependent on funding opportunities. Completing other elements for downtown could help to increase the appetite and demand to get the entire project done sooner.

9. Is there redundancy in bike usage with the Grand Connection and ERC?

The Grand Connection and ERC Trail will facilitate regional bicycle connections to downtown, and the western portion of the Grand Connection will provide an east-west connection across downtown. Although beneficial to Bellevue's non-motorized network these large-scale corridor projects are not redundant with the on-street facilities associated with Bellevue's Bicycle Rapid Implementation Program. Just like people traveling by all other modes of transportation, people on bicycles also need a network of safe, comfortable, convenient, and efficient routes to provide them with access to jobs, goods, services, and recreation. Indeed, the more bike routes that feed into the Grand Connection, the more useful the Grand Connection will be, and the more people it will allow to choose bicycling instead of needing to drive for some of their trips to and through downtown.

10. How will the City and bike share companies provide educational information to bikers so that they'll follow the rules and not be obstructions for pedestrians and vehicles?

The City of Bellevue already provides some information related to bike facilities, bike laws, and bike safety tips on its [Pedestrian and Bicycle Planning webpage](#) and through its [2015 bike map](#). Additionally, the city is currently developing a Vision Zero Action Plan that will include roadway safety education as a major component.

If the Downtown Bicycle Rapid Implementation Program results in the installation of a demonstration bikeway project and/or the permitting of private bike share services in 2018, additional city-led education and coordination with local organizations (e.g. Cascade Bicycle Club, Choose Your Way Bellevue) will be undertaken. What that includes will be determined by reviewing the city's existing educational efforts and the approaches taken by other cities with privately run bike share services.

In Seattle, where bike share companies are currently operating under SDOT's [bike share pilot program](#), all three operators are required to include information in their smartphone apps—which is how users locate and unlock a bike. The apps instruct users about the helmet law, safe riding practices, and where they are and are not allowed to park. This includes pop-up messages that are displayed upon creating a new account and when checking out a bike, and each app also has a help/FAQ/user guide section to address users' questions at any time. As part of their ongoing rider safety education campaign, LimeBike began distributing helmets to users who signed up for their monthly membership and to frequent users who post to LimeBike's social media feed.

11. Does the existing infrastructure have the capacity to support the candidate projects?

All of the demonstration bikeway candidate corridors are projects that could be implemented using existing infrastructure. New on-street bikeways could be implemented by restriping the roadway, narrowing lanes to the extent safe and appropriate based on context, and in some cases repurposing a travel, turn, or parking lane.

What we have learned from evaluating other demonstration projects around North America is traffic does tend to increase after the initial deployment but then normalizes over time as drivers find alternate routes or change their travel patterns or travel modes. The following are examples of implementations in a downtown environment that resulted in minor to no impact on motor vehicle travel times:

- New York: Since 2007, New York City Department of Transportation (NYCDOT) installed over 30 miles of protected bicycle lanes. NYCDOT found that: (i) Travel speeds in the Central Business District have remained steady as protected bicycle lanes are added to the roadway network; (ii) Travel times on Columbus Avenue have improved while vehicle volumes are maintained; (iii) First Avenue travel speeds remained level through project area; and, (iv) Travel times on 8th Avenue improved by an average of 14%. (*NYCDOT, 2014 – [Protected Bicycle Lanes in NYC](#)*).
- Chicago: After Chicago's Kinzie Street protected bike lane was installed, a travel time study found little to no effect on automobile traffic: (i) Eastbound morning rush hour travel time from Milwaukee Avenue to Wells Street increased by less than one minute; (ii) Westbound morning rush hour travel times from Wells Street to Milwaukee Avenue slightly improved; (iii) Evening rush hour travel time in both directions slightly improved. (*Chicago DOT, 2011 - [Initial Findings: Kinzie Street Protected Bike Lane](#)*)
- Minneapolis: After two streets in Minneapolis were converted to be more bicycle friendly, bike traffic increased 43%, total vehicle crashes decreased, traffic efficiency was maintained, and parking revenues remained consistent. (*City of Minneapolis, 2010 - [Hennepin Avenue and 1st Avenue Two-Way Conversion Evaluation Report](#)*)

This approach of reconfiguring roadways to achieve a [Complete Streets](#) network is consistent with the City of Bellevue's Comprehensive Plan, which instructs the Transportation Department to "maintain and enhance a comprehensive multimodal transportation system to serve all members of the community" and to "provide appropriate facilities to meet the mobility needs of people of all ages and abilities who are walking, bicycling, riding transit, driving, and transporting goods." It is important to note that these decisions are being carefully considered along select downtown corridors where plans, policies, and the community have identified a need for bicycle accommodations that are safe and comfortable, and constrained conditions make tradeoffs inevitable.

12. How does the bike infrastructure work with the City's multimodal plan?

Transportation investments in Bellevue are guided by plans and policies including:

- Bellevue's [Comprehensive Plan](#) establishes the policy framework for all aspects of city business, including transportation. Some key policies relating to bicycle infrastructure include:
 - TR-24 – Incorporate pedestrian and bicycle facility improvements into roadway projects in accordance with the Pedestrian and Bicycle Transportation Plan.
 - TR-29 – Consider community goals that may be as important as managing vehicular congestion, such as goals for land use, neighborhood protection from wider streets and cut-through traffic, livability, or economic vitality. For example, a higher level of vehicular congestion is allowed in some areas of the city... in return for stronger emphasis on transit, walking, bicycling and other mobility options...
 - TR-61 – Allow for repurposing of travel lanes for other uses such as parking, transit or pedestrian and bicycle facilities where excess vehicular capacity exists and/or to optimize person throughput along a corridor.
 - TR-61.3 – Design and manage streets to foster safe and context-appropriate behavior of all roadway users.
 - TR-116.1 – Strive to provide separation between motorized vehicles, pedestrians, and bicyclists, as feasible, reasonable and appropriate to the context, while maintaining adopted level of service standards for all modes.
- The [2009 Pedestrian and Bicycle Transportation Plan](#) identified roads citywide that compose the bicycle network, designated eleven continuous, cross-city Priority Bicycle Corridors, developed a prioritized project list to help realize these networks, and adopted five measures by which to assess progress towards achieving the plan's goals. Four of the designated Priority Bicycle Corridors span downtown Bellevue: Main St, NE 12th St, 108th Ave NE, and 112th/114th Ave NE. Four additional corridors are also identified as being part of the bicycle network: NE 2nd St, NE 6th St, 100th Ave NE, and 106th Ave NE.
- The [2013 Downtown Transportation Plan](#) (DTP) refined some of the 2009 Plan's bicycle facility recommendations. For example, the DTP updates the intent for 100th Ave NE from wide shoulders to designated bike lanes, it highlights 108th Ave NE as a designated transit and bicycle priority corridor between Main St and NE 10th St—acknowledging the corridor's significance as identified in the Ped-Bike Plan and the 2014 Transit Master Plan.

- The [2014 Transit Master Plan](#) recognizes that as Bellevue's transit network evolves with the implementation of East Link Light Rail and resources are increasingly focused on providing productive all-day services along the Frequent Transit Network, it will be ever more important to enhance the pedestrian and bicycle environment so that transit can enable more people to reach more destinations in less time.
- In 2016, the Bellevue City Council adopted a [Complete Streets Ordinance](#) reflecting a commitment to create a connected multimodal network. The Complete Streets framework comprehensively considers, balances, and incorporates the mobility and access needs of people of all ages and abilities who are walking, bicycling, riding transit, driving, and transporting goods consistent with the need and character of the surrounding community.

13. How does PBII consider the emerging trend of bike share?

Task 6 in the PBII Scope of Work instructs staff to conduct a bike share feasibility analysis and develop an implementation strategy to “provide people in Bellevue access to a bicycle when they want one, without having to worry about storage, security, and maintenance.”

Because of rapidly evolving technology and the changing bike share landscape in Seattle, Bellevue and its Eastside partner jurisdictions have had to reconsider the most appropriate path forward on introducing bike share as a new mobility option in our respective communities. Bellevue's Comprehensive Plan includes policy TR-115, which instructs the city to “support establishment and operation of a bicycle sharing program in Bellevue.” To that end, the Transportation Department is currently exploring the public's interest in potential bike share services; however, the city is not currently considering an approach that requires city financial investment.

Thus, while the original intent of PBII Task 6 remains—to provide people with access to a bike when and where they want one—the means and the city's role in facilitating such access have changed. Instead of undertaking a market analysis, developing a system plan, exploring potential funding strategies, and packaging all of this into a feasibility and implementation report, the task now is to determine whether, when, and how to implement a pilot program that permits private companies to operate bike share in accordance with Bellevue's priorities. If this approach is supported by the community and Transportation Commission, permit requirements would be created to balance flexibility/usability with ensuring that the public's concerns are addressed to the greatest extent possible.

14. Will the demonstration bikeway project protect driveway access?

Each candidate corridor has its own specific needs and priorities, so the design of each will reflect its unique context to balance the needs of its various users. Each of the corridors has driveways to which access will need to be maintained, and it is not anticipated that any existing driveways would be closed along any of the candidate corridors. However, it may be necessary to manage how some driveways are accessed on some corridors by implementing turn restrictions—for example, eliminating left turns into or out of a driveway—to improve safety for people on bikes and/or to improve traffic flow.