

# Cohesive Design Strategies



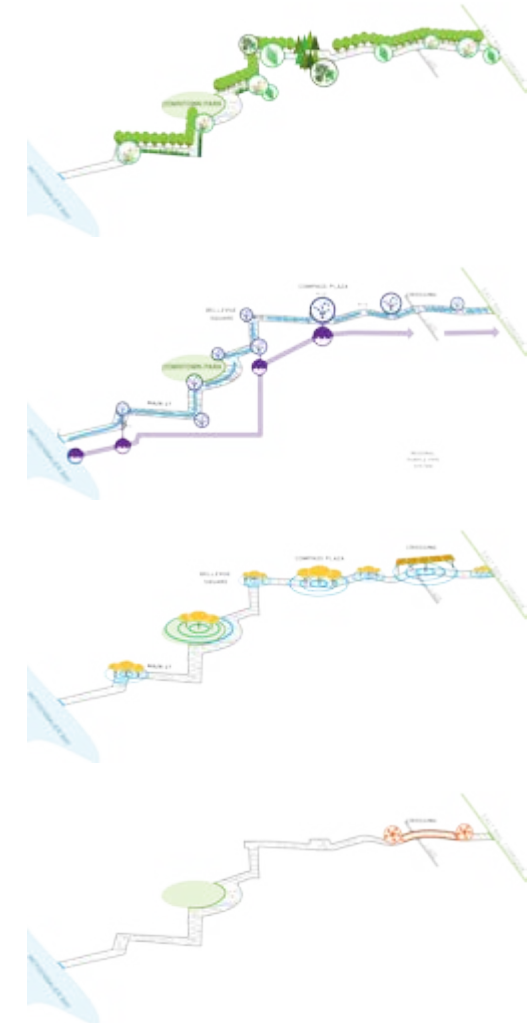
# Cohesive Design Strategies

## Overview

The proposed cohesive design strategies seek to support the overarching identity of the route, while also providing a consistent and identifiable aesthetic. The design team recommends several opportunities where specific urban elements could form a consistent aesthetic.

- **Paving** – A unifying hardscape and softscape aesthetic, supported by urban amenities such as lighting and seating that is consistently represented along the route.
- **Vegetation and Sustainable Infrastructure** – A planting palette that responds to unique context and conditions while establishing a consistent vocabulary of planting types supportive of Bellevue’s “City in a Park” identity.
- **Weather Protection** – Carefully crafted and selected forms of weather protection that create a consistent aesthetic but are responsive to the needs of the context of installation.
- **Raised Intersections** – A strategy that elevates the priority of non-motorized transportation while creating opportunities for a unique design aesthetic and sense of arrival at strategic gateways and intersections.

When combined, the cohesive strategies layer urban design features, amenities, and aesthetics that stitch the entire route together while recognizing the diverse uses and contexts that exist along the route.



▲ Cohesive Strategy Diagrams - Image by Balmori Associates

## Paving Strategies

Paving represents one of the strongest methods to establish a powerful cohesive design strategy. The surface with which people will move on is continuous through the entire route, and creates an opportunity for a single thread that ties the entire route together. Paving also represents one of the most visible aesthetic features for users of the corridor, while complementing and enhancing the surrounding built environment.

With natural landscape playing an essential role in the route, the recommended paving strategies also seek to identify opportunities to integrate landscaping, vegetation, and urban amenities to form an aesthetic quality that unifies the hardscape and softscape of the city.

The recommended strategies seek to deviate from standard sidewalks and paving strategies, as well as more typical planting strips found in urban environments. The three strategies that respond to the urban context, the natural topography, and surrounding uses present opportunities to create an aesthetic specific to the Grand Connection route. It will complement Downtown Bellevue as a whole while emphasizing the route's important role in the urban fabric.



▲ Paseo Vista Alegre - Castello, Spain - Sanahuja & Partners



▲ Songdo Canal Walk - Songdo, Incheon, South Korea  
- Kohn Pedersen Fox Associates

## Option 1 - Linear to Free

Option One seeks to create a linear form as it moves through the tighter urban environment of Downtown, while creating a free form pattern as it approaches the less intense areas of Downtown Park, Old Bellevue, and Meydenbauer Bay Park. The tighter linear form would create well defined edges between hardscape and softscape, as well as jagged edges that would allow the two to integrate. Seating and other urban amenities would emerge from this linear form, creating a dynamic streetscape and pedestrian environment.

The segment from Downtown Park to Meydenbauer Bay Park would pursue a free form approach by “fading” the edges between hardscape and softscape. Both approaches create a paving strategy that is responsive and speaks to the context of the urban environment.



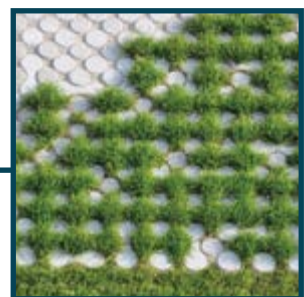
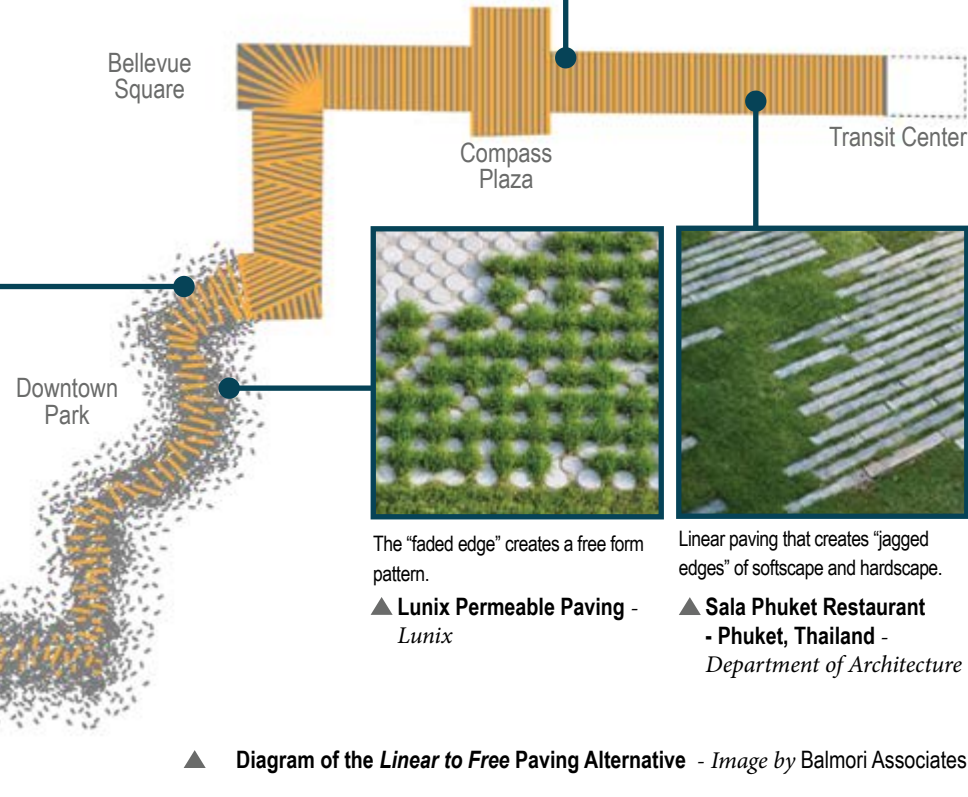
Seating and other urban amenities are woven into the linear softscape and hardscape.

◀ **Beiqijia Business Technology District - Beijing, China** - Martha Schwartz Partners



The free form is responsive to the less urban environment of the Downtown Park, Old Bellevue, and Meydenbauer Bay Park.

▲ **The Lost Tower of Painella** - Silvia Mihaela Diaconu & Bogdan Laurentiu Gogoci



The “faded edge” creates a free form pattern.

▲ **Lunix Permeable Paving** - Lunix



Linear paving that creates “jagged edges” of softscape and hardscape.

▲ **Sala Phuket Restaurant** - Phuket, Thailand - Department of Architecture

▲ **Diagram of the Linear to Free Paving Alternative** - Image by Balmori Associates

## Option 2 - Linear to Curvy

Option Two replicates the tighter urban environment found in Option One, while taking a different approach as the route moves towards the waterfront. Like Option One, the area between the Transit Center and Bellevue Square seeks to create a linear form as it moves through the tighter urban environment of Downtown. The segment between Bellevue Square and Meydenbauer Bay Park seeks to create a more fluid form, that is responsive to the change in topography and the approach to the waterfront.

The tighter linear form would create defined edges between hardscape and softscape, as well as jagged edges that would allow the two to integrate. Seating and other urban amenities would emerge from this linear form, creating a dynamic streetscape and pedestrian environment. The segment from Downtown Park to Meydenbauer Bay Park would visualize the topography with ribbons of landscaping incorporated into the paving.



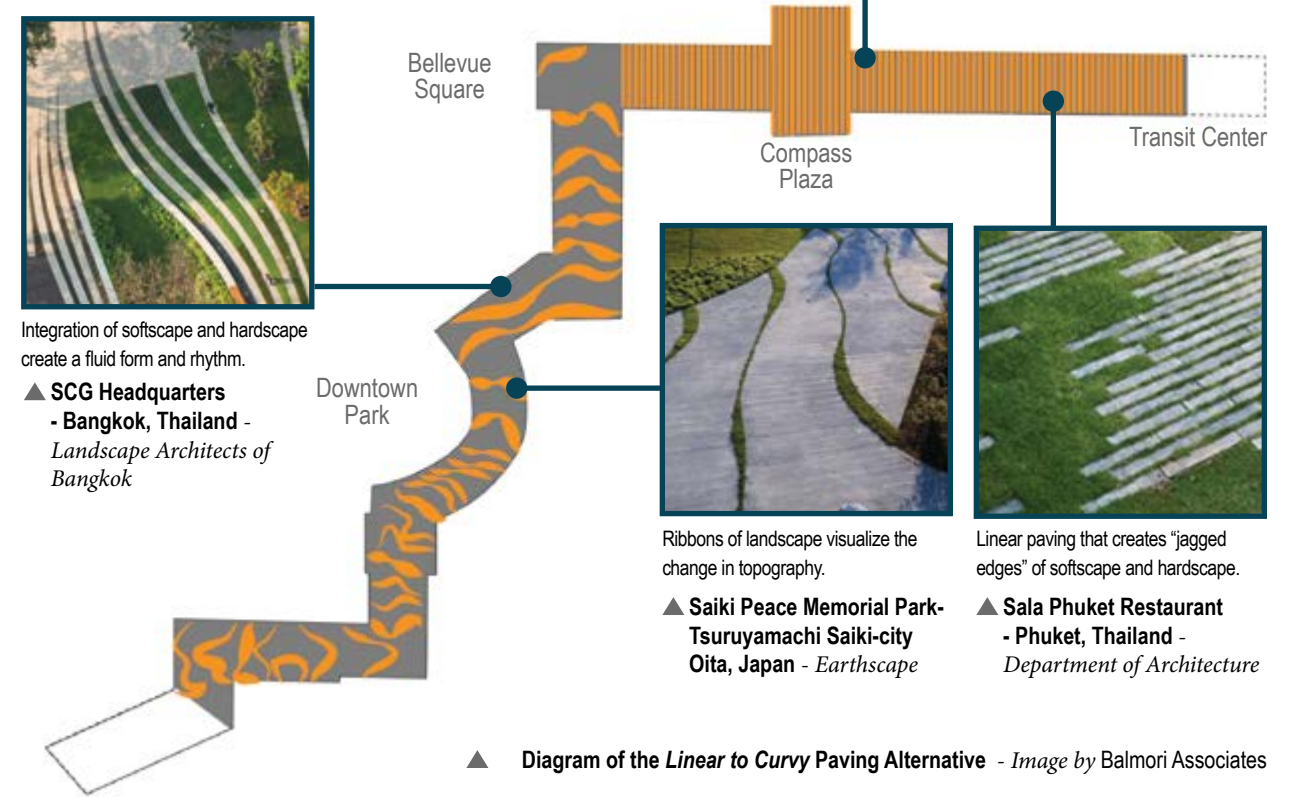
Seating and other urban amenities are woven into the linear softscape and hardscape.

◀ **Beiqijia Business Technology District - Beijing, China** - Martha Schwartz Partners



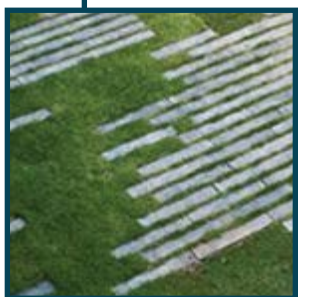
Integration of softscape and hardscape create a fluid form and rhythm.

▲ **SCG Headquarters - Bangkok, Thailand** - Landscape Architects of Bangkok



Ribbons of landscape visualize the change in topography.

▲ **Saiki Peace Memorial Park - Tsuruyamachi Saiki-city Oita, Japan** - Earthscape



Linear paving that creates “jagged edges” of softscape and hardscape.

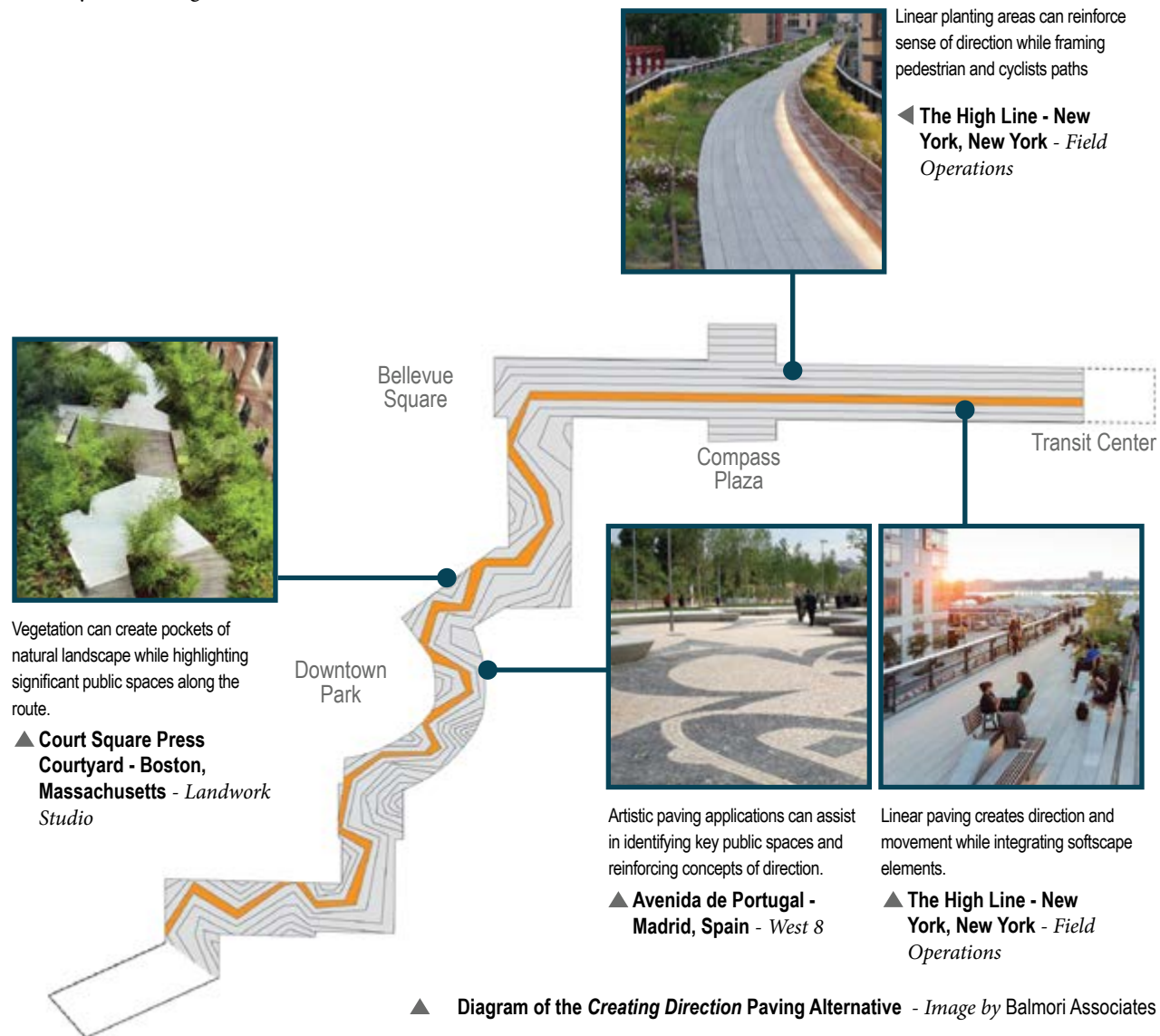
▲ **Sala Phuket Restaurant** - Phuket, Thailand - Department of Architecture

▲ **Diagram of the Linear to Curvy Paving Alternative** - Image by Balmori Associates

### Option 3 - Creating Direction

This paving option seeks to create a directional ribbon of movement on the corridor. The linear pattern echoes the more rigid urban environment of Downtown. Similar to Option Two the ribbon begins to respond to the landforms, visualizing the topography through the form of the ribbon. The ribbon could have a distinct paving pattern or color, serving as a central spine to the aesthetic, and complemented by over patterns, styles, and vegetation.

Colored paving, art, planks, and lighting can assist in reinforcing the linear movement of Downtown. Like Options One and Two, opportunities would exist to allow vegetation and urban amenities to pierce the more rigid form. As the ribbon becomes more dynamic in form it creates opportunities for irregular and unique forms for urban amenities and vegetation.



## Next Steps: Paving Strategies

- Select a preferred paving option: *Linear to Free*, *Linear to Curvy*, or *Creating Direction*.
- Refine paving strategies to respond to specific locations and context.
- Develop a material and color palette.
- Develop locations and styles for urban amenities such as seating, lighting, and integrated art installations.
- Coordinate with private developments and City projects to realize visioning and maximize opportunities for implementation.

# Vegetation and Sustainable Infrastructure

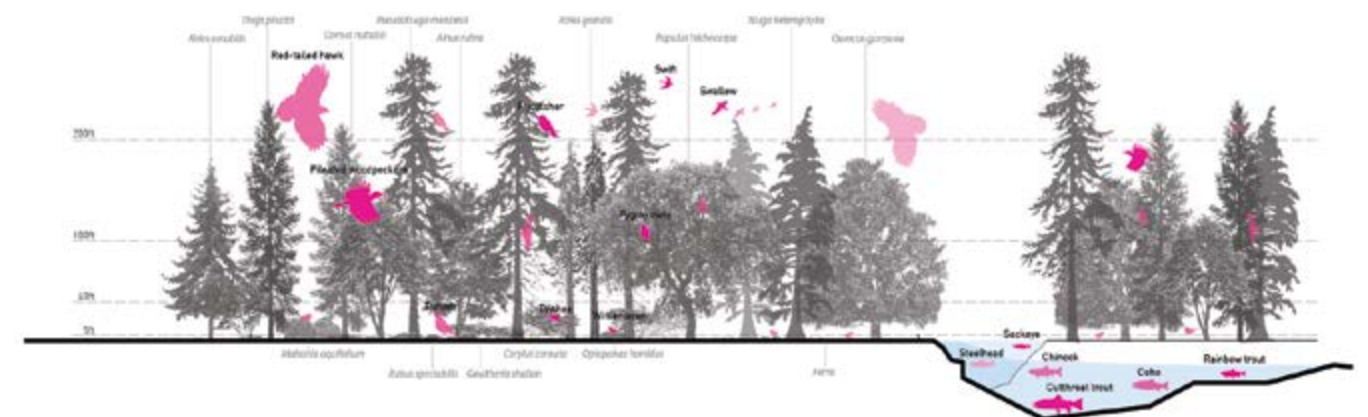
## Vegetation and Landscaping

Bellevue is known as the “City in a Park.” Increasing the presence of the natural landscape in the urban context of Downtown Bellevue was approached as an essential strategy. In addition to improving the presence of street trees and other standard urban applications of vegetation, the recommendations seek to infuse more of the Pacific Northwest’s natural habitat while creating moments that provide respite from the urban environment.

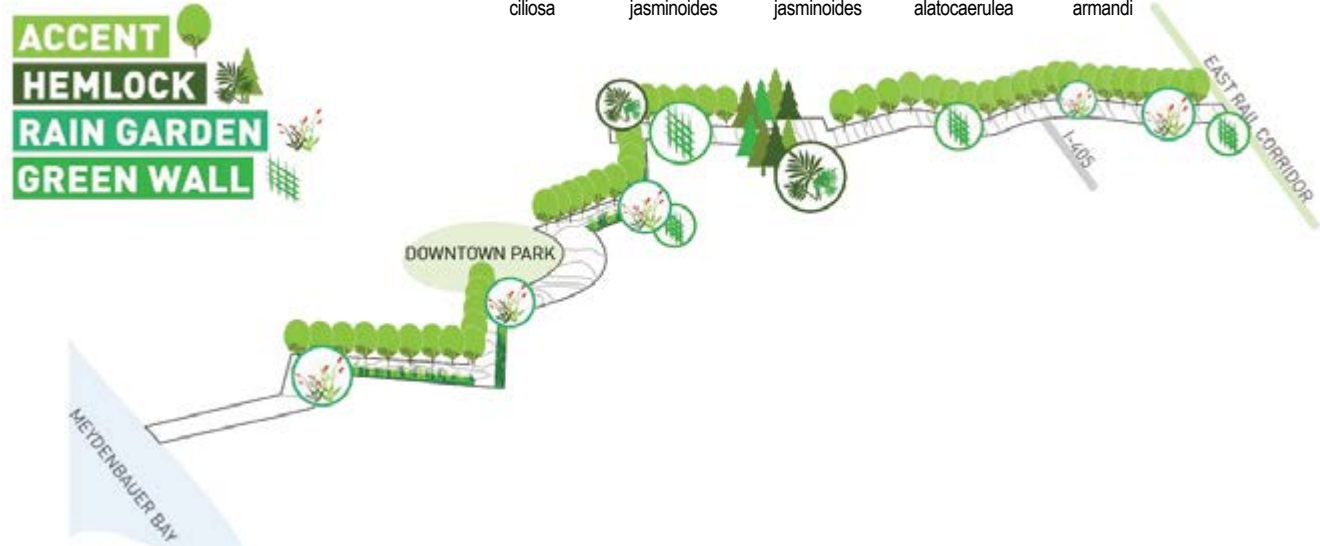
Responding to context, key locations were identified for specific vegetation and planting strategies that would create opportunities for gateways, respite, and overall enhancement and improvement of the environmental performance and aesthetic of the route. Each of these strategies would build upon some of the existing successes of increasing the presence of the natural landscape in Downtown Bellevue.

The design team has recommended a palette of vegetation to create a consistent aesthetic with accent trees. As part of the Compass Plaza recommendation (See Chapter 8 - *Redefining Public Spaces*), a Hemlock grove is proposed to create an opportunity for respite from the urban environment that would include a regional showcase of vegetation.

Accenting the route are a number of strategies such as rain gardens and bio swales that would create diversity and improved sustainability performance of streetscapes along the route. At key locations, including the intersection of NE 6th Street and Bellevue Way, the intersection of the Pedestrian Corridor and 108th Avenue NE, and the intersection of NE 6th and 112th Avenue NE would be trellis or green walls. These features would create a sense



▲ **Ecoregion Species** - Image by Balmori Associates



▲ **Planting Palette** - Image by Balmori Associates

## Energy and Sustainable Infrastructure

The design team discovered opportunities in several of the cohesive design strategies to serve a dual function. Strategies such as weather protection, vegetation, and the incorporation of new infrastructure create opportunities for water detention, filtration, and reuse, as well as nodes for energy creation and distribution.

Considering the change and topography and the route's connectivity to Meydenbauer Bay, the design team identified an opportunity to combine proposed landscape and vegetation improvements as a means to filter, detain, and reuse water. The recommendation identifies key locations along the route where rain gardens can provide infiltration by capturing the natural flow of stormwater as it moves towards the bay.

The team also proposed a purple pipe system that could detain water for reuse and ultimately feed into Sturtevant Creek in the Wilburton Commercial Area. Locations identified for detention and reuse could incorporate strategies of art and other installations that could educate residents and visitors on the performance of the system and the natural environment.

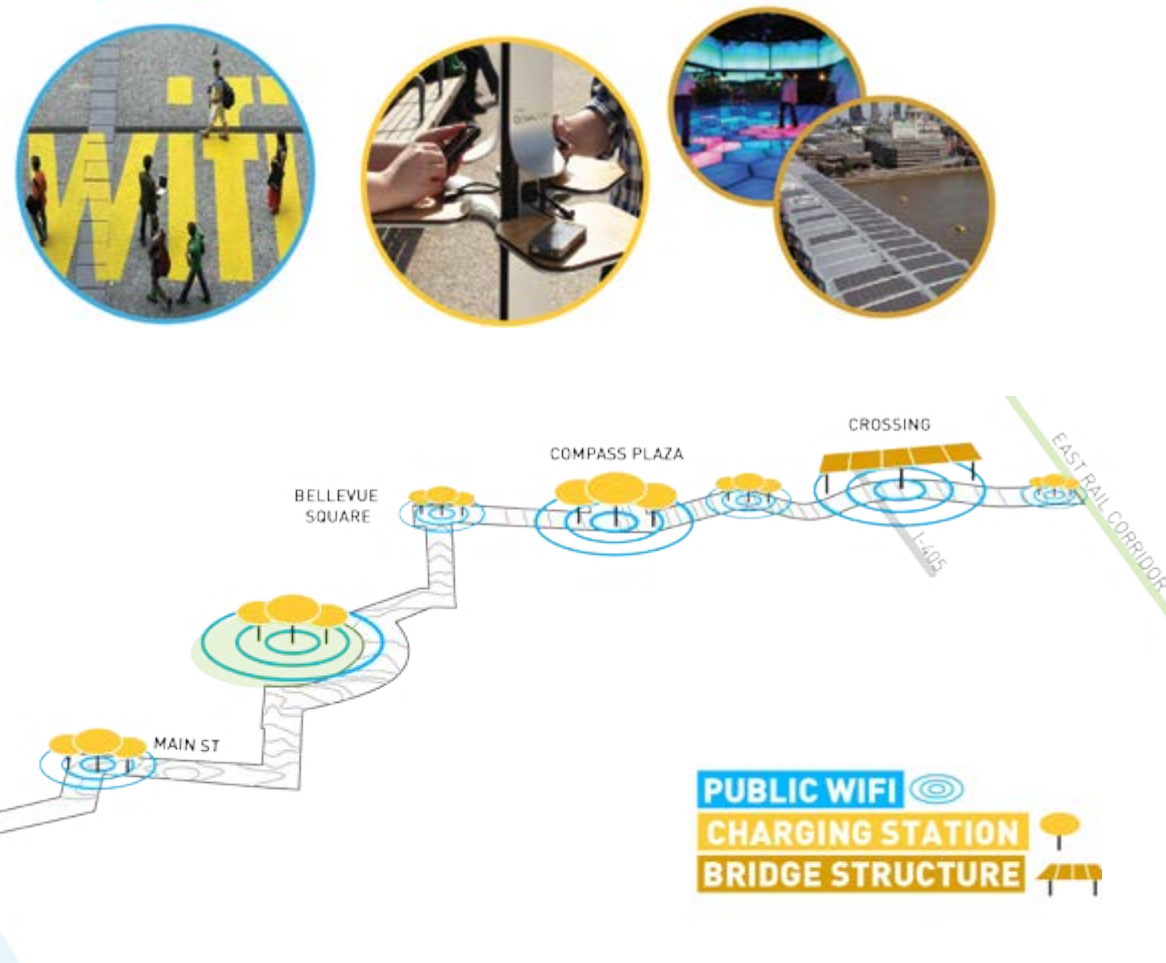


▲ **Sustainable Water Strategy** - Image by Balmori Associates

## Energy and Infrastructure

The design team identified opportunities for weather protection to serve a multi-functional purpose by generating and distributing energy. As part of the weather protection strategy, key locations could incorporate solar panels that could then redistribute power at stations for charging or to enhance the City wifi system. As a high-tech city, these multi-functional designs can ensure that Bellevue’s residents and work force can remain connected, while also serving as a public asset.

The Interstate 405 crossing will be a significant infrastructure improvement for the city and presents a number of opportunities to serve as sustainable infrastructure. These elements are further discussed in Chapter 9.



Energy Production and Distribution Strategy - Image by Balmori Associates

## Next Steps: Vegetation and Sustainable Infrastructure

- Identify locations for landscape and vegetation improvements consistent with the recommendations and City plans.
- Explore the feasibility of the sustainable water strategy, including collaboration and timing with other City departments and planned improvements.
- Explore the feasibility of using recycled rain water as part of the sustainable water strategy and other City initiatives.
- Coordinate the energy and infrastructure strategy with weather protection improvements.

## Weather Protection

The rainy season of the Pacific Northwest can impact outdoor activity and the ability to activate the Grand Connection route. During interviews with participants at the food trucks and Compass Plaza, many respondents expressed an interest and desire for weather protection and other features to ensure that the public spaces and the overall route of the Grand Connection remained usable even in the rainy months.

While making outdoor spaces more usable during the rainy months, weather protection can also serve as an opportunity to identify significant public spaces, programming, and to provide a cohesive design aesthetic. Cohesion can be achieved through color as well as form allowing weather protection to serve different purposes and take different forms but still provide a consistent aesthetic quality that is identifiable to the route.

These opportunities include:

- **Linear Installations:** Linear weather protection installations offer an opportunity to strengthen the sense of direction and movement while making narrow public spaces more usable in inclement weather. Linear installations can also include the improvement of existing building canopies and marquees.
- **Single Installations:** Single installations are intended to highlight strategic and significant public spaces such as play areas, outdoor seating, or programmable features such as festivals and performances. Additionally, they provide a sense of enclosure or the feeling of an “outdoor room”

for flexible and more intimate uses. In addition to single installations these could include pavilions that can serve as forums for seating, markets, performances, and exhibitions.

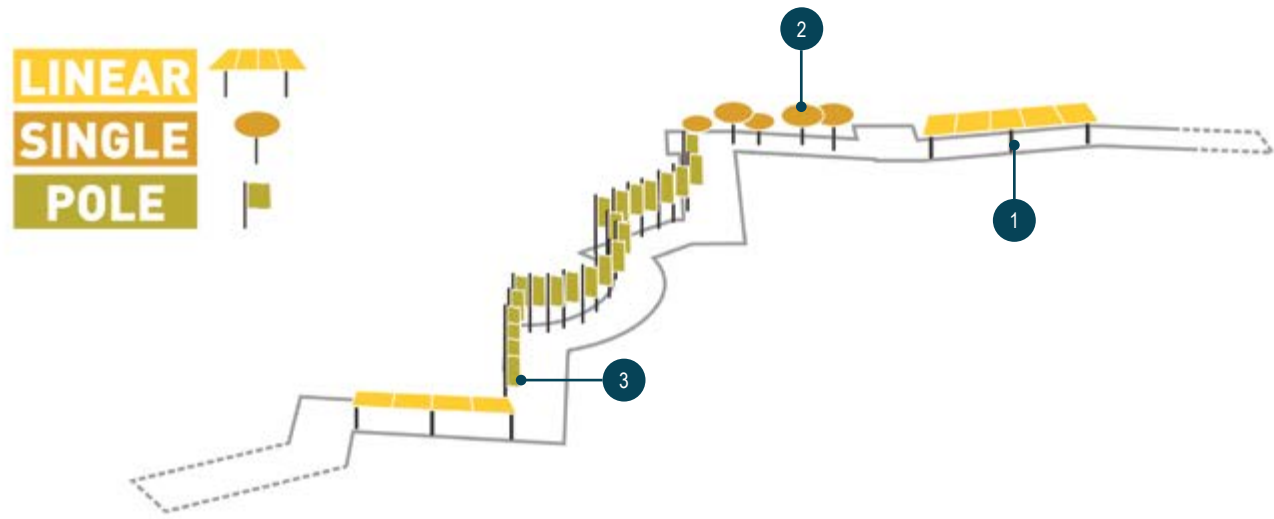
- **Pole Installations:** Pole installations are not intended to serve as weather protection, but to provide design cohesion between the important linear and single installation moments. These can include aesthetic enhancements, artistic installations, and banners that enhance the aesthetic quality and continuity of the weather protection strategy.



▲ North End Park - Boston, Massachusetts - Gustafson Guthrie Nichol and Crosby Schlessinger Smallrid



▲ MPavilion - Melbourne, Australia - Sean Godsell Architects



1 Linear weather protection creates opportunities to highlight important segments of the route.

2 Single canopy installations can highlight important public spaces, programming, and uses. Single installations can be used for playgrounds, outdoor seating areas, and other locations to ensure year round use and activity these can also include pavilions.

3 Banners and pole installations can create an aesthetic bridge between linear and single location weather protection installations to provide aesthetic continuity.



▲ Cielos y Suelos de Badajoz, Spain  
- bRijUNi Arquitectos



▲ Indigo Playground - Beijing, China  
- Ballistic Architecture Machine (BAM)

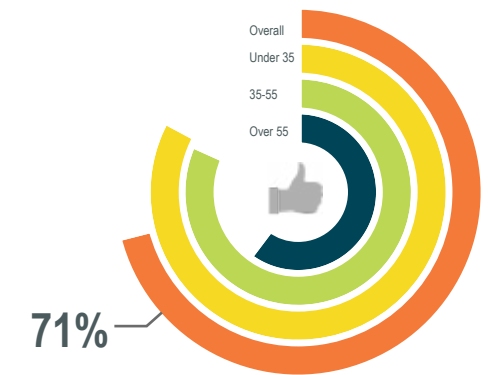


▲ H Street - Washington, District of Columbia



◀ Example of artistic installation also serving as weather protection - *The Sequence* by Arne Quinze

### Art Survey Rating



## Next Steps: Weather Protection

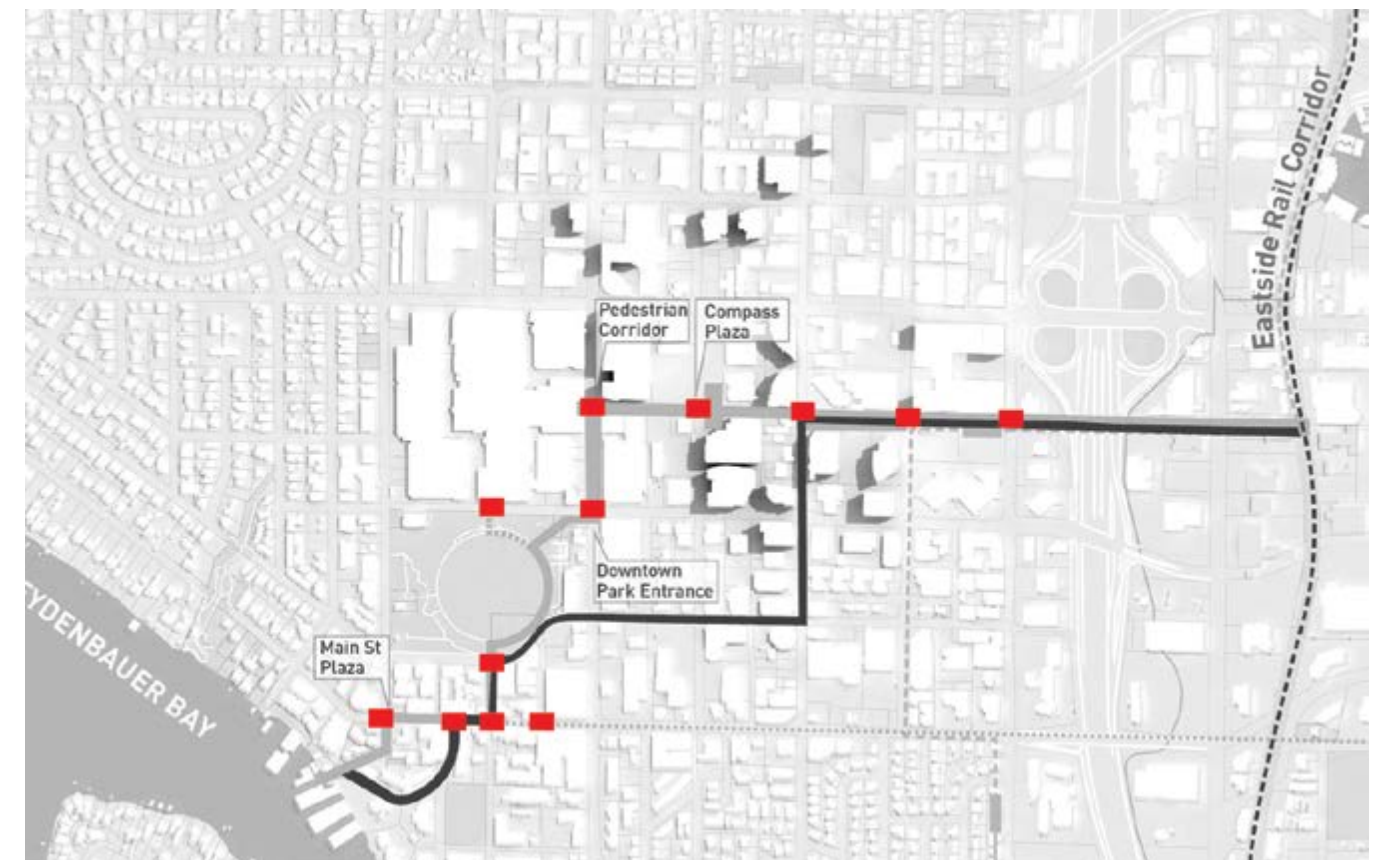
- Identify and refine specific locations for each of the weather protection strategies.
- Develop a consistent aesthetic element that can be applied to each category of the weather protection strategy.  
*Ex. Color, material, form, etc.*
- Identify opportunities to coordinate and collaborate with private development improvements and City initiatives.
- Consider the commissioning of artists to develop unique installations at key locations.

## Raised Intersections

Each intersection along the Grand Connection route can act as an interruption to the continuous flow of pedestrians and cyclists. They also present an opportunity to serve as important gateways and nodes to key locations such as the Downtown Park, Bellevue Transit Center, and the Meydenbauer Bay Park. As an effort to highlight their role as a gateway, and to also unify the pedestrian and cyclist connectivity and flow, the intersections were identified as a key cohesive design strategy that can improve the overall experience, aesthetic, safety, and sense of arrival.

To accomplish these goals the recommendation has been made to raise each intersection along the route to be flush with the adjacent curbs and sidewalks. The City has planned to raise several of the existing intersections, and by raising all intersections on the route it will create a unified strategy.

The raised intersections would be accomplished by following the principles of the National Association of City Transportation Officials (NACTO) recommendations. Raised intersections hold a variety of benefits including reducing speeds of drivers exceeding the speed limit and encouraging awareness and yielding to pedestrians.



▲ Raised Intersection Locations as Part of the Downtown Transportation and Plan and Expanded - Image by Balmori Associates

Combined with other elements such as bollards, raised intersections create a safe and comfortable environment for pedestrians while causing minimal to no interruption of vehicle movements.

The raised intersections also create an opportunity to establish an aesthetic character that reflects the surrounding context and establishes a continuous aesthetic along the entire Grand Connection route. This aesthetic enhancement could be achieved through paving patterns and color, and through the application of artistic treatment.

The recommendation is to create a material language that complements the selected pedestrian paving, while providing flexibility for artistic treatments such as thermal plastic coverings and temporary painting that can be applied for seasonal, special event, and temporary opportunities.

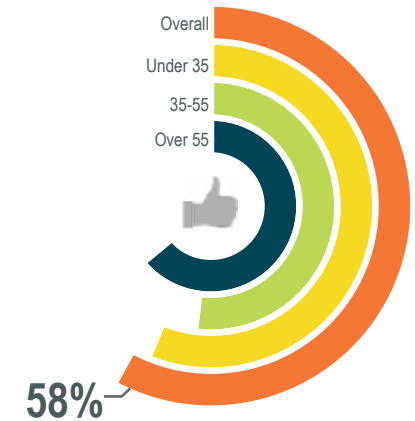


▲ **Standard Raised Intersection** - Image by National Association City Transportation Officials (NACTO)



▲ **Example of an Aesthetically Improved Raised Intersection** From the Grand Connection Art Survey - Rochester, New York

### Art Survey Rating



## Did you know? Raised Intersections:



**85th percentile** vehicle speed **decreases by 2 mph**



Exposure risk for pedestrians **decreases by 28%**



Estimated **\$1.7 million** saved over three years in direct and indirect costs



Vehicle **volumes** are not **affected**

Source: *Pedestrian Safety through a Raised Median and Redesigned Intersections - Plainsboro, New Jersey* by Michael King, 2003 Transportation Research Board Annual Meeting. [http://nacto.org/wp-content/uploads/2015/04/pedestrian\\_safety\\_through\\_raised\\_median\\_redesigned\\_intersections\\_king.pdf](http://nacto.org/wp-content/uploads/2015/04/pedestrian_safety_through_raised_median_redesigned_intersections_king.pdf)

## Next Steps: Raised Intersections

- Explore adopting remaining intersections as part of City's *Downtown Transportation Plan* Exceptional Intersections program.
- Continue to pursue grant funding opportunities such as the 106th Avenue NE at NE 6th Street intersection project currently in design.
- Develop an aesthetic quality that is either cohesive to the route, or contextually unique through paving strategies, artistic installations, or other methods.