

TOLT AVENUE ACTION PLAN

CITY OF CARNATION

PREPARED BY:

SvR DESIGN COMPANY

MAKERS ARCHITECTURE AND URBAN DESIGN

HEFFRON ENGINEERING

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CREDITS

Carnation City Council

Jim Berger – Mayor
Fred Bereswill
Lee Grumman
Mike Flowers
Erin Chaimberlain

Carnation City Manager

Ken Carter

Carnation City Planner

Linda Scott

Technical Stakeholders

Carnation-Duvall Police Department, Glenn Merryman
City of Carnation Public Works Superintendent, Bill Ferry
Eastside Fire and Rescue, Kelly Refvem
King County Department of Natural Resources & Parks,
Alan Sinsel
King County Metro Transit Planner, Colin Drake
Puget Sound Energy, Rebecca Nicholas
Riverview School District, Jenny Bullard
Snoqualmie Tribe, David Steiner
Washington State Department of Transportation, Barbara
Briggs

Prepared By

SvR Design Company
Nathan Polanski, PE
Makers Architecture and Urban Design
Heffron Transportation, Inc.

Community Stakeholders

Bill Pritchard
Dan Acker
Jamie Burrell
Jeff Hutchison
Jennifer Resler
Jim Berger
M'Liss Moon
Marc McGinnis
Mike Minaglia
Mimi Berger
Toby Maloy
Tommy Vondra

Business Stakeholders

Susan Miller, Sno-Valley Senior Center
Fran Carlson, Sno-Valley Senior Center
Amara Oden, Sno-Valley Senior Center
Lorraine Hummel, Tolt Self-Storage
Kirsten Burt, Lazy K's
Robert Cox, R. Investments Co.
Bob Carter, Carnation IGA
Syd Severe, Business Owner
Pat Grady, Coldwell Banker
Ann Wassink, Carnation Corners
Carey Tremaine, Tolt Investment Co.
Roberta Yoshimura, Property Owner
Bill Fratzke, Ixtapa
Lee Grumman, Miller's
Bob Cox, Ace Hardware
Kathleen Allen, Mother and Child Natural Medicine
Tod Johnson, Tolt Laundry Co.
Sandy Hansen, Sandy's Espresso
L. T. Robinson, Robinson Ent.
Rick Pezzner, Laptop Realty
Kim Lisk, Kiss Consignment



EXECUTIVE SUMMARY

This Action Plan will guide the city in the future redevelopment of the public right-of-way along Tolt Avenue and can be used to execute the City's 2030 vision. The plan includes a mile and a half of street improvements along Tolt Avenue that extend from Tolt Hill Road to NE 60th Street as well as off-street wayfinding improvements to support community and project goals. The Action Plan includes:

- The final concept plan for the Tolt Avenue corridor, including a summary of the process used to develop the plan,
- Recommended sequencing to achieve the city's vision, and
- Anticipated project costs and funding strategies.

The plan was developed during a year-long process designed to engage community members and project stakeholders. The process included gathering existing data, establishing a vision, exploring concepts, and defining a preferred alternative. During this process the community, working with project stakeholders, established a set of guiding principles to create a corridor that is Safe, Welcoming, Authentic, Placemaking, Cohesive, and Maintainable. From this process a final concept was developed that:

- Protects and improves non-motorized movement through the corridor,
- Improves wayfinding and access to downtown, and
- Creates a downtown that is a community destination.

Sequencing and Implementation

The Action Plan prioritizes proposed improvements into a series of manageable projects that:

- Allow the city to incrementally construct the long term vision and limits interruption to existing operations.
- Capitalize on project goals and aspirations.
- Maintain a long-term vision for the corridor.
- Take into consideration operational and economic limitations that may facilitate, or limit, plan execution (e.g. streetscape improvements are identified as a combination of full street reconstruction and retrofit projects).
- Can be implemented over a full section of the corridor to provide an immediate impact for Tolt Avenue users and to strengthen applications for funding.
- Integrate utility infrastructure into the street improvements (e.g. power undergrounding and storm drainage).

Several strategies are proposed to achieve these goals. The most transformative is the proposed **Tolt Avenue Greenway**, a shared-use path that runs along the east side of Tolt Avenue from open space, parks and schools at the north and south entryways straight into the heart of downtown. The Greenway will provide a safe, low-speed path that allows people to explore Carnation, and clearly signals that Tolt Avenue— and by extension the town—is safe for everyone. In downtown, full streetscape improvements will maintain on-street parking and provide wider sidewalks, more pedestrian interest and small

gathering spaces that make downtown feel like a place where people belong. Additional wayfinding projects support streetscape improvements and help visitors discover where they are, where they'd like to go, and how to get there.

The Action Plan identifies and categorizes projects according to how they relate to downtown Carnation, including transitions into Carnation, and how each project achieves overall project goals. Organized from south to north, the projects include:

- **Starter Projects:** Small projects to show early advancement toward project goals.
- **Tolt Hill Road Intersection:** Traffic signal at Tolt Hill Road and Tolt Avenue.
- **Tolt River Bridge:** Paint, sign, and light bridge to create a southern gateway.
- **South Greenway:** Shared-use path along east side of Tolt Avenue between the bridge and Entwistle Street.
- **South Entry:** Street improvements across from the Greenway between Tolt Middle School and Eugene Street.
- **Central Business District (CBD):** Full street improvements between Eugene Street and Rutherford Street.
- **Bird Street:** Create shared civic space on Bird Street between the alley west of Tolt Avenue and Stossel Avenue.
- **North Greenway:** Shared-use path along east side of Tolt Avenue between Rutherford Street and 55th Street.
- **North Entry:** Central median gateway and west side street improvements across from the Greenway between Rutherford Street and 55th Street.
- **Walkway 55th to 60th:** Provide a pedestrian walkway on the east side of Tolt Avenue between 55th Street and 60th Street.
- **Wayfinding Design:** Create design standards for future wayfinding.
- **Wayfinding Loop Paths:** Sign local paths for recreation and exploration.
- **Wayfinding En-Route Markers:** Small-scale wayfinding in the downtown core.
- **Larsen Avenue and Alley Circulation:** Not included in the Tolt Avenue Action Plan but important to achieve long-term project goals.



In general the highest priority for project implementation is to improve non-motorized access and wayfinding to and from downtown and to improve the downtown streetscape. Proposed projects are grouped in four separate tiers: Starter projects, First Tier projects, Second Tier projects, and Opportunistic projects.

- **Starter projects** are small-scale projects that still achieve advancements towards overall project goals. Some of these projects can be constructed as a part of First or Second Tier projects, but in general have an opportunity to provide immediate benefits with limited financial investment.
- **First Tier projects** are larger scale projects phased to realize major project goals and set the foundation for future improvements and development along Tolt Avenue. These projects establish the Tolt Avenue Greenway, create a destination in downtown Carnation, and address wayfinding along Tolt Avenue.
- **Second Tier projects** are lower priority and support First Tier projects. In some cases the existing infrastructure along Tolt Avenue can provide adequate functional needs until Second Tier projects are constructed. Financial investment in these projects is recommended after First Tier projects have been completed.
- **Opportunistic projects** are stand alone projects that are more successfully pursued through joint partnership with another agency or stakeholder. These partnerships will help to stretch City resources and funding. These projects should not be completed at the financial expense of First Tier projects.

A graphic representation and summary of the Action Plan is shown on the following pages. This summary documents the rationale, location, description, project tier, project type (e.g. retrofit, full construction, etc.), anticipated cost, and guiding principles that are achieved with each project. Additional project-specific information is included in the Implementation Projects section of the Action Plan and includes: project objectives, anticipated stakeholder coordination, design considerations and funding opportunities.

This Action Plan provides a strong, resilient, community-led vision for the future of Carnation. It includes direction and sequencing for the long term and a blueprint for community transformation that works with the City's Economic Development Strategic Action Plan to make a safer, vibrant and welcoming Carnation for all.

RATIONALE

Start with these to show quick progress.

Do the greenway early as it will be a dramatic change that spurs private investment.

Renovate the CBD to smoothly transition the greenway and provide visitor amenities.

Continuing the greenway to the north completes the bike route through town, unifying Tolt Ave.

Wayfinding design should be done on its own or in conjunction with any 1st tier project.

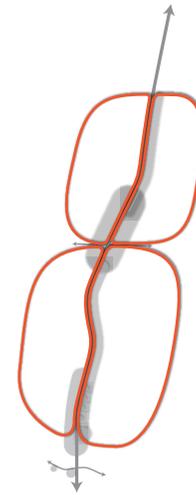
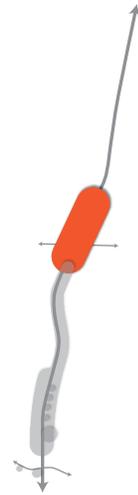
With wayfinding designed, installing the devices on Loop Paths connects Carnation to recreational activities.



now
STARTER



5-10 years
FIRST TIER



GUIDING PRINCIPLES

STARTER PROJECTS

Early and easy advancement toward goals, e.g., Burmashave signs

Small and simple

<\$10,000



SOUTH GREENWAY

Shared-use path along east side of Tolt between bridge and Entwistle St

Retrofit

\$5,250,000 - 6,420,000



CBD

Full streetscape improvements from Eugene St to Rutherford St

Full construction

\$6,080,000 - 7,450,000



NORTH GREENWAY

Shared-use path along east side of Tolt from Rutherford St to 55th St

Retrofit

\$2,800,000 - 3,440,000



WAYFINDING DESIGN

Create design standards for future wayfinding

Wayfinding

\$63,000 - 77,000



LOOP PATHS

Sign local paths for recreation and exploration

Wayfinding

\$81,000 - 100,000



Guiding Principles Key

- Safe
- Authentic
- Cohesive
- Welcoming
- Placemaking
- Maintainable

ACTION PLAN SUMMARY



RATIONALE

Building on greenway improvements, these enhance the west side pedestrian network.

Creates gateway and the northwestern pedestrian network may be completed with redevelopment.

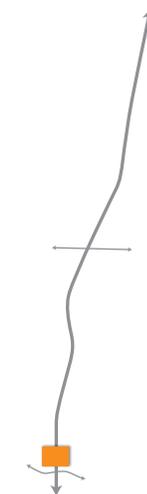
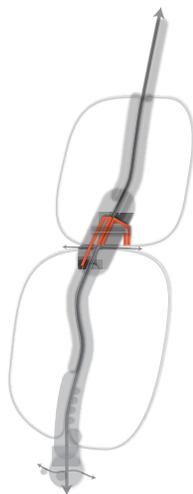
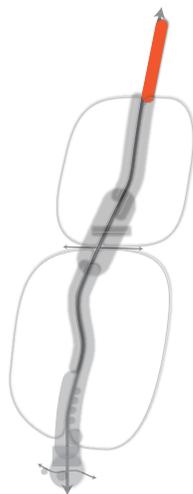
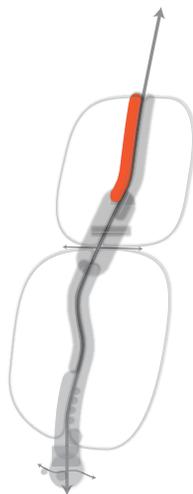
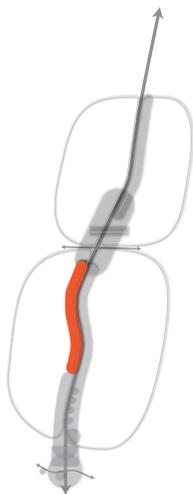
If Carnation extends further north, a sidewalk to 60th Street becomes more important.

En-route markers emphasize routes that have become more important after all the other improvements.

Beneficial at any point, and no other projects are dependent on it happening.

Dependent on WSDOT bridge maintenance schedule and does not affect timing of other projects.

This would benefit the downtown at any point, but must be considered with the CBD project.



10-15 years

SECOND TIER

OPPORTUNISTIC PROJECTS: DEPENDENT ON FUNDING AVAILABILITY (NOT TIME SPECIFIC)

GUIDING PRINCIPLES

SOUTH ENTRY

Street improvements across from greenway from middle school to Eugene St

Retrofit

\$1,460,000 - 1,800,000



NORTH ENTRY

Construct central median gateway and west side street improvements from Rutherford to 55th

Retrofit

\$2,330,000 - 2,860,000



WALKWAY TO 60TH

Provide a pedestrian walkway on east side of Tolt from 55th St to 60th St

Retrofit

\$230,000 - 290,000



EN-ROUTE MARKERS

Small-scale wayfinding in the downtown core

Wayfinding

\$7,000 - 10,000



TOLT HILL INTERSECTION

Traffic signal

Retrofit

\$650,000 - 810,000



TOLT RIVER BRIDGE

Paint, light, and sign bridge

Retrofit

\$1,690,000 - 2,070,000



BIRD STREET

Create shared civic space between the alley west of Tolt and Stossel Ave

Full construction

\$1,610,000 - 1,780,000



Guiding Principles Key

- Safe
- Authentic
- Cohesive
- Welcoming
- Placemaking
- Maintainable





Existing Tolt Avenue roadway in downtown Carnation.

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INTRODUCTION

Washington State Route 203 (SR 203) is a managed access state highway that becomes a city street, Tolt Avenue, within Carnation's city limits. The state highway functions as a corridor, with a priority to move vehicles, goods and people through the region. However, the corridor must also function as Carnation's main street, the economic center and core of the community, providing access to local destinations and businesses. Today's Tolt Avenue effectively plays the role of state highway but lacks the infrastructure and character to serve the local community.

PAST EFFORTS

In 2004 the Puget Sound Regional Council (PSRC) completed a conceptual corridor plan for SR 203 between Fall City and Monroe. This planned for the needs of rural cities along SR 203, recognizing their importance to the region's long term economic, growth and transportation strategies. Elements of this plan common to communities along SR 203 included improvements to non-motorized (pedestrians and bicycles) systems, town entries and transition zones, in-town circulation, and streetscape elements. Within the City of Carnation recommended actions focused on pedestrian and safety improvements and have been constructed since the completion of

the report (traffic signal at Entwistle Street, sidewalk connection and street crossing at Tolt Middle School, curb bulbs, etc.).

Over the past several years updates to Carnation's Comprehensive Plan and the Economic Development Strategic Action Plan have brought community goals and objectives in line with future planning and development. Recent updates have included changes to the City's land-use, transportation, parks and recreation, and utilities elements. Included in these updates were goals to enhance community gateways, create an attractive pedestrian environment and enhance the public streetscape with trees and vegetation.

The plan outlined in this document builds upon these past efforts and focuses attention on the Tolt Avenue corridor to set a comprehensive 2030 vision for Tolt Avenue and provide an Action Plan for implementation and funding.



Members of the public and the design team work together to identify issues and opportunities along the corridor.

WHAT IS THE ACTION PLAN?

The Action Plan will guide the city in the future redevelopment of the public right-of-way along Tolt Avenue. The Plan provides guidance that can be used to execute the City's 2030 vision and establishes a strategy to target funding. The Action Plan includes:

- The final concept plan for the Tolt Avenue corridor, including a summary of the plan development process.
- Recommended sequencing to achieve the city's vision.
- Anticipated project costs and funding strategies.

Recommended sequencing for the Action Plan is identified through a series of projects arranged to capitalize on project goals and aspirations and maintain a long-term vision for the corridor.

PROCESS

The process for developing and vetting a vision for the Tolt Avenue Action Plan was designed to keep stakeholders and community members actively engaged and involved throughout the process. The process was divided into five phases: Gathering Data, Establishing a Vision, Exploring Concepts, Defining a Preferred Alternative and Developing the Action Plan.

GATHERING DATA

For the design team, the first step was ensuring a solid understanding of the corridor's existing conditions, goals and context. Working with the City staff, the team obtained and compiled a series of basemaps, as well as a dossier of information relating to SR 203 and Carnation's position in the Snoqualmie Valley. The team also conducted formal and informal site reconnaissance efforts along the corridor, watching how the community used the street and exploring the character of the surrounding landscape, including Duvall, Snoqualmie, Remlinger Farms, Tolt-MacDonald Park and the Snoqualmie Valley Trail.

The team also sought local knowledge from members of the community through initial public outreach meetings. These meetings were used to confirm the project's goals and guiding principles with community members and City

leaders. Two important community constituencies emerged from this process: community stakeholders and business stakeholders. Community stakeholders represented various community interests, while business stakeholders specifically represented business and land owners along SR 203. Each of these groups became liaisons between the design team and the broader community.

Working with both of these groups, a set of draft Guiding Principles was developed for the project that would be vetted and refined, and which would ultimately become a yardstick for measuring project success. These Guiding Principles are as follows:

- **Safe:** Providing all users with safe, comfortable access to the City's many destinations.
- **Welcoming:** Supporting and encouraging visitors to explore Carnation's downtown.
- **Authentic:** Building on Carnation's assets by embracing agriculture and honoring the River.
- **Placemaking:** Creating a unified, connected experience along the Tolt Avenue corridor.
- **Cohesive:** Establishing a central space to serve as a city heart or town green.
- **Maintainable:** Providing maintainable infrastructure.

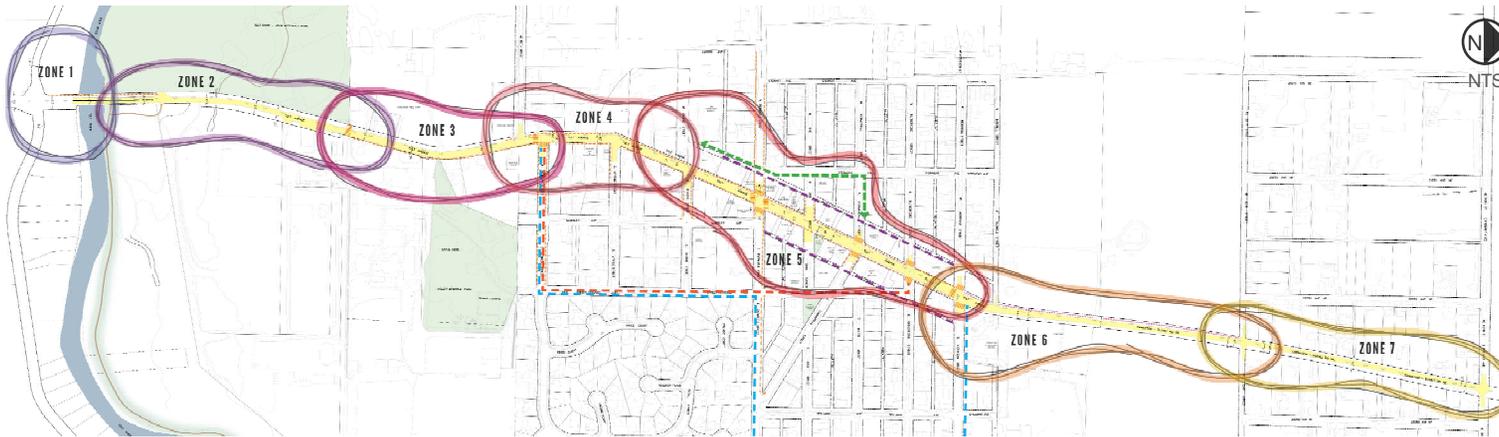


Figure 1. Zone Diagram.

At this early stage of the process, the team identified any technical stakeholders who would need to be involved in the process. Transit agencies, fire departments and first responders, the Washington State Department of Transportation (WSDOT), police and Puget Sound Energy (PSE) were all identified as important technical reviewers for proposed changes along SR 203 and became the Technical Stakeholder Committee.

ESTABLISHING A VISION

With this strong foundation, the next step was to begin to establish a vision for the corridor. The design team broke it down into seven zones that were defined by their character and land use adjacencies (see Figure 1). Opportunities and constraints were identified in each zone, and the team explored some of the ways that those challenges could be resolved through various design interventions while remaining true to the guiding principles. Areas were identified that were particular concerns for stakeholders such as undergrounding power, moving signage, controlling traffic, and providing better pedestrian access. A summary of the existing conditions zones analysis is included as Appendix A of this plan.

At the same time, the design team developed a more accurate picture of the way all modes of transportation currently use Tolt Avenue. Using traffic engineering best practices, a comprehensive picture of how users travel along the corridor revealed average speeds and fluctuations in the volume of passenger vehicle, truck, pedestrian and bicycle traffic across days of the week and times of the day. Additional traffic and parking documentation is provided in separate Transportation and Parking Technical Memorandums, included as Appendix B.

The design team also developed a series of character boards to explore what kind of visual language would be compelling for the street. Small town quaint or sleekly modern? Whimsical or refined? Agricultural-inspired or nature-themed? What kind of paving materials and site furnishings felt authentic to Carnation? How well-lit was the street going to be? Each of these questions was visually tested on a series of boards during community stakeholder meetings and public open houses. Community members voted via dots revealing initial preferences that were carried into the next phase of design.

EXPLORING CONCEPTS

With the first iteration of analysis and opportunity identification complete, in May and June 2012 the design team was able to begin sketching and designing resolutions for each section of the streetscape. Two scenarios were developed: the Big Move Option and the Tactical Option. Key elements of each of these concepts and a perspective of downtown are shown in Figure 2.

Both of these options, which are included in Appendix C, were presented to the community, businesses, technical stakeholders, and City Council for consideration, discussion and feedback. Though there were two distinct scenarios presented, participants were asked to respond to the features in each and tell the design team what qualities they liked and which they did not.

The feedback was excellent. Stakeholders were quick to identify areas that needed further reflection and refinement, but there was also a strong preference expressed for an infrastructure that created a stronger community, that was authentically Carnation and strengthened the sense of downtown as a destination. Generally, that meant a preference toward the strategies shown in the Big Move Option, but there were real concerns expressed about

pedestrian and cyclist safety at intersections, parking availability and business vitality that would need to be addressed during the final development of a preferred alternative.

DEFINING A PREFERRED ALTERNATIVE

With two bookend options reviewed with the community and technical stakeholders, the design team's challenge was to arrive at a synthesized design. The first iteration of this preferred alternative was presented to the stakeholder groups and the City Council in July 2012. At this time, the City Council asked for further exploration and options for consideration particularly for the downtown core.

The design team re-considered their approach and developed a concept for the downtown core that is presented in the Final Concept section that follows.

DEVELOPING THE ACTION PLAN

Following approval of the preferred concept, an Action Plan was developed and presented to the City Council in February 2013. The individual projects for implementation are presented at the end of this document.



TACTICAL OPTION

Continuous sidewalk on east side (zones 3-6) | on-street bicycle facility | maintains Tolt Ave parking downtown | undergrounds power through downtown | smaller tree canopy | small, opportunistic projects | consistent framework will be important

BIG MOVE OPTION

Continuous walkable area both sides (zones 2-6) | more planted areas | separated bicycle facility | parking on perpendicular streets downtown | increased activation and amenities downtown | larger tree canopy | undergrounds power along most of corridor | implementation via a few larger projects

Figure 2. Exploring Concepts.

FINAL CONCEPT

In 2030, the foothills around Carnation will still be covered in deep green forest. Salmon will still migrate up the Tolt and Snoqualmie Rivers, past anglers and campers on the shore. Fall rains will bring flooded fields, and summer sun will help ripen the fall's harvest.

These have been the constants for generations, and the Tolt Avenue Action Plan does not seek to change any of it.

Carnation will maintain its small-town feel, with safe schools, generous neighbors and passionate civic pride. But there will also be a new vitality in Carnation's downtown. School kids and seniors will activate public spaces, the farmers market will swell with residents and visitors and currently undeveloped lots will be filled with activity.

While the warmth of the Carnation community is primarily responsible for this renewal, the community's investment in transforming Tolt Avenue from a transportation corridor to a great public space will also play a key role in revitalizing downtown. It signals to residents and business owners alike that small-town America will survive and thrive in the heart of the Snoqualmie Valley.

The future vision for Tolt Avenue builds upon and strengthens this classic experience of rural America

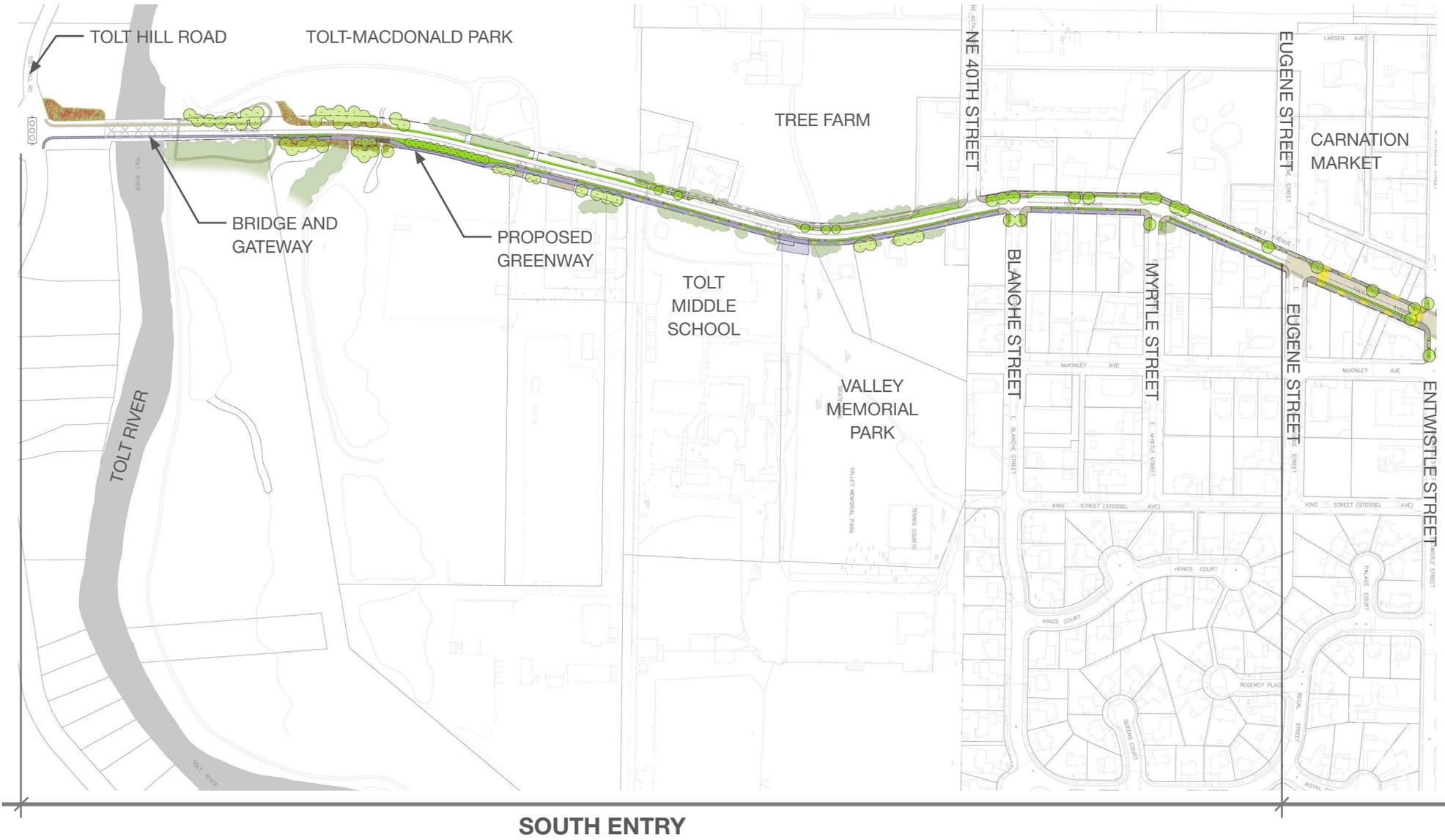
spanning the bucolic landscape of the south and north entries to the civic center of downtown. Building upon this breadth of experience is an important part of reinforcing Carnation's identity as a vibrant rural community.

Key to reimagining Tolt Avenue's role in the community is reimagining the roadway less as a corridor exclusively for vehicles and instead as a more democratic civic infrastructure, connecting all members of the community with schools, parks, libraries, civic institutions and regional destinations to the downtown core.

GREENWAY

Several strategies will be used to achieve this goal — from continuous sidewalks and narrowed lane widths to increased vegetation, green stormwater infrastructure and traffic calming — but the most transformative is the proposed Tolt Avenue Greenway, a separated pedestrian and bicycle corridor that runs along the east side of Tolt Avenue from the Tolt River Bridge to NE 55th Street (Figure 3). The Greenway is intended to serve as a low-speed, safe, beautiful and accessible way for neighbors and visitors to access the community's many existing resources. In so doing, it provides a clear, imaginable infrastructure that

Figure 3. Final Concept Plan.





NTS



CENTRAL BUSINESS DISTRICT (DOWNTOWN)

NORTH ENTRY



knits together destinations along Tolt Avenue and provides an armature for exploring the surrounding area.

In most places the Greenway will have a buffer of trees and vegetation to separate it from adjacent vehicular traffic. Users, regardless of age or ability, can walk or ride the Greenway, encountering friends, neighbors, business owners and colleagues along the way and building civic capital in those spontaneous interactions.

For vehicular cyclists, the roadway will still be the place to ride.

If the Greenway is the connective tissue, then downtown will continue to thrive as Carnation's heart: a place that symbolizes Carnation's civic ambitions, business vitality and community spirit. This important nexus will demand prioritized attention, not as a corridor but as a destination.

The current design proposal calls for a number of placemaking interventions for downtown Carnation that will enhance the City's long-term identity, competitiveness and sustainability.

Generously proportioned sidewalks in the downtown will feature pedestrian amenities like fine-scaled pavement treatments, lush plantings, streetside furnishings, street

trees at intersections and pedestrian-scaled lighting. Where the buildings meet the sidewalk, a strip of differentiated paving will define the "spill out" zone where businesses can place merchandise, signs and other private-sectors amenities to enliven the street. Short-term, on-street parallel parking interspersed with planted bioretention cells buffer vehicular traffic and create an aesthetic, accessible commercial environment.

Though not part of the Tolt Avenue Plan, the downtown placemaking should be enhanced and coordinated with transforming Bird Street into a civic center. Bird Street could be re-imagined as a flexible space able to accommodate festivals, parking, markets and other community events during different days, weeks and seasons of the year. Bird Street would also strengthen a string of pearls between the Senior Center and Fred Hockert Park.

Because the downtown area is the destination, the Greenway does not continue through this two block area. Instead, bike parking stations encourage Greenway users to hop off their rides and stroll through downtown.



GATEWAYS

At either end of the Tolt Avenue study area, gateway elements prominently announce visitors' entry into town, marking the transition into a populated area with local businesses and traveler services and signaling a need for increased driver attention and reduced speeds.

At the south end of the corridor, the Tolt River Bridge provides an ideal armature for a signature gateway element. With the community, the design team explored painting, lighting and adding welcoming signage to the bridge to announce to travelers along SR 203 that they are entering Carnation. Community members agreed that the City should work with WSDOT to select a color that boldly, but not garishly, contrasts with the natural landscape's color palette of deep greens, browns and grays to set off the bridge and announce the entry into town during the day. Low-voltage LED lighting would provide a strong, unique visual identity to the town during the evening hours.

The north end of the corridor has no existing structures that suggest themselves for re-purposing. For this area, a boulevard treatment, with central median, will help create a strong tree-lined gateway along with an overhead gateway.



POWER UNDERGROUNDING AND LIGHTING

One of the issues community members brought up early and often was a concern about the visual clutter created by overhead franchise utilities. The poles and wires detract from regional views of the landscape and businesses. The design team explored various options for undergrounding this overhead infrastructure. Options included undergrounding along the entire corridor, segments of the corridor, moving powerlines into alleys and reconfiguring wires on the corridor.

Through consultation with the community, the preferred alternative consolidates the power and franchise utilities along the southern portion of the corridor to the existing poles along the west side of Tolt Avenue, which allows for larger street trees to be planted along the east side of the street. At Myrtle Street and through downtown, the power and franchise lines go underground before re-emerging north of Morrison Street.

The lighting scheme is built off of the model lighting ordinance from the International Dark Sky Association. Aside from the south gateway at the Tolt River Bridge, which may be more prominently lit during certain times and/or



seasons, the lighting levels gradually intensify as visitors enter town. Thus the travel lanes are fully illuminated only in the downtown zone. Along the Greenway, pedestrian-scaled lighting is present through the downtown, but as one gets further from downtown lighting becomes more intermittent and acts as either pedestrian-oriented pools of light or as simple, subtle wayfinding devices that cast light ribbons or points across the Greenway.

TREES AND VEGETATION

The planting concept for Tolt Avenue builds upon existing conditions and supports project goals to create a safe, welcoming, and cohesive experience that is authentic to Carnation and the feel of a small rural community.

Trees planted along Tolt Avenue should be selected to enclose the road, slowing traffic, while strategically creating openings to the spectacular views of the surrounding hills. Larger canopy trees are recommended where sufficient overhead space and root system can be accommodated to create a natural gateway. Smaller trees are recommended for conditions under power lines. A palette of recommended trees is provided in Appendix D. Trees have been selected to provide appropriate form as

well as seasonal flowering, leaf color and/or interesting bark. Native trees such as the paper birch and western red cedar are encouraged where sufficient room and/or restoration conditions occur.

As visitors enter downtown, large trees provide visual anchors at street intersections while opening views to the facades of businesses in between. The high branching canopy of these trees will also allow views to businesses across the intersections while shading and softening the streetscape.

Understory plantings will play an important role in defining the character and cohesion of Tolt Avenue. South of the bridge plantings can be used to subtly reinforce the wayfinding goals of directing visitors to Carnation while staying simple and in keeping with the bucolic rural landscape. Plantings should enhance vegetation areas, removing invasives such as blackberry to provide soft buffers between pedestrians and cyclists along the Greenway.

A framework of evergreen and deciduous shrubs will offer year round structure while perennials and groundcovers will provide additional seasonal color and texture (see list in Appendix D). Plantings have been selected with a high priority given to those that support pollinators and enrich



ecological diversity, in keeping with the agricultural goals of the region.

Plant selection should also be used to strengthen the sequencing and definition of character areas along Tolt Avenue. Plantings that support the rural landscape coming into town would transition to more complex mixes of plantings and flower baskets in the Central Business District.

Plant materials are also recommended for green stormwater facilities that will provide multiple functions in the landscape (see Appendix D).

STORMWATER

Given the seasonal flooding in the Snoqualmie Valley, stormwater management is a significant concern and opportunity for street improvements. The City does not have a complete stormwater system and stormwater runoff from Tolt Avenue currently drains to several low points where it is collected and conveyed to small infiltration facilities or conveyed off-site. There are no water quality treatment facilities for stormwater runoff or pretreatment systems for runoff entering existing infiltration facilities.

To the maximum extent feasible, new stormwater infrastructure should be green stormwater infrastructure (GSI) such as swales, bioretention cells and porous pavements. These facilities can manage and treat runoff from existing and new road surfaces and create a beautiful streetscape filled with lush plantings while also removing pollutants from the street.

Opportunities to integrate GSI into proposed improvements are identified in the concept plan and project implementation descriptions. These opportunities should be evaluated based on subsurface soils and infiltration capacities. Additional stormwater documentation is provided in a stormwater technical memorandum included as Appendix E.

STREETSCAPE CHARACTER AND SITE FURNISHINGS

Streetscape elements of paving, light fixtures, benches, bicycle racks, trash receptacles, planters and plantings all play an important role in conveying Carnation's identity and character as well as supporting functions of safety and amenity. Streetscape elements also signal to community members and visitors that they are transitioning from the



more bucolic outskirts of Carnation into the central core of downtown. Site furnishings are minimized in the south and north entry areas, limiting lighting, as noted above, to standard street lamps and low bollards or ground level lamps along areas of the Greenway. Paving of both the street and the Greenway is asphalt with the Greenway receiving additional scoring, paint, or recessed elements to help with wayfinding.

The streetscape becomes more complex as you enter the downtown area suggesting that visitors are arriving at a destination providing amenities and services. This complexity provides the additional benefit of slowing traffic. Paving material of both the road and the Greenway changes from asphalt to concrete, signaling vehicles, pedestrians and cyclists that they are in a more urban area. Scoring and coloring of concrete could be utilized to convey a finer grain of texture, moderating speeds, and signaling that visitors are entering this multi-functional zone. Wider sidewalks allow users to comfortably pass and stop to chat as well as provide merchants, through changes in pavement scoring or materials, with outdoor space for signage, merchandise, café eating and other amenities.

Pedestrian scale light fixtures provide supplemental lighting and opportunities to hang seasonal baskets of flowers and wayfinding banners.

Site furnishings along the building facades will be an eclectic mix of benches, seating and planters provided by merchants or citizens. Civic furnishings provided by the city will include benches, litter receptacles and bicycle racks, primarily along the curbside.

The character of these pedestrian light poles and civic furnishings should be simple in design, reflecting the clean functionality of small town character, and providing long lasting and maintainable materials. Selection of furnishings should reflect Carnation's past as a rural agrarian center and Carnation's future as a sustainable and recreational hub. Civic site furnishings should work as a family of form and color providing continuity along the downtown core, leaving the eclectic elements to be provided by business owners to enliven and personalize the sidewalk. Appendix F shows examples of potential civic site furnishings and concrete paving strategies.



WAYFINDING

“Wayfinding” literally means “finding your way,” and a wayfinding system helps users do exactly that. Visitors and locals can use the wayfinding system to discover where they are, where they’d like to go, and how to get there. It is made up of signs and markers whose character reinforces Carnation’s identity. Not only does wayfinding help people find their way within town, but it lets people know that they are in Carnation, setting it apart as a distinct and unique town in the Snoqualmie Valley. Thus, wayfinding has two primary objectives: providing information and enhancing the community’s identity.

Finding Your Way

Wayfinding should be an intuitive system of signs, graphics, tactile markers, audible features, maps, and other visual cues that work together to make it easy to find locations and routes. They should be sized and located to be easily readable and give the motorist, bicyclist, or pedestrian enough time to make a decision about their route. They also announce arrival to a place, letting visitors know where they are.

Reinforcing Identity

Carnation identifies itself around a few characteristic assets: its small town feel, active recreation opportunities, outdoor setting, and surrounding agricultural activities. (Economic Development Strategy 2008-2012). The wayfinding system reinforces this identity, using visual statements to enhance the authentic feeling of Carnation by leading people to these attractions and establishing a unified graphic signature reflecting the town’s visual character. This plan includes a number of alternative graphic and design elements reflecting different but appropriate styles. In implementing the plan, the signage designer should work with the City and public participants to select a preferred signage “signature” with consistent colors, symbols, type face, materials and mounting designs to integrate new and existing wayfinding elements into a unified system.

More specifically, wayfinding accomplishes the following for Carnation:

Invites and Welcomes People to Carnation

Gateway features create a sense of entry upon arrival, welcoming visitors to Carnation. Even before entering, signs invite people in to Carnation and let people know

that there is an unthreatening way of getting around. The existing entry signs are fairly small and not prominently located, so it is hard to know when you have reached Carnation.

Clarifies Routes

The wayfinding elements provide directions to common destinations, signifying the paths to them. They make it easy to know how to get to the destination and clarify that you are on the right route. The existing street signs and many directional signs (especially by the Snoqualmie Valley Trail) are a good start on this, but some routes could be further reinforced.

Notifies Visitors of Landmarks

Maps and markers point out special places to visit (e.g., the Farmers Market, Remlinger Farms) and integrates them into the wayfinding system. The existing signs upon entry to Carnation that note local destinations are somewhat hard to read, so simplified signs with larger text may help. A kiosk exists at the Snoqualmie Valley Trail, but it does not locate destinations in Carnation, and there are no other maps or general information kiosks to help people find their way within town.

Connects Carnation With Outdoor Recreation

The wayfinding system relates circulation within the town to the Snoqualmie Valley Trail and Tolt-MacDonald Park trails. It brings outdoor recreation into Carnation and shows users how to get out to the regional recreational opportunities. Although some signs exist, this connection between Carnation and outdoor

recreation can be fortified through additional signs and clarified routes.

Encourages a Healthy, Active Lifestyle

Much of the wayfinding system is specifically for cyclists and pedestrians. Walking routes are noted on wayfinding maps and signed to encourage active activities for locals and visitors. They provide enough information (e.g., distance and approximate time of walk or bike ride) for people to make the decision to walk rather than drive. Low-level lighting may also help some paths to feel safe and pleasant for walking or bicycling even in the early morning or evening hours, encouraging more non-motorized commuting. Pedestrian paths are identified in the Parks Element and through King County Public Health, and this wayfinding system can formalize those routes.

Moderates Traffic While Increasing Safety and Circulation

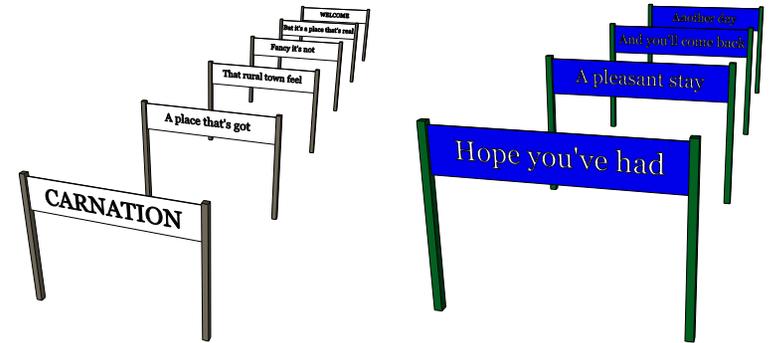
Some wayfinding elements may help to moderate traffic as motorists enter Carnation by adding vertical and visual elements at the roadway. Additionally, making it easier for motorists to locate parking and their destinations will also make Tolt Avenue safer for walking and bicycling.

To do all of the above, a variety of signs, markers, and cues must be used throughout the town in situation-specific ways. For example, announcing entry into Carnation can have a different look and feel than a sign directing a person to turn left to continue on a walking path. The different types of signs and cues recommended for Carnation are described in the following section and shown in the wayfinding plans (Figures 4 and 5).



Gateways ▲

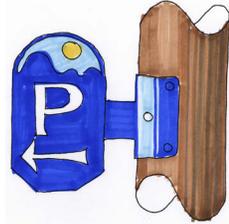
Gateways announce entry into Carnation. As discussed earlier, they signify that Carnation is a special place within the valley and the Puget Sound region. Gateways also serve as the town's welcome mat, inviting or directing travelers into Carnation at decision points.



Sequences ■ ■ ■

Visitors to Carnation travelling along SR 203 perceive the town as a sequence of experiences as they travel from open agricultural lands to the town's outskirts through (and hopefully stopping at) the downtown core and then back out to the rural valley setting. The wayfinding system can enhance and articulate this sequence by:

- Announcing Entries
- Transitioning to pedestrian scaled downtown
- Calling attention to special events with banner signs
- Communicating a message as one enters town with sequential signs
- Moderating traffic by adding vertical and visual elements at the roadway

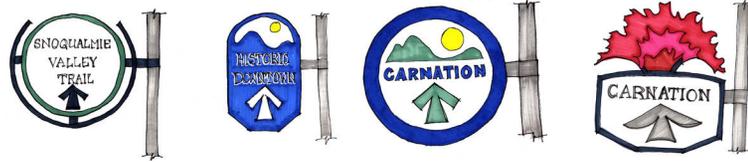


Auto-oriented Signs →

Auto-oriented directional signs are visible to auto drivers and are located at (or prior to) key intersections. On Tolt Hill Road, they encourage travelers to turn left onto Tolt Avenue, and in town, they point drivers to parking locations.

Pedestrian-Oriented Signs →

These signs announce upcoming destinations to help walkers and bicyclists decide their route. They may show the distance and walking or cycling time to the destination. They are designed for the speed of a bicyclist, so are smaller than auto-oriented signs.



En-Route Markers ○○○○○○○○

Like the directional signs, these are designed for people moving at slow speeds, so can be intricate and subtle. They provide a special aesthetic and reinforce that the user is on the “right” path. They may be paving inlays, paint, or small signs attached to existing structures.



Kiosks

Information kiosks provide maps of destinations and paths and may have community bulletin boards. They are meant to be used by walkers and bicyclists but may be visible to auto drivers. Kiosks are especially important where bicyclists are encouraged to park their bikes at the intersections of Entwistle and Commercial Streets.

Figure 4. Wayfinding Location Plan

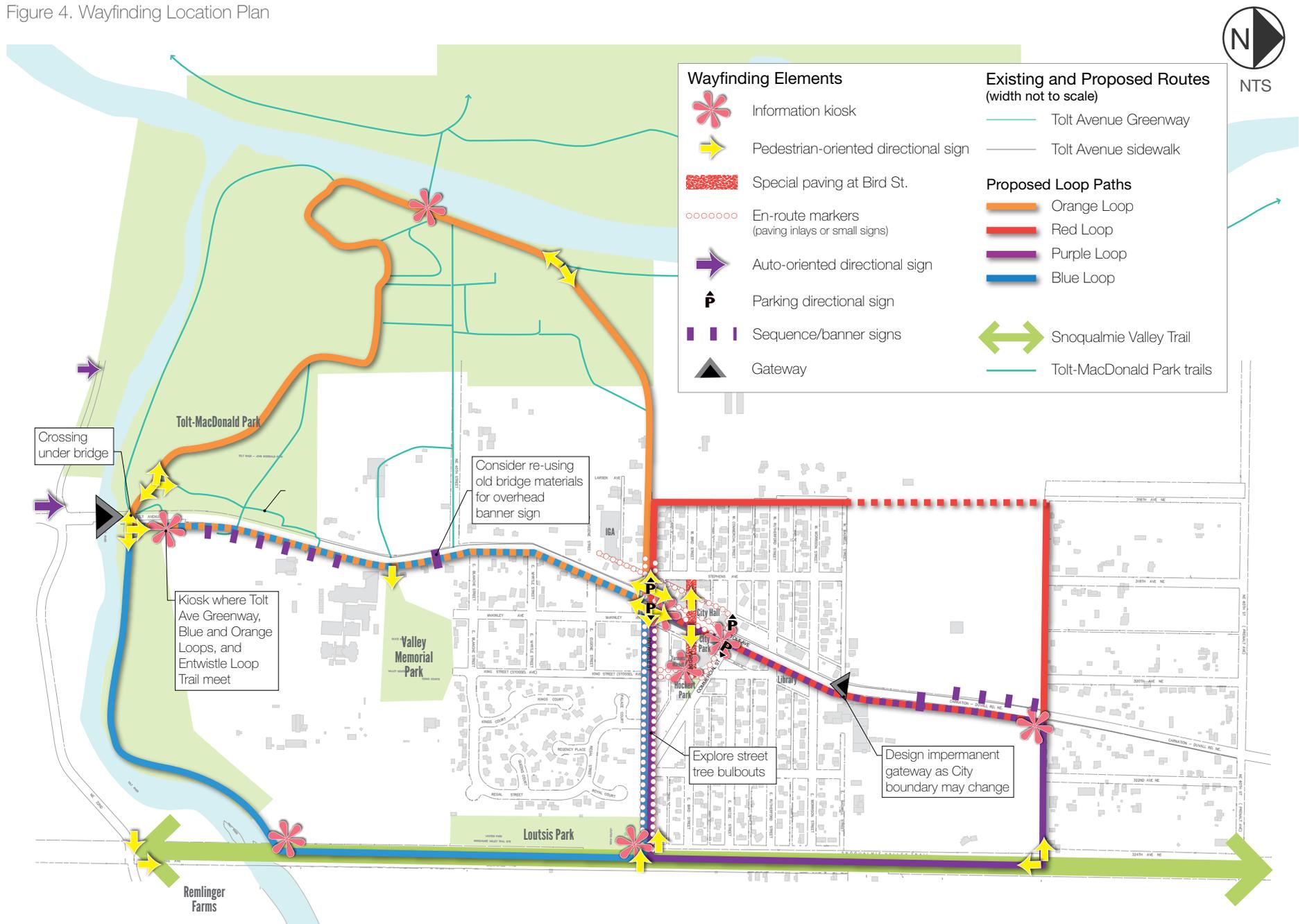
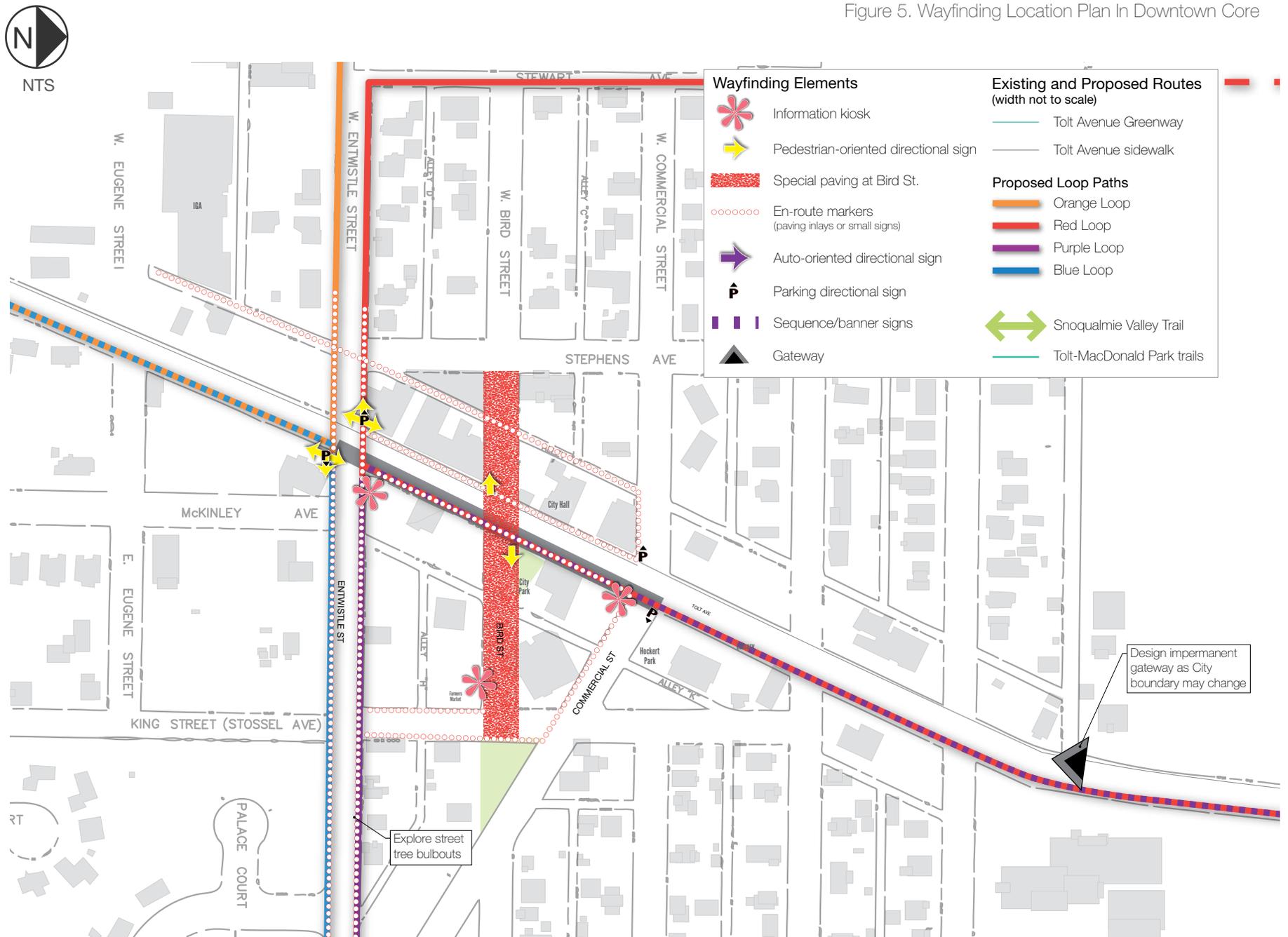


Figure 5. Wayfinding Location Plan In Downtown Core



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IMPLEMENTATION OVERVIEW

The Action Plan includes a mile and a half of street improvements that extend from Tolt Hill Road to NE 60th Street. The plan also includes off-street wayfinding improvements to support community and project goals. The implementation approach prioritizes proposed improvements through a series of recognizable and manageable projects that focus on fundamental components of the plan.

The implementation approach also considers operational and economic limitations that may facilitate, or limit, plan execution. As a result, streetscape improvements are identified as a combination of full street reconstruction and retrofit projects. The intent is that this combination allows the city to incrementally construct for the long term vision and limit interruption to existing operations. Figure 6, the Implementation Phases Overview Diagram, identifies nine phases of streetscape improvements along Tolt Avenue.

These projects should be phased based on how they relate to downtown Carnation, including transitions into Carnation, and how each project achieves overall project goals. Additional wayfinding projects support streetscape projects and help visitors discover where they are, where they'd like to go, and how to get there. The implementation approach includes a tiered list of all the proposed projects.

PROJECT PRIORITIZATION

Proposed projects are grouped in four separate tiers: Starter projects, First Tier projects, Second Tier projects, and Opportunistic projects.

- Starter projects are small projects that achieve small advancements towards overall project goals. Some of these projects can be constructed as a part of First or Second Tier projects, but in general have an opportunity to provide immediate benefits with limited financial investment.
 - Solar powered radar speed sign in South Entry
 - Tolt Hill Road wayfinding
 - Tolt Avenue Burmashave-style signage
 - Removal of invasive plants and native habitat restoration

Figure 6. Implementation Phases Overview Diagram



- First Tier projects are larger scale projects phased to realize major project goals and set the foundation for future improvements and development along Tolt Avenue. These projects establish the Tolt Avenue Greenway, create a destination in downtown Carnation, underground power (where noted) and address wayfinding along Tolt Avenue.
 - South Greenway
 - Central Business District (CBD)
 - North Greenway
 - Wayfinding Design Contract
 - Wayfinding Loop Paths
- Second Tier projects are lower priority and support First Tier projects. In some cases the existing infrastructure along Tolt Avenue can provide adequate functional needs until Second Tier projects are constructed. Financial investment in these projects is recommended after First Tier projects have been completed.
 - South Entry
 - North Entry
 - Walkway from NE 55th Street to NE 60th Street
 - Wayfinding En-Route Markers



- Opportunistic projects are projects that are more successfully pursued through joint partnership with another agency or stakeholder. If the City’s financial investment is limited in these projects the benefits of completing each project can be immediately realized. However, these projects should be not completed at the financial expense of First Tier projects.
 - Bird Street
 - Tolt Hill Road Intersection
 - Tolt River Bridge
 - Larsen Avenue and Alley Circulation

Project descriptions included in the Action Plan provide specific information related to each project including, but not limited to: project objectives, anticipated stakeholder coordination, design considerations, and anticipated project costs and funding opportunities.

APPROACH

The Greenway is a key element that provides access to and from local activities along Tolt Avenue and downtown. Therefore, an early goal of phased streetscape improvements is to integrate the Greenway into the existing right-of-way. The existing road has historically functioned as a “drive-thru” for vehicles passing through Carnation. Wide travel lanes and road shoulders facilitate fast, easy movement through the corridor. The implementation plan makes use of this existing condition, retrofitting the Greenway into the existing roadway while maintaining vehicular travel in both directions.

In addition to providing non-motorized improvements the Greenway also creates a change in the roadway environment as people enter Carnation. It narrows the existing roadway width and introduces street trees and landscaping that reduce the optical width of the roadway

(the physical relationship between the width of the road and the height of nearby vertical elements) increasing drivers' perception of the appropriate travel speed.

This improved pedestrian environment approaching downtown sets the table for the reconstruction of the downtown streetscape. Full street improvements in the Central Business District (CBD) remove existing pavement and correct slopes that are not conducive to pedestrian access across and along Tolt Avenue. Narrow travel lanes outside of the commercial core, established during the Greenway retrofit, are continued through the CBD to allow for wider sidewalks that support community activities and local businesses.

The completion of the Tolt Avenue Greenway and CBD fill immediate gaps in existing Tolt Avenue infrastructure. Other existing portions of the corridor generally have capacity to meet existing needs: the South Entry into Carnation, from NE 40th Street to Entwistle Street, has an existing continuous sidewalk and on-street parking; the North Entry and its adjacent land-uses require few immediate updates. Therefore, subsequent First Tier projects are aimed at developing a wayfinding system that supports the Greenway and downtown Carnation.

The scale of proposed projects are identified as multi-block projects to complement the Tolt Avenue Greenway and strengthen applications for funding. As a retrofit project, the Greenway is more likely to be implemented over a full section of the corridor (e.g. south of downtown Carnation) and provide an impact for Tolt Avenue users. Competitive grants and other funding agencies (e.g. Washington Transportation Improvement Board) commonly prefer corridor scale projects as these projects are not dependant on future conditions to achieve project goals. Similarly, the North and South Greenway and other streetscape projects (e.g. CBD, South Entry and North Entry) are phased to construct improvements over multiple blocks. It is also recommended that utility infrastructure such as power undergrounding and storm drainage infrastructure be constructed with street improvements but not before so that the infrastructure is appropriately integrated.



ANTICIPATED CHALLENGES

Retrofitting for the Greenway

Maintaining Travel Lanes

Retrofitting the Greenway into the existing right-of-way, instead of constructing full street improvements takes advantage of the wide, existing roadway and is aimed at reducing anticipated construction costs. Based on City-provided GIS/survey information, the existing right-of-way can accommodate the proposed Greenway and maintain two 11-foot travel lanes. To maintain travel lanes in each direction, the existing lane alignments will shift horizontally and reduce in width; the reduced lane widths will be 11 feet, the minimum allowed by WSDOT (the lanes will eventually be expanded to 12 feet with the completion of the South Entry and North Entry projects). It is anticipated the existing roadway will need widening at some locations to maintain two travel lanes, but widening should be limited to select locations. Specific discussion related to roadway widening is covered in the South Greenway and North Greenway Project descriptions.

Impact of Existing Grades

Retrofit projects can present challenges with existing conditions and the Greenway projects will be no exception.

Existing roadway grades have steep cross slopes (>4%) that are not typical of urban streets. In downtown these grades are the result of an existing concrete roadway base. Outside of downtown these grades are likely the result of past road maintenance practices that have been limited to pavement overlays, instead of grinding the existing pavement and overlaying new pavement. These steep cross slopes present challenges for retrofitting the existing roadway and maintaining an ADA accessible facility while also matching existing grades at the right-of-way line. Strategies to mitigate this may include replacement and re-grading of the existing roadway at specific locations, a reduced curb height, or reverse sloped planting strips combined with permeable pavement that can mitigate stormwater runoff.

Shifting the Tolt Avenue Centerline Alignment

Shifting travel lanes to accommodate the Greenway retrofit will result in travel lanes offset from the roadway crown. Tolt Avenue is a low speed road (30 mph posted speed limit) and the roadway grades are an existing condition, but this will need to be reviewed and approved with WSDOT during final design. Strategies to mitigate this require additional pavement replacement and will add to project costs.

Full street improvements in the Central Business District

Impacts to Existing Traffic Operations and Business

The full reconstruction of the roadway is needed to create an accessible and functional streetscape. Existing grades in downtown Carnation include cross slopes up to seven percent in travel lanes and 10 percent in curb bulbs. To correct these grades and expand the sidewalks requires the reconstruction of much of the roadway. While this provides an opportunity to improve and enhance the existing streetscape the impacts to traffic and adjacent business may present challenges. To reduce these impacts future projects should coordinate closely with WSDOT, develop phasing and traffic control plans, and explore opportunities to develop public outreach and engagement plans that support and provide services for local businesses that are impacted by construction.

Working With and Coordinating with WSDOT

Because Tolt Avenue is also a state highway, all streetscape improvements along Tolt Avenue are within the state right-of-way and will require design review and coordination with WSDOT. It is the team's understanding that previous City infrastructure projects within Tolt Avenue have labored to work through state processes, meet WSDOT

requirements, and be completed in a timely manner. Moving forward with future streetscape projects will require early and frequent coordination with WSDOT. The inclusion of WSDOT as a stakeholder, even when design review is not required, is recommended to keep WSDOT informed and to understand future stumbling blocks as soon as possible. This also applies to improvements outside of downtown such as at Tolt Hill Road and the Tolt River Bridge.



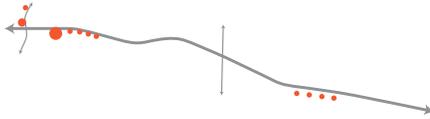
IMPLEMENTATION PROJECTS



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STARTER PROJECTS



DESCRIPTION

This consists of several small projects identified to provide opportunities to achieve small advancements towards overall project goals. These projects could be constructed as a part of a First or Second Tier project, but have the opportunity to provide immediate benefits of supporting overall project goals with limited financial investment. See next page for a plan documenting these projects in the South Entry and North Entry.

Tolt Hill Road Wayfinding

Two auto-oriented directional signs are needed on Tolt Hill Road. One sign should be placed on Tolt Hill Road west of the intersection to advise eastbound traffic to turn left onto Tolt Avenue for Carnation. This sign has two purposes:

- For motorists planning to visit Carnation, it provides warning that they are approaching an intersection where they need to turn. In this case, it makes getting to Carnation slightly easier with a clear and simple sign.
- For motorists unfamiliar with Carnation, it may apprise them of Carnation's proximity and instigate a curiosity in visiting Carnation. By the time they reach the intersection with Tolt Avenue, they may decide to turn.

The second sign should be placed at the Tolt Hill Road/ Tolt Avenue intersection so that people approaching the stop know to turn left.

The character of these signs should be consistent with the overall wayfinding strategy and enhance Carnation's authentic identity.

Tolt Avenue Burmashave-style Signage

Burmashave-style signs should be added to the east side of Tolt Avenue to add intrigue and build on Carnation's small town feel. Note that as a part of the North Entry project, the signs north of downtown will be relocated to the west side of the street.

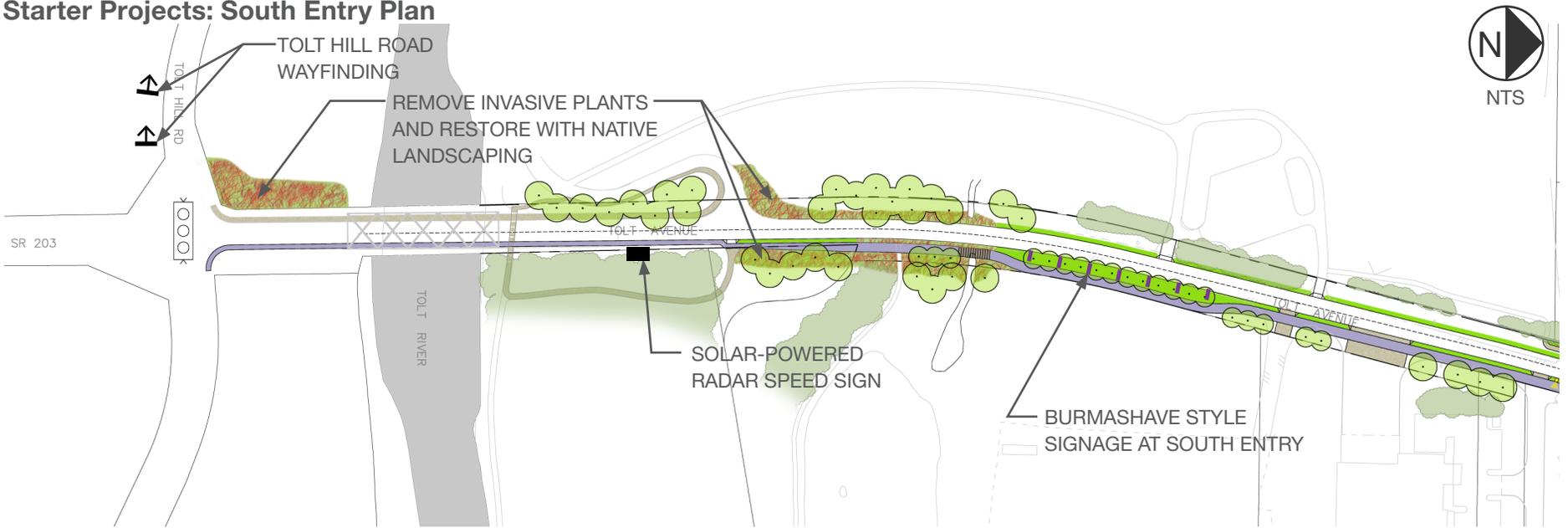
Removal of Invasive Plants and Native Habitat Restoration

Existing invasive plants south of the bridge on the west side of the road and north of the bridge on both sides of the road should be removed and replaced with native plants.

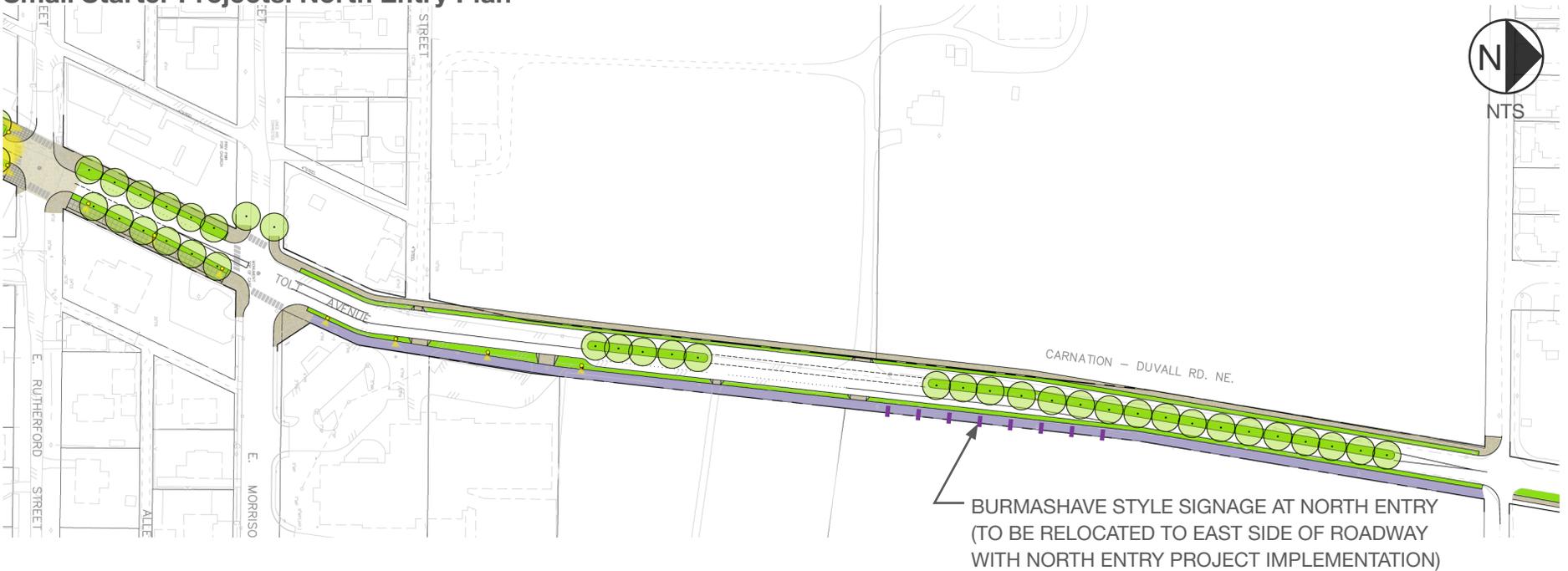
Solar Powered Radar Speed Sign in South Entry

A speed sign, similar to the existing sign on the west side of Tolt Avenue between NE 55th Street and NE 60th Street, should be acquired and installed.

Starter Projects: South Entry Plan



Small Starter Projects: North Entry Plan





TOLT HILL ROAD INTERSECTION [OPPORTUNISTIC PROJECT]



DESCRIPTION

This project provides a traffic signal at the Tolt Avenue/Tolt Hill Road intersection.

BACKGROUND

Stop sign controlled traffic at SR203/Tolt Avenue backs up eastbound traffic on Tolt Hill Road. During summer and fall weekends thousands of visitors converge on Remlinger’s Farm, Tolt-McDonald Park, and other local destinations and generate heavy traffic that hinders turning movements onto Tolt Avenue and into Carnation; anecdotal stories from project stakeholders and local community members indicate traffic can back-up more than 30 minutes during event conditions.

As early as 2004 WSDOT identified that this intersection met traffic signal warrants. In 2004, a Puget Sound Regional

Council (PSRC) study for the SR203 corridor between Fall City and Monroe identified a roundabout or traffic signal as options to improve safety and traffic operations at the intersection, but indicated that “project costs will be relatively high compared to other intersection/operations improvement projects due to right-of-way, environmental impacts and topography.”

While either a traffic signal or roundabout would improve operational and safety conditions at the intersection, a traffic signal is recommended because it would have a smaller footprint and lower environmental impacts on the surrounding area. It would also likely allow for shorter pedestrian crossings. As suggested by WSDOT traffic engineers during concept design, this signal could be designed to have a variable timing plan that optimizes operations for both weekday conditions (with favor given to SR203 commuter traffic) and weekend traffic (with more favor to local access traffic from Tolt Hill Road).

Tolt Hill Road Intersection

OBJECTIVE

Response to Project's Guiding Principles:

- **Safe:** A traffic signal, provides operational flexibility for users on Tolt Avenue and Tolt Hill Road improving safety for vehicles and pedestrians
- **Placemaking:** A traffic signal alerts motorists they are entering an urban area.
- **Maintainable:** Operational flexibility provided through a variable timing plan limits intersection improvements and minimizes future maintenance.

PREREQUISITES AND SEQUENCING

This is an Opportunistic Project and there are no project prerequisites. Signal design and implementation should be pursued through WSDOT.

AGENCY AND STAKEHOLDER COORDINATION

WSDOT

Signal design will be completed by WSDOT.

Remlinger Farms

Coordination is recommended given the traffic volumes that access Remlinger Farms from this intersection.

CONSIDERATIONS FOR EXISTING CONDITIONS

As documented in PSRC's 2004 study limited right-of-way area, site topography (particularly approach grades on Tolt Hill Road) and adjacent environmentally sensitive areas (Tolt River and flood plain) present challenges for future intersection improvements.

WAYFINDING AND WAYFINDING UPDATES

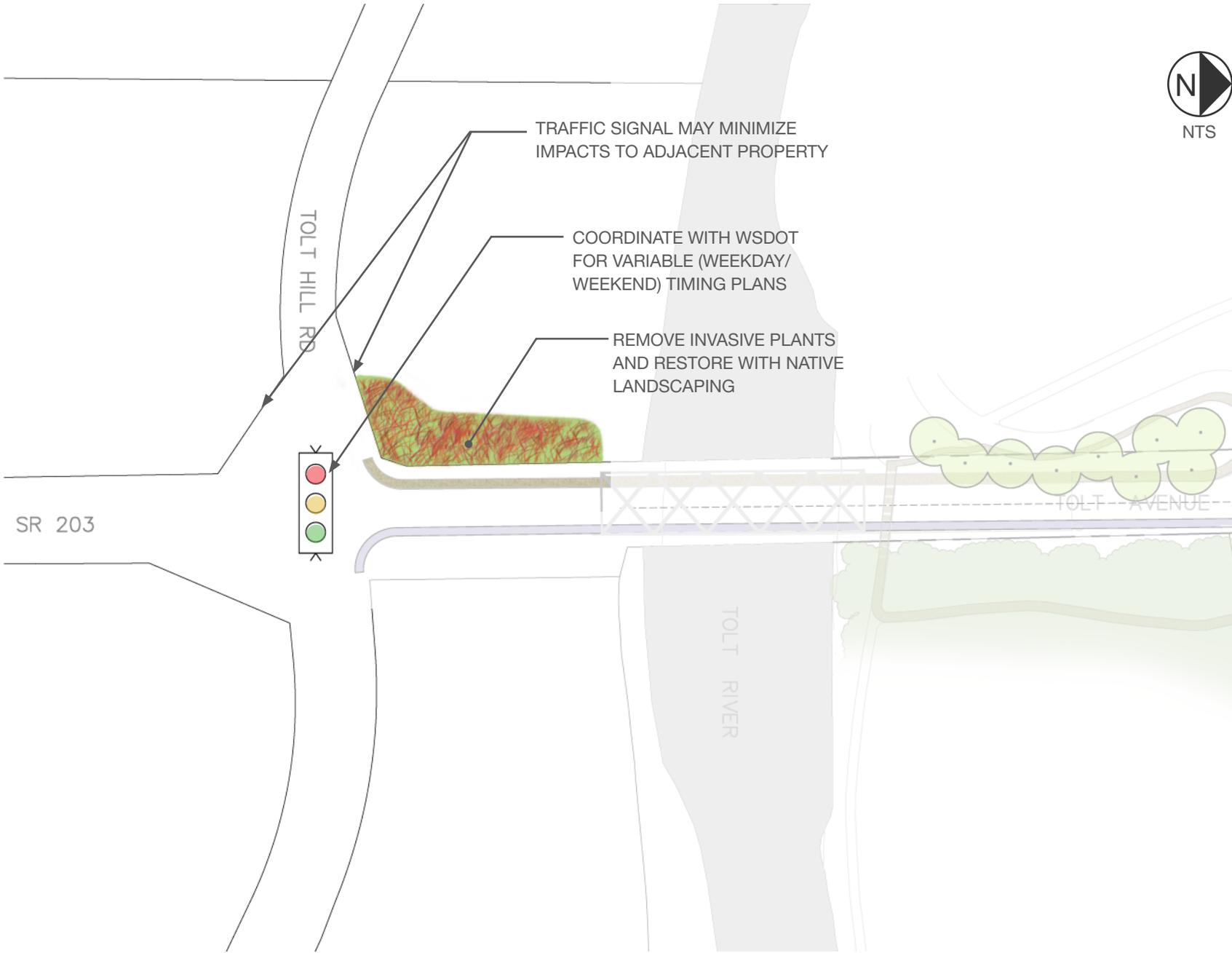
Protect any new wayfinding elements during construction of the traffic signal and any new street improvements.

PROJECT COSTS AND FUNDING OPPORTUNITIES

Anticipated projects costs range from \$650,000 to \$810,000. A summary breakdown of these costs is provided in Appendix G.

Project Funding

- Washington Department of Transportation
- Remlinger Farms
- State Transportation Alternative Program (TAP) Funds from MAP-21 (includes previous Federal Transportation Enhancements program funding)
- TIB Small Cities Programs
- PSRC Rural Town Centers and Corridors Funding



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TOLT RIVER BRIDGE [OPPORTUNISTIC PROJECT]



DESCRIPTION

This project consists of painting and lighting the Tolt River bridge and adding a sidewalk to the east side of the bridge. The sidewalk requires a structural load analysis to confirm the weight of concrete and shift in travel lanes (to accommodate the sidewalk) will not impact the bridge structure. The sidewalk will extend south to Tolt Hill Road and north to connect with the South Greenway.

BACKGROUND

The purpose of this project is to turn the existing steel truss bridge into a gateway at the city's southern boundary. The existing bridge surface is rarely cleaned, covered with plant and animal waste and an eyesore for people entering Carnation. Painting the bridge provides an opportunity to enhance the character of the existing structure and let

people know, particularly those approaching Carnation from Tolt Hill Road, that something lies on the other side of the bridge. Opportunities to integrate a large city nameplate should be explored above the bridge structure. Lighting of the bridge is recommended to enhance the character of the gateway during the evenings and dark winter months.

The pedestrian path on the east side of the bridge strengthens the connection between the South Greenway and NE 32nd Street (Tolt-Bunker Road), which provides access to the Remlinger Farm property.

OBJECTIVE

Response to Project's Guiding Principles:

- **Safe:** Bridge lighting provides additional light along pedestrian walkways and a new sidewalk provides pedestrian routes on both sides of the street.
- **Welcoming:** Painting, signage and lighting identifies the entry into the City.
- **Authentic:** Recognition that the bridge structure provides the gateway speaks to the community values and character of the City. The color selection for painting the bridge should be consistent with City and community ideals.
- **Placemaking:** the bridge structure as a gateway reinforces the river as a special place within Carnation.
- **Maintainable:** lighting and paint materials should be selected to minimize long-term maintenance costs

PREREQUISITES AND SEQUENCING

The Tolt River Bridge is an Opportunistic Project. While there are no project prerequisites it is recommended the Tolt Avenue Greenway and Central Business District are completed prior to executing this project so that visitors first reaction can coincide with other new experiences along Tolt Avenue and in downtown Carnation.

AGENCY AND STAKEHOLDER COORDINATION

WSDOT

The WSDOT Design Manual, Chapter 950 – Public Art is the reference for exploring lighting and signage of the bridge. Connecting light fixtures to the bridge will require approval from WSDOT and coordination to show that the structural integrity of the bridge is not impacted.

WSDOT requires a structural load analysis for the sidewalk proposed on east side of the existing structure. The load analysis will determine if the existing structure can tolerate the dead loads associated with a new concrete walk and live loads from vehicular traffic that will shift to align with lane striping.

CONSIDERATIONS FOR EXISTING CONDITIONS

Light fixtures on the bridge should focus light on vertical truss members. Bridge lighting should be directed upward to avoid lights pointing into the river and disturbing fish and other river habitat, but should minimize other light pollution in accordance with dark sky efforts. Lights should be designed to clamp onto the steel bridge truss without penetrating, or impacting, the existing bridge structure.

Consider lighting the sign on top of the bridge; a lit sign will allow the sign to be seen year round and at all hours of the day.

WAYFINDING AND WAYFINDING UPDATES

The bridge is the major entry feature and announces one's arrival in Carnation. It should be painted with a bright but classic color (e.g., red) and have a sign reading "Carnation," "Welcome to Carnation," or "Carnation welcomes you."

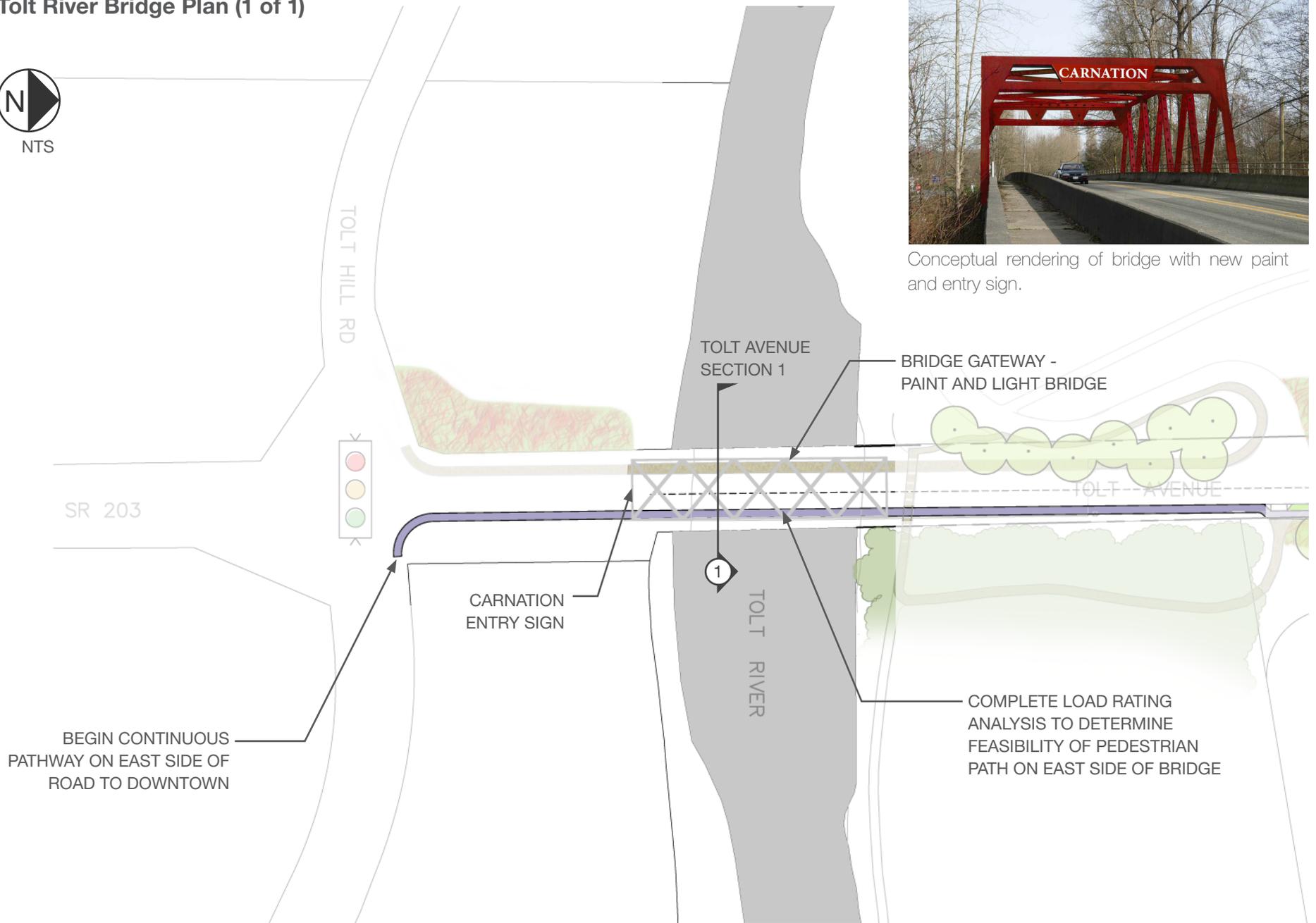
PROJECT COSTS AND FUNDING OPPORTUNITIES

Anticipated projects costs range from \$1,690,000 to \$2,070,000. A summary breakdown of these costs is provided in Appendix G.

Project Funding

- Washington Department of Transportation
- State Transportation Alternative Program (TAP) Funds from MAP-21 (includes previous Federal Transportation Enhancements program funding)
- Transportation Improvement Board Small City's Programs
- National Endowment for the Arts Our Town Grants
- Puget Sound Regional Council Rural Town Centers and Corridors Funding

Tolt River Bridge Plan (1 of 1)

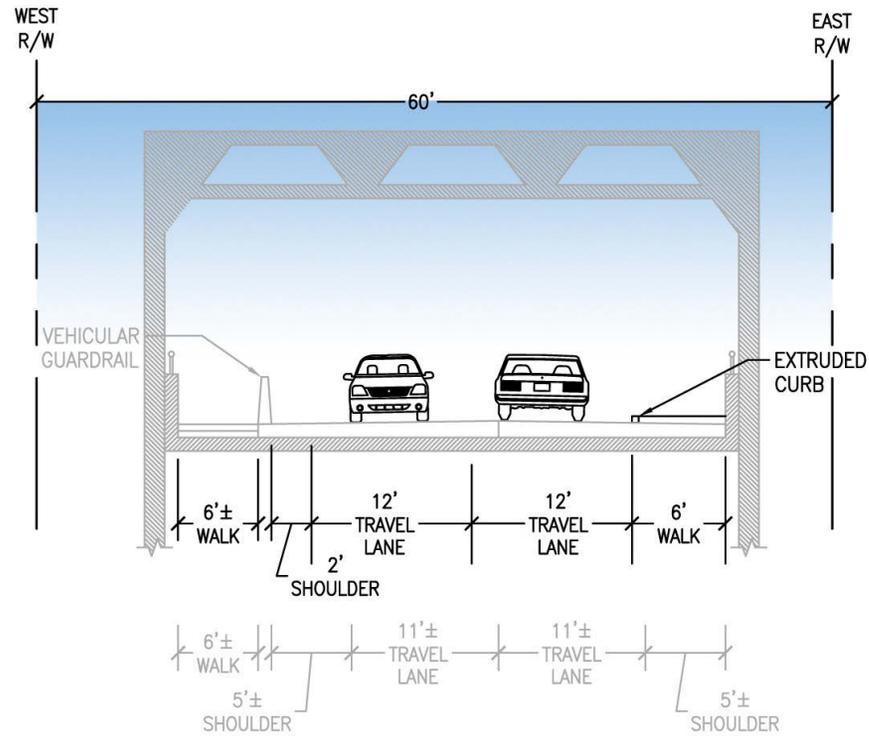


Conceptual rendering of bridge with new paint and entry sign.



Tolt River Bridge Section (1 of 1)

Tolt Avenue Section 1 – Tolt River Bridge



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SOUTH GREENWAY [FIRST TIER PROJECT]



DESCRIPTION

This project consists of constructing the Greenway between the Tolt River Bridge and Entwistle Street. In the context of this project, the Greenway includes all improvements east of the existing travel lanes, including a new curb and gutter, planting strip and pathway. Storm drainage infrastructure, re-grading of the roadway at select locations, partial power undergrounding, lighting, planting and site furnishings are also recommended as a part of this project.

A curb and gutter and landscape restoration along the west side of Tolt Avenue between the Tolt River Bridge and the pedestrian street crossing at the Fire Station are also included in this project.

An easement or property acquisition is required to construct a portion of the recommended improvements along the existing King County Parks property between

the Tolt River Bridge and Snoqualmie Tribe property on the east side of the Tolt Avenue.

BACKGROUND

The South Greenway establishes the Tolt Avenue Greenway and provides improved pedestrian and bicycle access between the Tolt River and downtown core. The Greenway is buffered from the roadway by a traffic curb and 4.5-foot planting strip to provide a safe and pedestrian-friendly place for walking and biking. A new curb along the west side of Tolt Avenue establishes the width of the retrofitted roadway as users enter Carnation from the south.

The concept plan shows opportunities for integrating green stormwater infrastructure and locations of vegetation and trees. Bollard lighting, beginning at the Tolt Middle School and continuing north to the Central Business District

South Greenway

(CBD), is also shown in the planting strip. All of these elements contribute to the character of the Greenway and strengthen connections between the school and downtown core.

Relocation of existing overhead communication distribution south of 40th Street is recommended to simplify existing overhead utilities and eliminate limitations on tree plantings below overhead utility wires.

As Greenway users approach the CBD from the south several elements are proposed to facilitate the transition from a shared-use path to a wide urban sidewalk. These features are proposed to slow bicyclists and alert users to the end of the South Greenway (the Tolt Avenue Greenway continues north of the commercial core). The main design elements include:

- A transition from an asphalt path to a concrete path at Eugene St, the start of the CBD, indicates to users they are entering a more urban environment.
- In the CBD a two-foot space between the Greenway and buildings provides a buffer between Greenway users and people entering/leaving businesses. The paved buffer is also differentiated from the concrete path by pavement scoring. Outside of entry/exit areas the paved buffer allows businesses a space to put signs and flower pots outside of the shared-use path.
- Approaching Entwistle Street a sign tells users: “Greenway Ends, Dismount Bicycles.”

- Bicycle racks are located along the Greenway to provide a place to lock bikes and help to narrow the sidewalk and reduce Greenway/sidewalk conflicts.
- The planting strip separating the shared-use path from the roadway is expanded, narrowing the Greenway to calm Greenway and sidewalk users.
- Scoring in the concrete path changes at the expanded planting strip near Entwistle Street indicating the Greenway has ended and users have entered the downtown sidewalk.
- On the north side of Entwistle Street covered bike parking provides a place to park bikes during wet weather and a kiosk provides wayfinding information.

A rendered plan and perspective of these techniques are included following the text in this section.

The South Greenway is separated from other streetscape improvements between the Fire Station and Entwistle Street to facilitate project implementation due to anticipated project costs when compared to full corridor improvements. Implementing the South Greenway early in the Action Plan also supports a major project goal of improving access to the downtown core from major trip generators such as Tolt-McDonald Park and Remlinger Farms. The project lays the foundation for future components that will work to create an authentic and welcoming corridor for the local community and visitors.

Designing the Greenway as a Shared-Use Path

The Greenway is intended to provide a safe, low speed corridor for pedestrians and bicyclists along Tolt Avenue

and fast, road cyclists are encouraged to continue to share the road with motorized vehicles. A shared-use path is a transportation facility that supports off-street bicycling and walking. AASHTO’s Guide for Development of Bicycle Facilities, 4th Edition 2012 (AASHTO) provides design guidelines for shared-use paths. Shared-use paths have a minimum 10-foot paved width and a two-foot graded area on each side of the path. The Greenway is designed with a 10-foot width. The Greenway provides a graded area in the level planting strip along the west side of the path; this graded area should be clear of vertical obstructions such as bollard lighting, utility poles, and signage. On the east side of the Greenway the outside two feet of pavement are intended to function as the graded area.

Where shared-use paths are located adjacent to the roadway AASHTO refers to these facilities as “sidepaths.” Sidepaths can be used where high-volume motor vehicle traffic discourages many bicyclists from riding in the roadway. There are high traffic volumes and truck numbers on Tolt Avenue – see Transportation and Parking Technical Memorandums in Appendix B. When a sidepath provides travel in both directions a five-foot separation is recommended from the roadway; the Greenway provides a five-foot separation from the edge of the path pavement to the face of curb.

AASHTO also discusses design considerations for two way sidepaths that cross streets and driveways. The location of the Greenway (east vs. west) was reviewed in the context of existing street intersections and driveways. A map showing this analysis is provided in Appendix H,

which identifies potential conflicts and benefits to siting the Greenway along each side of the roadway.

The future design of the Greenway should consider design guidance offered by AASHTO updates, the National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide and the upcoming NACTO Urban Street Design Guidelines.

OBJECTIVE

Response to Project’s Guiding Principles:

- **Safe:** the shared-use path provides a dedicated and buffered facility for pedestrians and bicyclists.
- **Welcoming:** the Greenway improves non-motorized access to and from downtown Carnation and the planted buffer improves the streetscape aesthetic.
- **Authentic:** the Greenway enhances opportunities for recreation (biking and walking) along Tolt Avenue and connects existing and proposed pathways off Tolt Avenue.
- **Place-making:** the Greenway creates a unique facility that connects the corridor and provides access to Carnation’s many destinations.
- **Cohesive:** the Greenway is continuous through Carnation from the Tolt River Bridge to NE 55th Street except in downtown Carnation.

PREREQUISITES AND SEQUENCING

This is a First Tier project and there are no prerequisites. The implementation of this project assumes two 11-foot travel lanes can be maintained along Tolt Avenue based on City-provided GIS/survey information (the South Entry project will complete the roadway and provide 12-foot lanes).

Depending on project funding and the future development of the existing Snoqualmie Tribe property (south of the fire station) the project could be constructed in two phases. If phased, the project should first construct the Greenway between the existing pedestrian crosswalk along the southern boundary of Tolt Middle School and Entwistle Street. Phasing the project at this location allows the existing off-street trail within Tolt McDonald Park, along the west side of Tolt Avenue, to act as a temporary connection between the Tolt River and the beginning of Greenway at the pedestrian crosswalk. Phase two should extend the Greenway south from the pedestrian crosswalk to the Tolt River Bridge.

Power undergrounding and storm drainage infrastructure are included in this component to minimize future disturbances. Power undergrounding extends from the south side of the Tolt Avenue/Myrtle Street intersection and includes placing below ground vaults and handholds. Coordinating power undergrounding work with Greenway improvements ensures the layout of the underground system (both horizontal and vertical) is consistent with the goals and needs of the Greenway. Explore opportunities to extend undergrounding south of Blanche Street where

power crosses the roadway. Storm drainage infrastructure will be required to collect and convey runoff from the existing roadway. Integrating green stormwater infrastructure into proposed improvements is recommended.

AGENCY AND STAKEHOLDER COORDINATION

WSDOT

A line shift (adjustment to centerline location) is required to construct the South Greenway and will need to be reviewed by WSDOT. Based on City-provided GIS/survey information the existing road generally has width, with restriping, to accommodate two 11-foot travel lanes (the minimum allowed by WSDOT), although at select locations roadway widening is anticipated.

King County Parks (Parks)

Approximately 200 linear feet of improvements require an easement or property acquisition along existing Parks property east of Tolt Avenue. The easement/acquisition area, located just north of the Tolt River Bridge, is needed to construct the Greenway and maintain five feet of separation from the roadway, which is required to meet shared-use path design requirements.

PSE

The power undergrounding design will be completed by PSE. Coordination with PSE should begin at project kick-off so that PSE understands project goals. A key element

will be the location (vertical and horizontal layout) of underground vaults and handholes and coordination with the proposed landscape design.

Relocation of existing overhead communication distribution from the east side of Tolt Avenue to PSE-owned utility poles on the west side of Tolt Avenue, between the fire station and Blanche Street, should be confirmed and coordinated with PSE.

Century Link

This project calls for removing existing utility poles on the east side of Tolt Avenue, from the fire station to Blanche Street, and transferring overhead communication distribution to existing PSE poles on the west side of Tolt Avenue. Some existing poles may need to remain on the east side of Tolt Avenue to allow for service connections to adjacent properties; at these locations poles should be relocated to eliminate conflicts with the Greenway.

Snoqualmie Tribe

Proposed improvements fronting the Snoqualmie Tribe property should be coordinated with the tribe. Explore opportunities to integrate green stormwater infrastructure and native planting/landscape restoration in accordance with any similar goals of the Snoqualmie Tribe.

COORDINATION WITH EXISTING CONDITIONS

Existing roadway width

Spot roadway widening to maintain two 11-foot travel lanes is anticipated along portions of the existing roadway between the north driveway access to Tolt McDonald Park and the Carnation Tree Farm Property. Widening may extend up to five feet beyond the existing pavement edge; however, the locations are generally limited to areas with an existing gravel shoulder. Additional, widening may be required if WSDOT requires a roadway shoulder beyond the lane edge line where a curb is not currently present or proposed as a part of this project.

Existing roadway grades and cross slopes

Roadway re-grading is anticipated along portions of the existing roadway to accommodate the shared-use path. Re-grading is needed to maintain accessible cross slopes in the proposed shared-use path. Based on site observations of existing grades the horizontal location of the proposed curb would result in steep cross slopes in the planting strip and shared-use path without re-grading. Therefore, a portion of the existing travel lane should be reconstructed to facilitate accessible grades in the Greenway.

Horizontal location of road centerline

Channelization on Tolt Avenue between Blanche Street and Entwistle Street (within the City street grid) should be reviewed to determine impacts to the existing lane

South Greenway

striping and improvements that may be needed outside the limits of the Greenway. Below are two areas that have been identified as a part of the concept plan:

The existing roadway geometry (based on City-provided GIS/survey) between Blanche Street and Myrtle Street has capacity to maintain two 11-foot travel lanes and construct the Greenway, however, there is not sufficient width to maintain on-street parking for this block until the South Entry has been completed. Install signage and striping to alert users to this condition.

North of Myrtle Street the existing roadway has width (based on City-provided GIS/survey) to accommodate the Greenway, two 11-foot travel lanes and an eight-foot parking lane on the west side of the road. Install signage and striping to alert users to this condition.

To manage Tolt Avenue channelization across Entwistle Street the final design should consider temporarily ending the Greenway at the interface between the Greenway sidewalk and the CBD sidewalk south of Entwistle Street. Terminating Greenway improvements at this location allows the proposed curb alignment to connect into the existing curb bulb before the Entwistle Street intersection.

Grades at existing driveways

Existing sidewalk grades ramp down to cross several driveway approaches. Proposed improvements prioritize pedestrians at driveways and maintain sidewalk grades across driveways. To accommodate this approach, grades on private property should be adjusted to match proposed improvements and a temporary construction easement will be required.

The northern driveway at the middle school has steep slopes (>5%) that will require grading on private property to maintain an accessible path of travel (cross slopes ≤ 2 percent) along the Greenway.

Turning movements at intersections

Detailed engineering studies will be required at intersections to show that curb bulbs and other pedestrian improvements do not impact turning movements to and from Tolt Avenue.

WAYFINDING AND WAYFINDING UPDATES

As discussed on the Loop Paths project page, pedestrian-oriented directional signs should be placed on the Blue and Orange Loops to direct users to the Greenway. At the meeting of Greenway, Blue Loop and Orange Loop (and where there is a crossing at Tolt Avenue), an informational kiosk should be located in a prominent place.

As discussed in the Starter Projects, sequential signs should be used between the Tolt River and Valley Memorial Park to introduce people to Carnation and slow traffic. Burmashave-style signs should be added to the east side to add intrigue and build on Carnation's small town feel.

A pedestrian-oriented directional sign should be placed on the Greenway/Blue Loop/Orange Loop to notify users of Valley Memorial Park and the path to Loutsis Park (when complete). This sign should be legible for cyclists as well as pedestrians.

PROJECT COSTS AND FUNDING OPPORTUNITIES

Anticipated projects costs range from \$5,250,000 to \$6,420,000. A summary and breakdown of these costs is provided in Appendix G.

Project funding:

- WSDOT through reallocation of delayed 2013 paving project
- State Transportation Alternative Program (TAP) Funds from MAP-21 (includes previous Federal Transportation Enhancements, Safe Routes to School and Recreational Trails program funding)
- WSDOT Pedestrian and Bicycle Safety Programs
- Snoqualmie Tribe (street improvements are adjacent to future tribe development)
- Transportation Improvement Board Small City's Programs
- Bikes Belong Grant Program
- PSE – 60/40 match for power undergrounding
- Department of Ecology Fiscal Year Stormwater Grant Program
- Puget Sound Regional Council Rural Town Centers and Corridors Funding
- USDA Rural Development Community Facility Grant
- Franchise Agreement for overhead utility relocation

South Greenway Perspective (1 of 2)

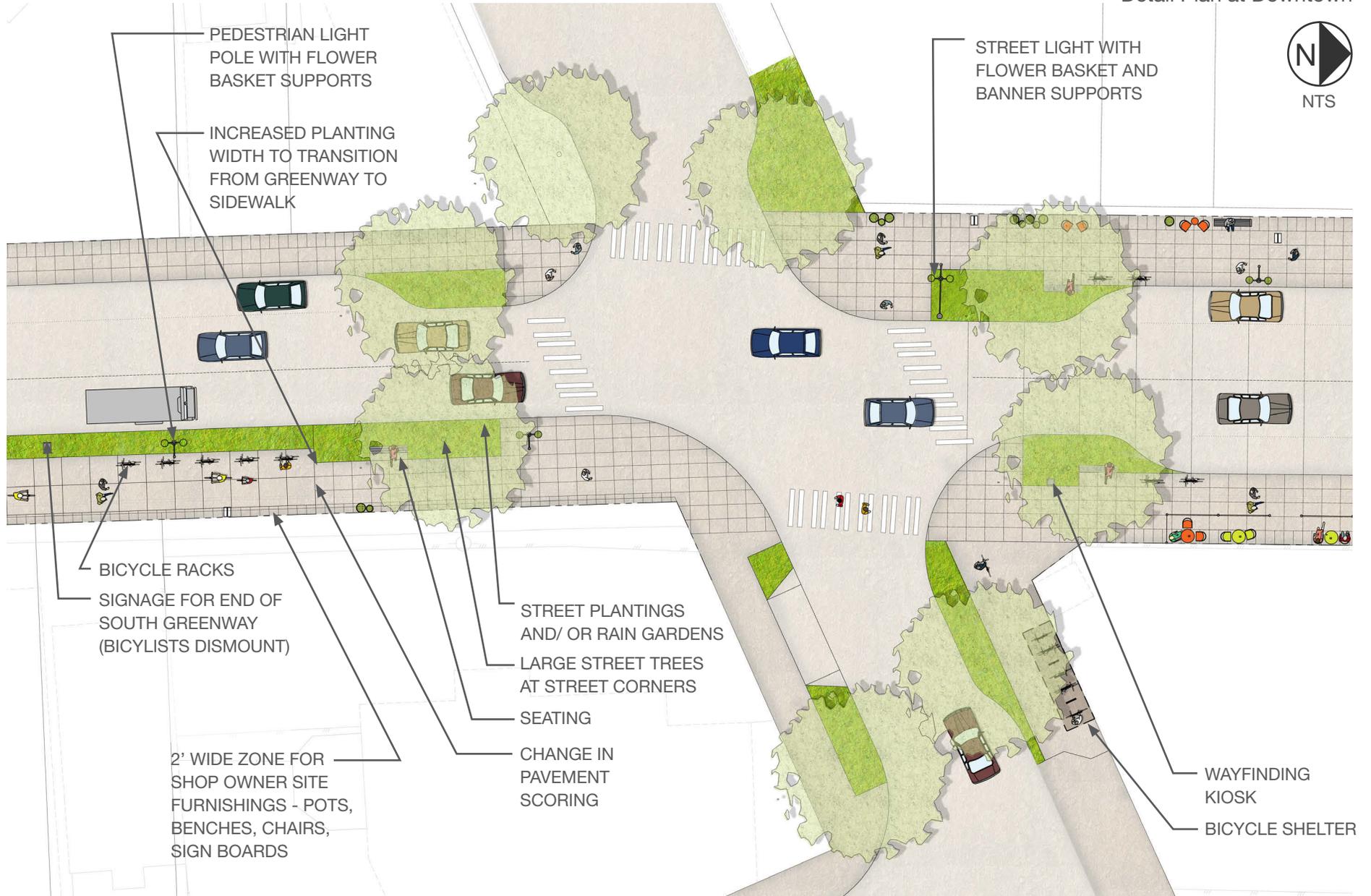
Greenway at Tolt Middle School



South Greenway at school.

South Greenway Detail Plan (1 of 1)

Detail Plan at Downtown



South Greenway Perspective (2 of 2)

Transition to Sidewalk at Entwistle

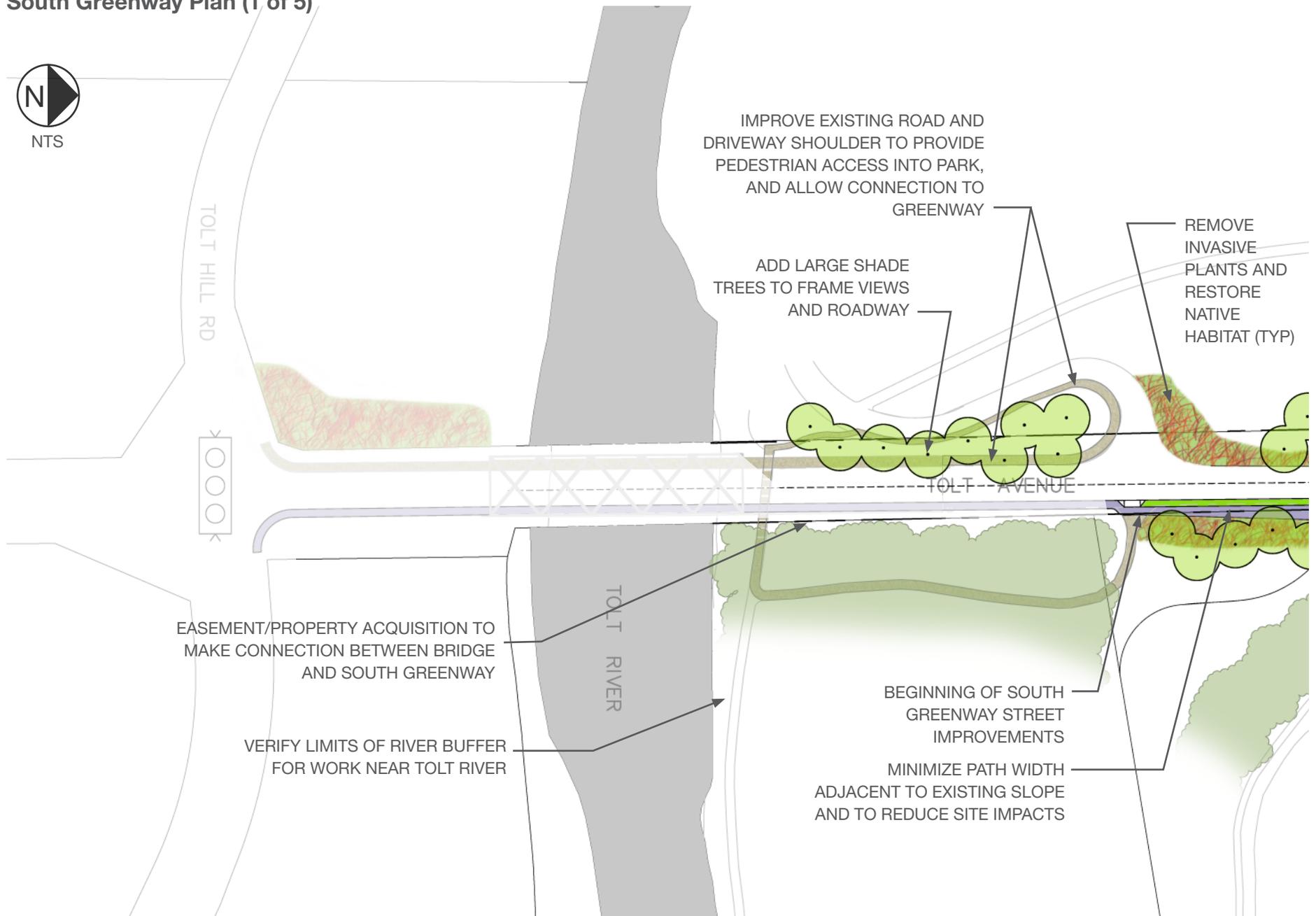


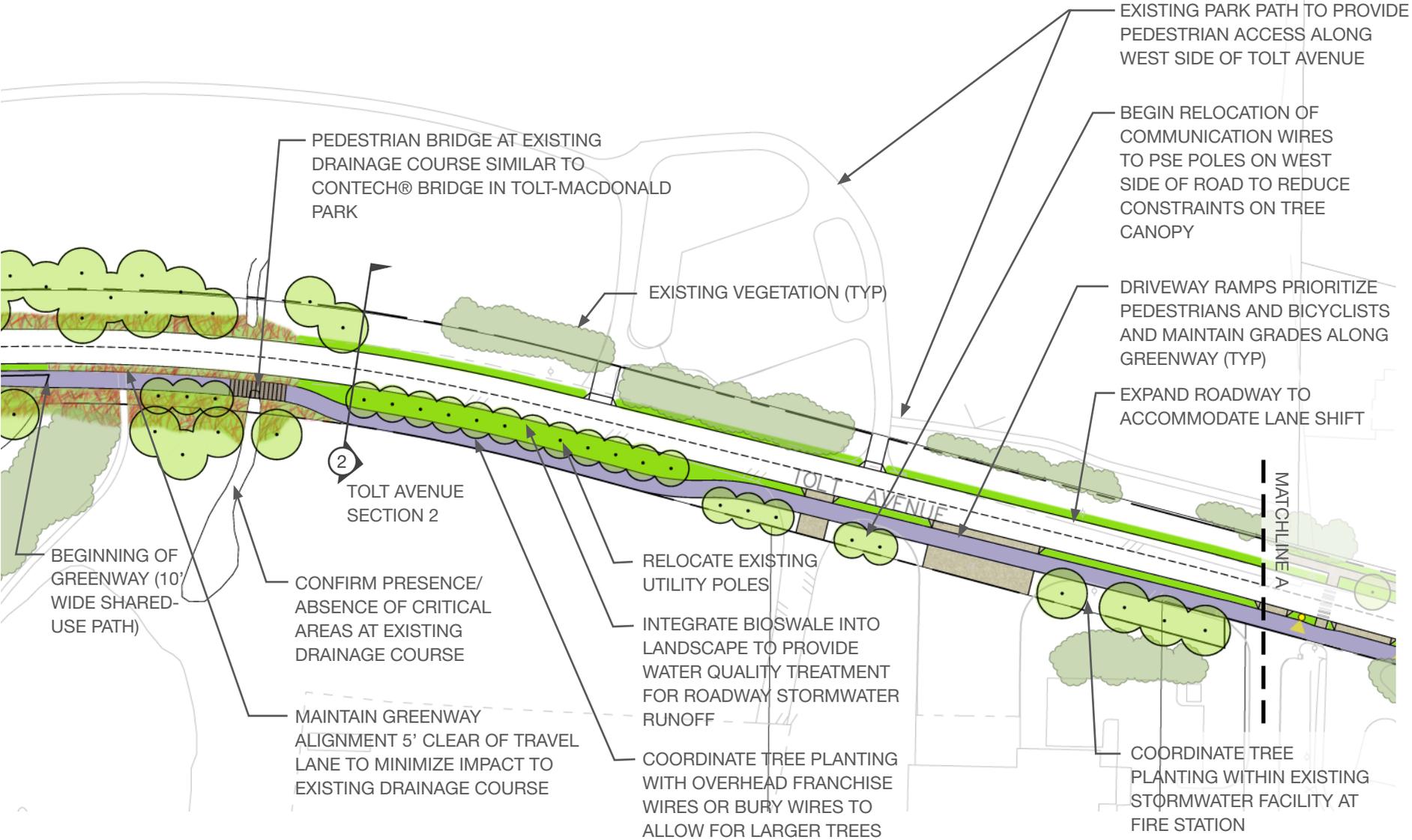
South Greenway transition to sidewalk at Entwistle.

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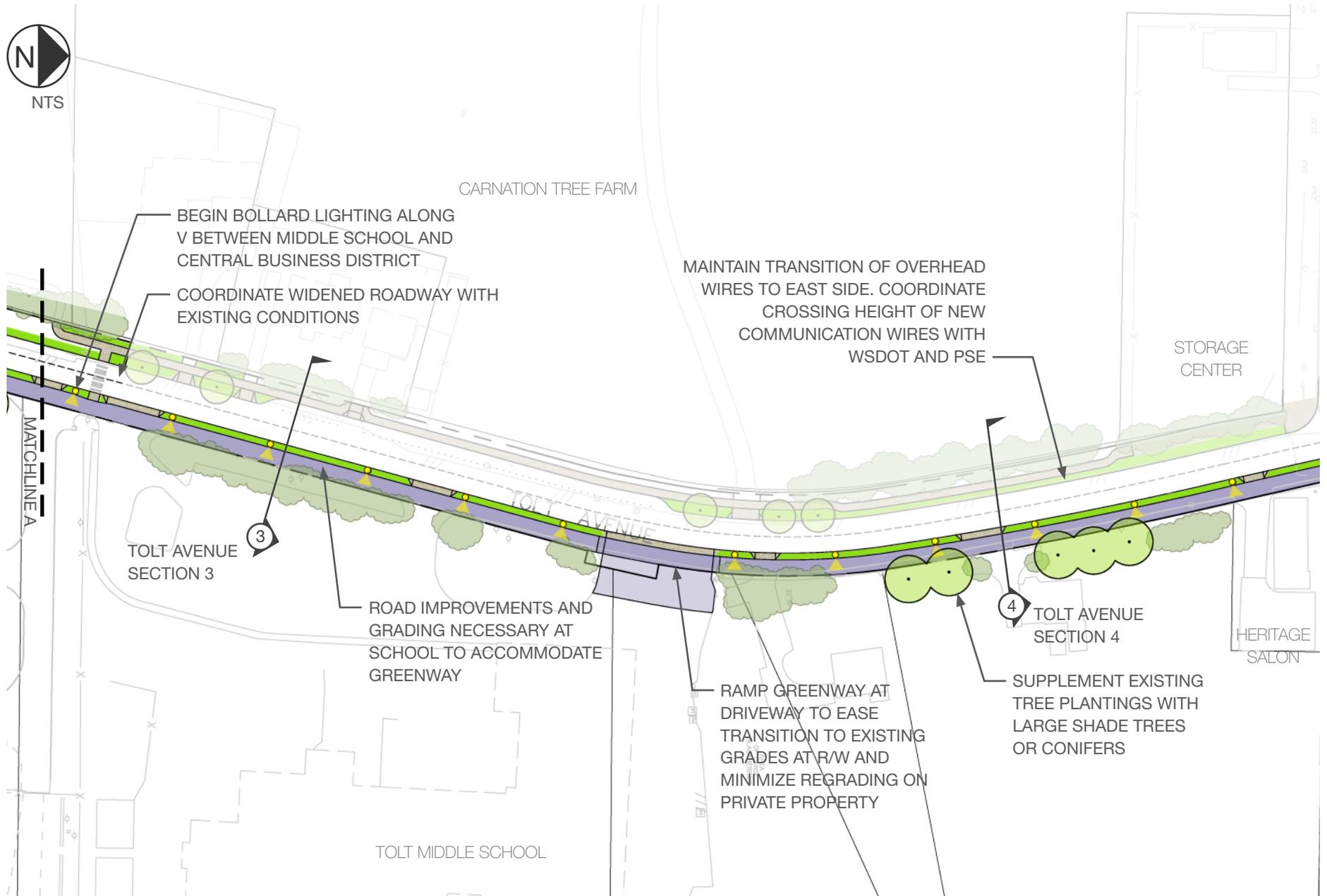


South Greenway Plan (1 of 5)





South Greenway Plan (3 of 5)



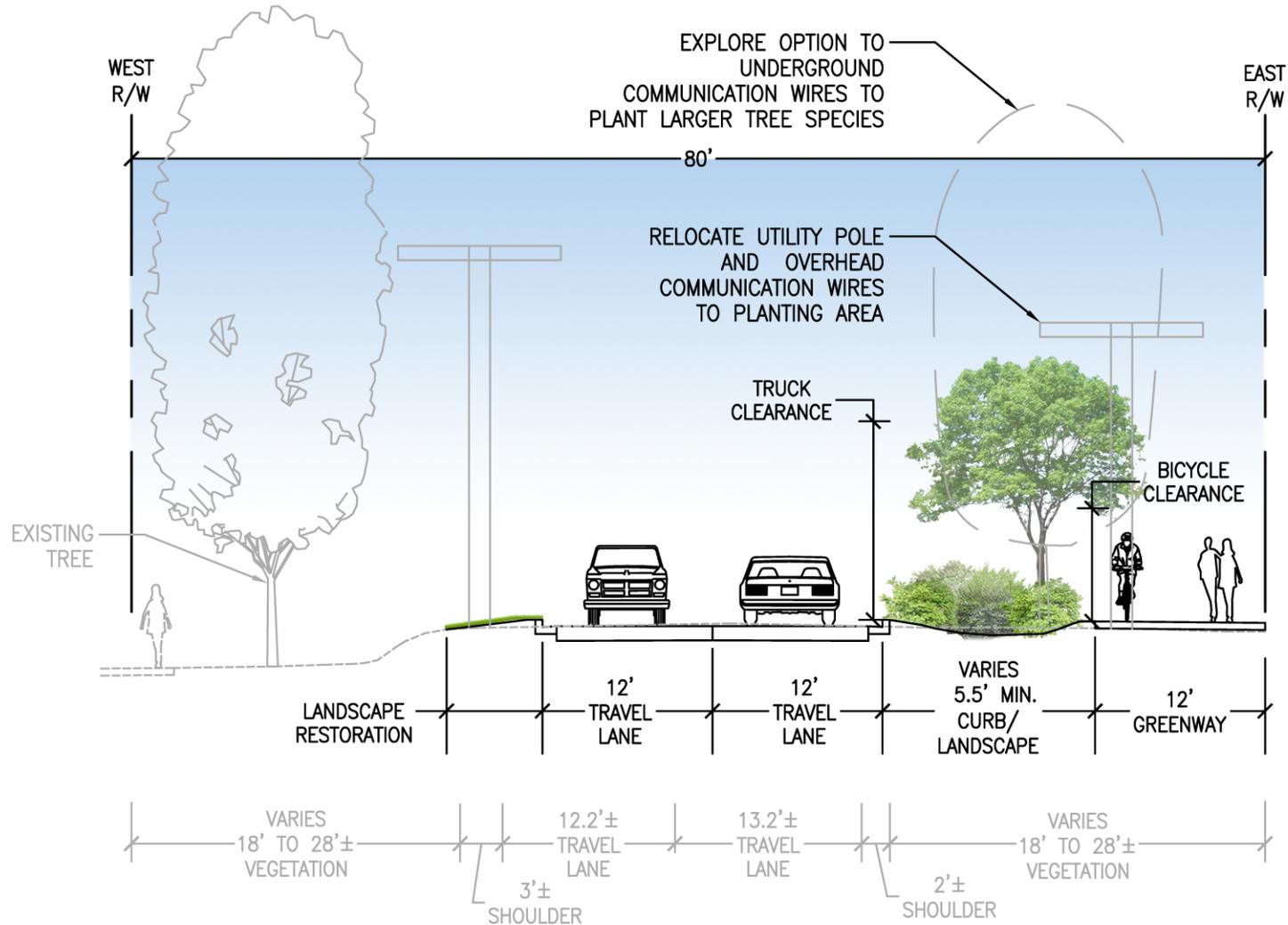


South Greenway Plan (5 of 5)



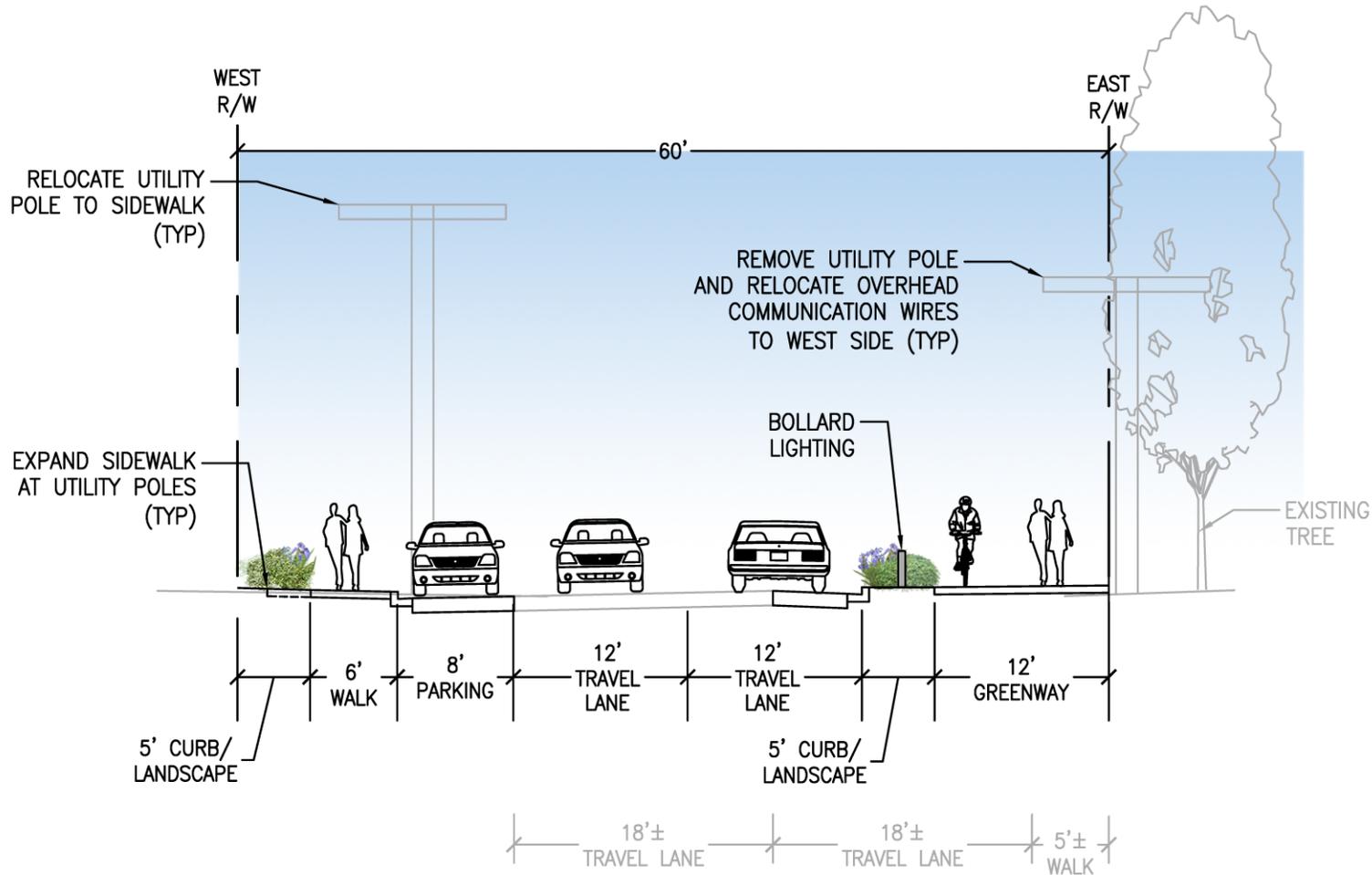
South Greenway Section (1 of 6)

Tolt Avenue Section 2 – Tolt-MacDonald Park South Entrance to Fire Station



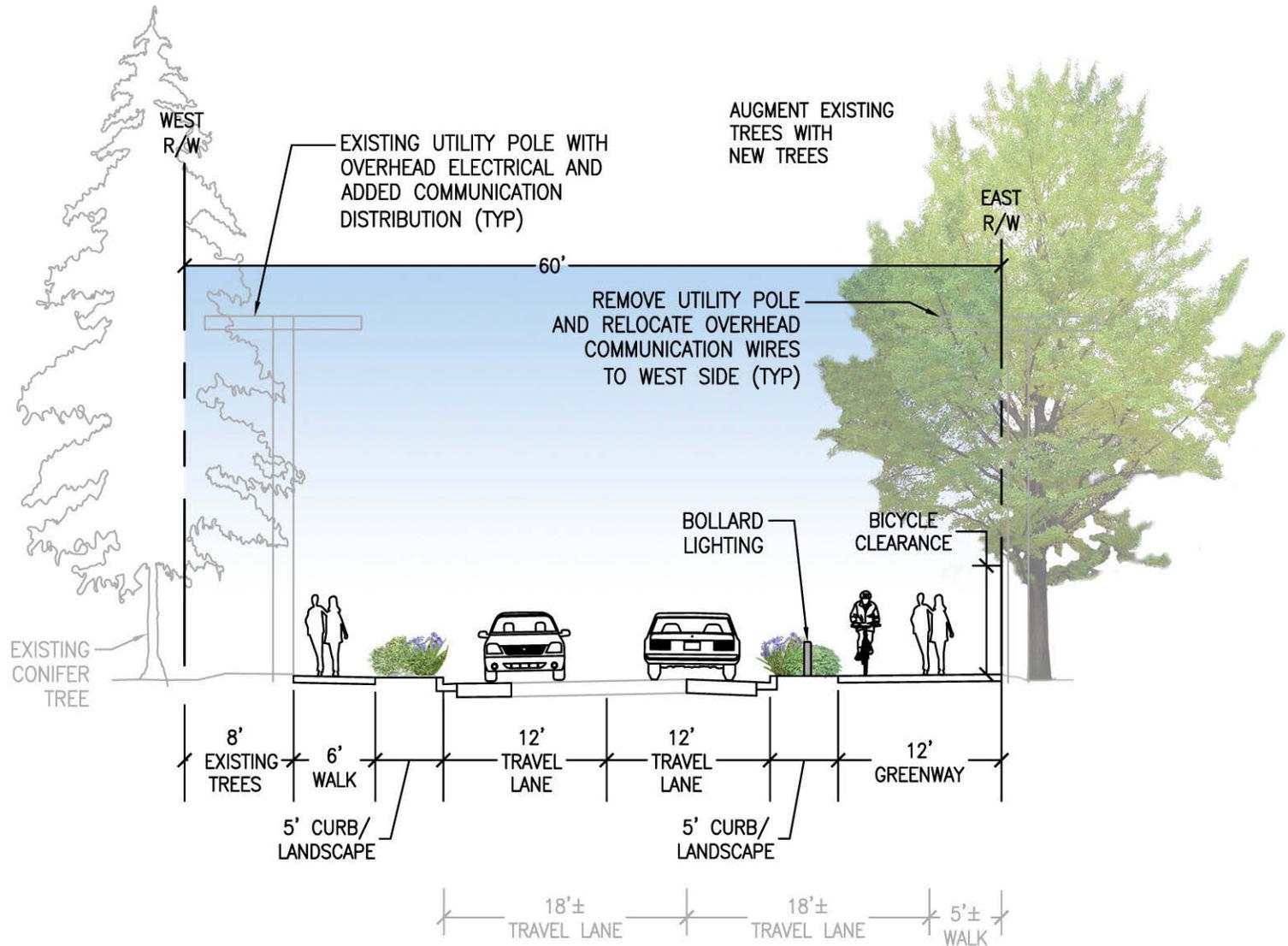
South Greenway Section (2 of 6)

Tolt Avenue Section 3 – Parking Across From Tolt Middle School



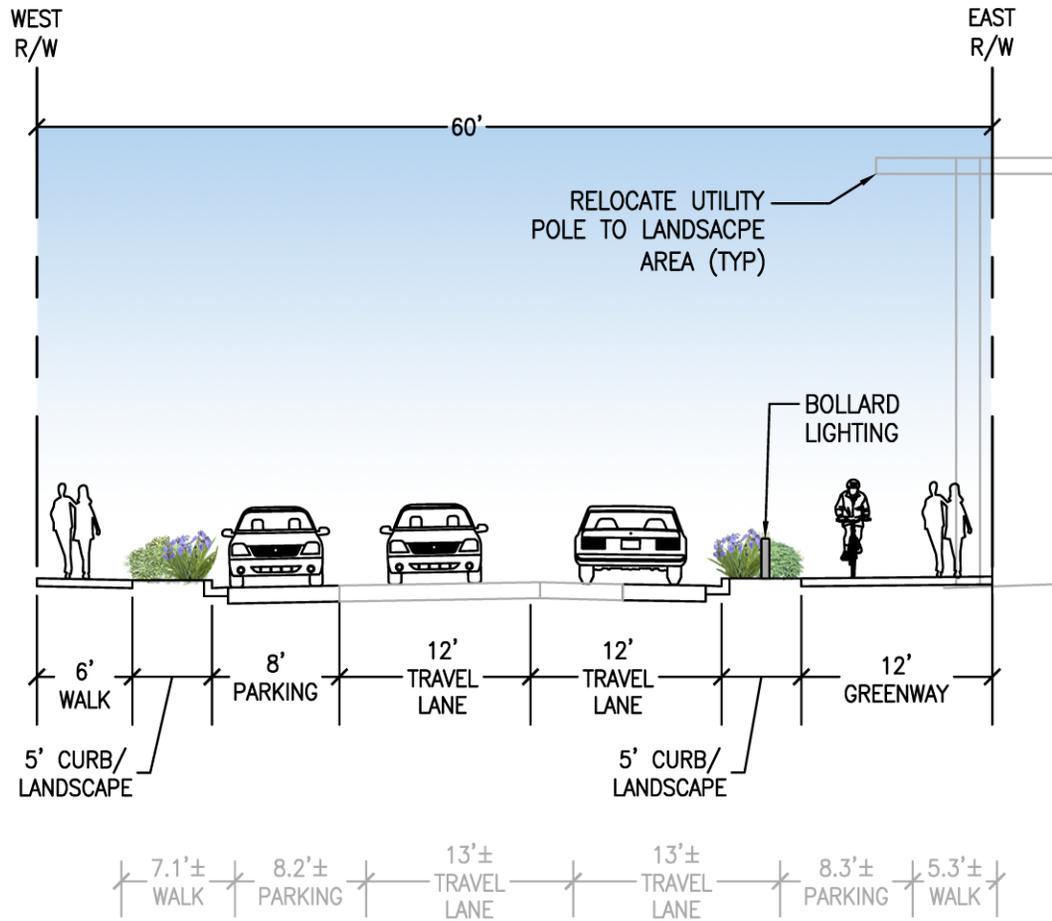
South Greenway Section (3 of 6)

Tolt Avenue Section 4 – No Parking Adjacent to Tree Farm



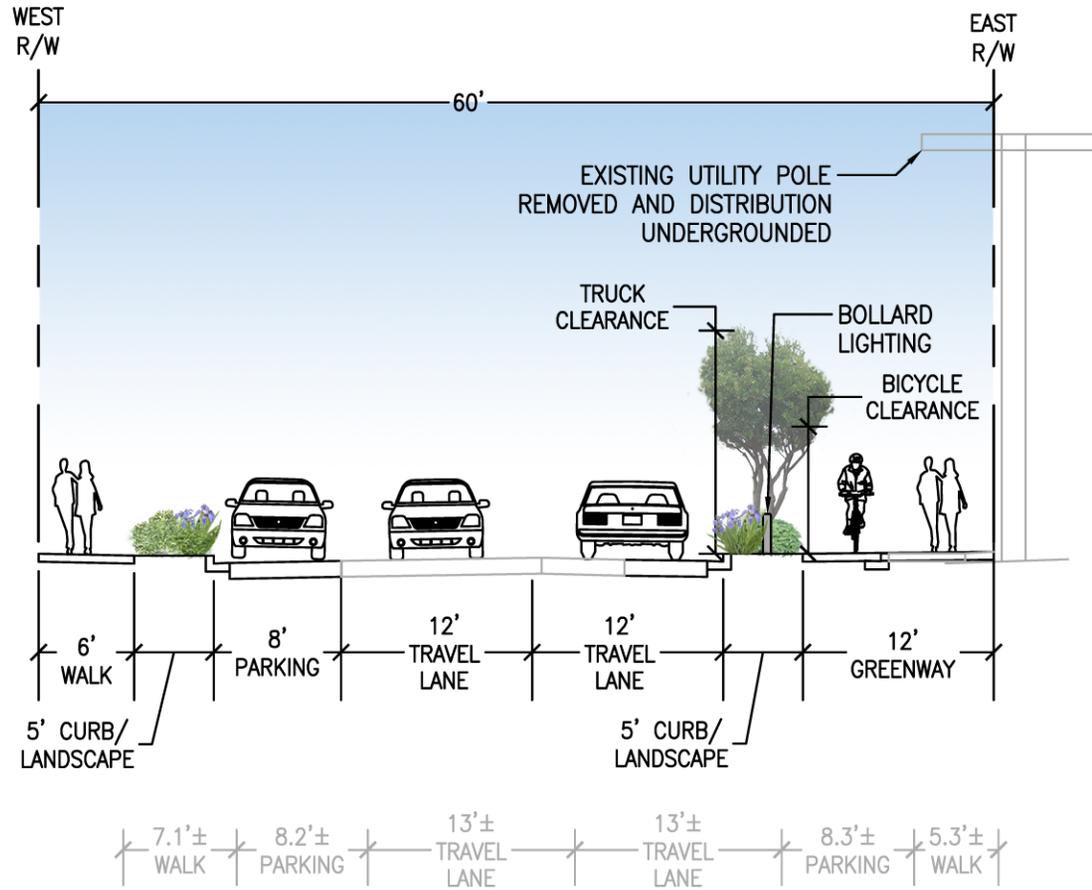
South Greenway Section (4 of 6)

Tolt Avenue Section 5 – E Blanche Street to E Myrtle Street



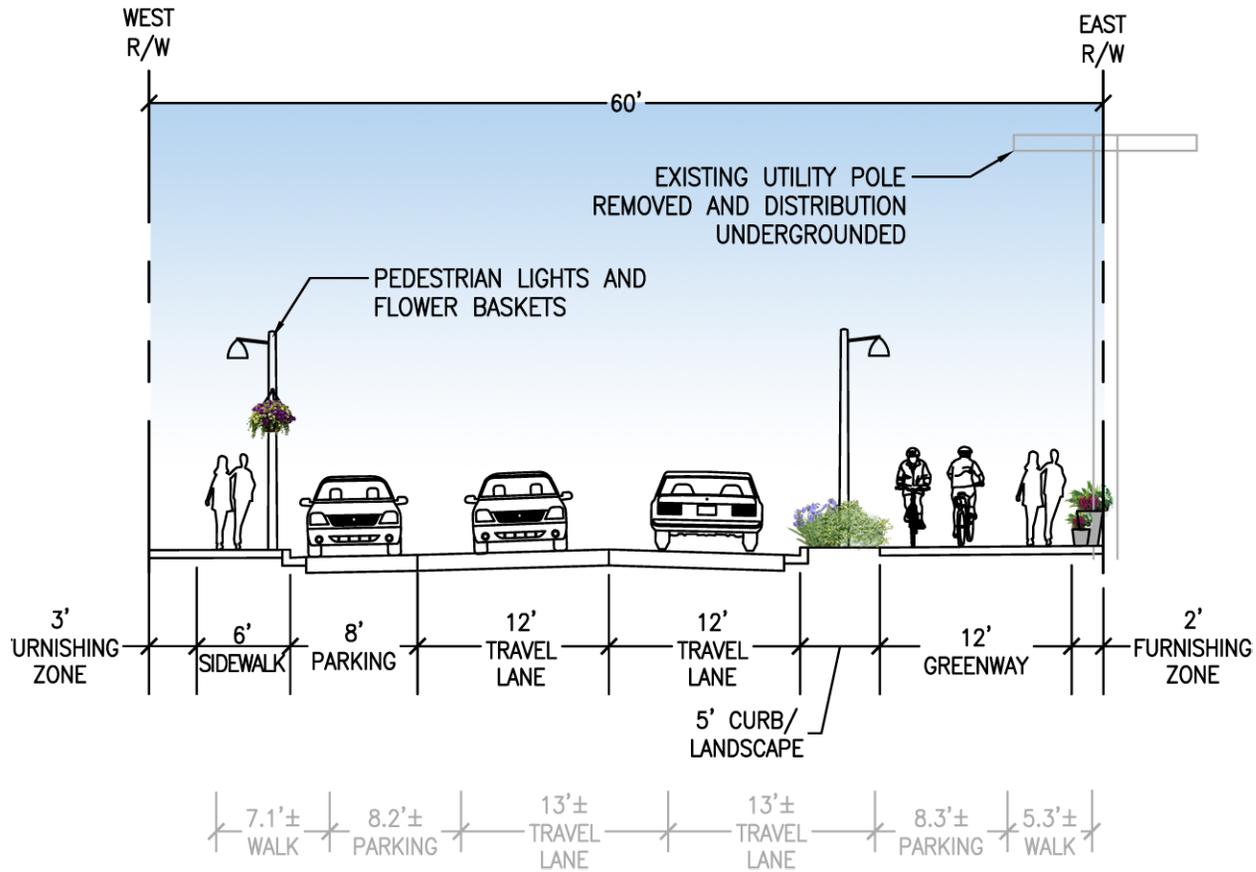
South Greenway Section (5 of 6)

Tolt Avenue Section 6 – E Myrtle Street to E Eugene Street



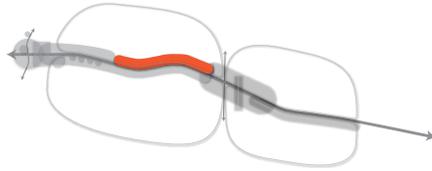
South Greenway Section (6 of 6)

Tolt Avenue Section 7 – E Eugene Street to Entwistle Street





SOUTH ENTRY [SECOND TIER PROJECT]



DESCRIPTION

This project retrofits the west side of Tolt Avenue, opposite the South Greenway, with a new curb, sidewalk and planting strip. Street improvements extend from the existing pedestrian crossing at the Fire Station to Eugene Street. At some locations the existing roadway will be widened to incorporate on-street parking or re-graded to accommodate proposed improvements. In addition to hardscape improvements the project will construct storm drainage infrastructure, add street trees and planting, and site furnishings. Hardscape improvements on the east side of Tolt Avenue, installed for the South Greenway, will remain.

BACKGROUND

The South Entry completes the retrofit of Tolt Avenue south of downtown Carnation. Improvements replace the existing sidewalk and integrate at grade plantings and street trees to buffer the pedestrian realm and create a more comfortable and welcoming street environment. Sidewalk improvements provide a continuous, accessible sidewalk that maintains grades across driveways. At select locations the proposed planting strip is expanded to create curb bulbs that integrate green stormwater infrastructure (GSI), provide traffic calming and create spaces for new street trees. Street trees are typically located at intersections and key locations midblock to extend the tree canopy established in the Central Business District (CBD) south.

Across from the Tolt Middle School existing on-street parking that occupied the gravel shoulder is formalized and integrated into the streetscape.

OBJECTIVE

Response to Project's Guiding Principles:

- **Safe:** Provides a continuous and accessible sidewalk that is buffered from the roadway and extends the full length of the project.
- **Welcoming:** Landscape enhancements and street trees complete the South Entry street retrofit.
- **Maintainable:** Street trees are located at select locations and in curb bulbs to minimize impacts to new pavement and limit long term maintenance.

PREREQUISITES AND SEQUENCING

Retrofits in the South Entry should be completed after the construction of the Tolt Avenue Greenway and CBD streetscape improvements. The existing street has on-street parking and a sidewalk for a majority of the project (though the sidewalk is not ADA accessible) so improvements do not fill an immediate need when compared to other projects in the Action Plan.

AGENCY AND STAKEHOLDER COORDINATION

WSDOT

The final channelization and landscape plan will need to be reviewed by WSDOT.

Property Owners Adjacent to Proposed Improvements

Public outreach should be conducted during final design to inform adjacent land owners of the proposed improvements.

CONSIDERATIONS FOR EXISTING CONDITIONS

Based on site observations and City-provided GIS/survey information there are existing trees and privately maintained fences and landscaping that extend into the public right-of-way that may be impacted by construction. Streetscape retrofits are not proposed outside of the right-of-way but existing site features that encroach into the right-of-way may be impacted depending on the specific location. Temporary construction easements may also be required depending on site specific conditions in order to install improvements and/or to allow proposed retrofits to match existing grades. The following items have been identified, based on City-provided GIS/survey information, during the Action Plan phase:

- Residences across from Tolt Middle School have fences and landscaping that extend into the public right-of-way. At these locations the sidewalk aligns with the back of curb adjacent to on-street parking and the planting strip is located behind the sidewalk. This configuration minimizes impacts to existing site features and utilizes on-street parking as the buffer between the sidewalk and travel lanes. Existing tree root crowns and grades also present design challenges at this location; tree conditions should be evaluated by an arborist during final design.
- At the Carnation Tree Farm property the sidewalk alignment shifts farther away from the right-of-way line to reduce impacts to existing evergreen trees. Alternate paving materials (e.g. rubber sidewalk panels, pervious concrete and gravel surfacing) should be considered to minimize impacts to existing trees. If the planting strip is narrowed to reduce impacts to existing trees, the final width should not be less than four feet.
- The existing NAPA Auto Parts building, across the street from and just north of Blanche Street, is located very close to the public right-of-way. The sidewalk alignment at this location should be evaluated during final design.
- GSI should be incorporated into proposed landscape areas and curb bulbs. Stormwater runoff from the existing roadway is not treated and this retrofit provides an opportunity to integrate GSI facilities and facilitate stormwater infiltration.

- Existing sidewalk grades ramp down to cross several driveway approaches. Proposed improvements prioritize pedestrians at driveways and maintain sidewalk grades across driveways. At several locations this change may impact grades on private property and a temporary construction easement will be required to complete this work.

WAYFINDING AND WAYFINDING UPDATES

An overhead banner sign may be installed to provide vertical elements that help to slow traffic and announce Carnation events. Materials might include the old bridge structure.

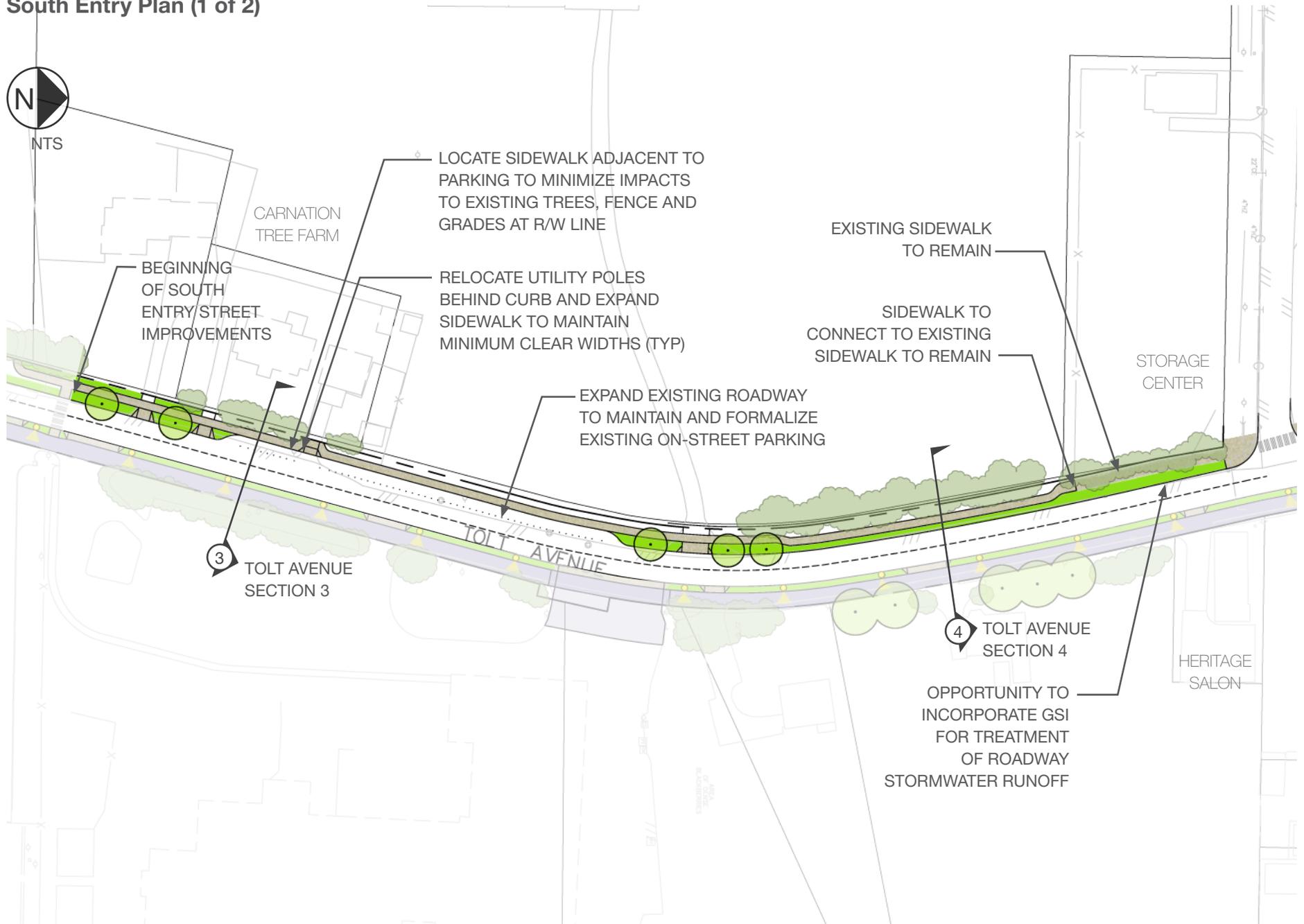
PROJECT COSTS AND FUNDING OPPORTUNITIES

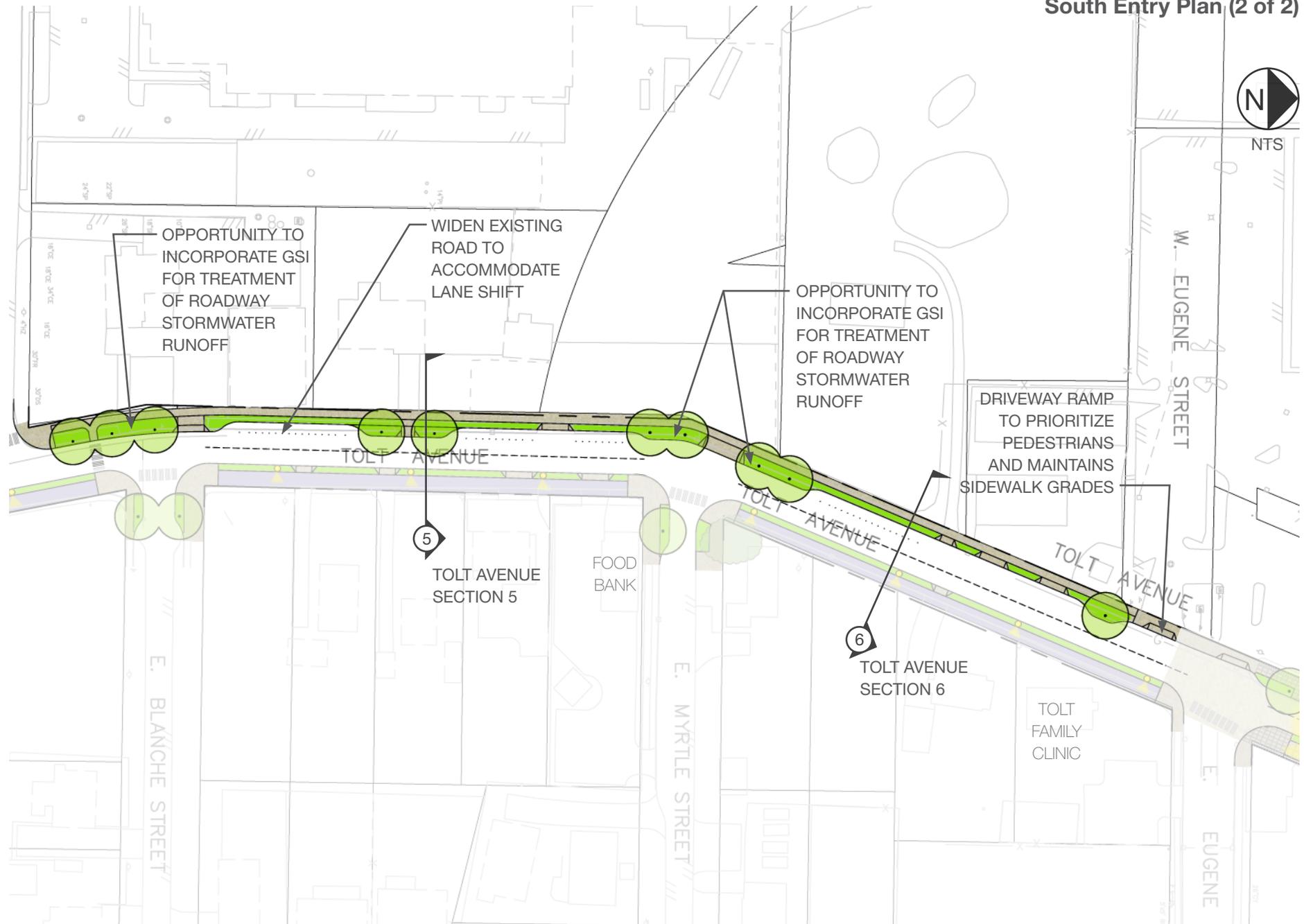
Anticipated projects costs range from \$1,460,000 to \$1,800,000. A summary and breakdown of these costs is provided in Appendix G.

Project Funding

- WSDOT Pedestrian and Bicycle Safety Programs
- State Transportation Alternative Program (TAP) Funds from MAP-21 (includes previous Federal Transportation Enhancements, Safe Routes to School and Recreational Trails program funding)
- Transportation Improvement Board Small City's Programs

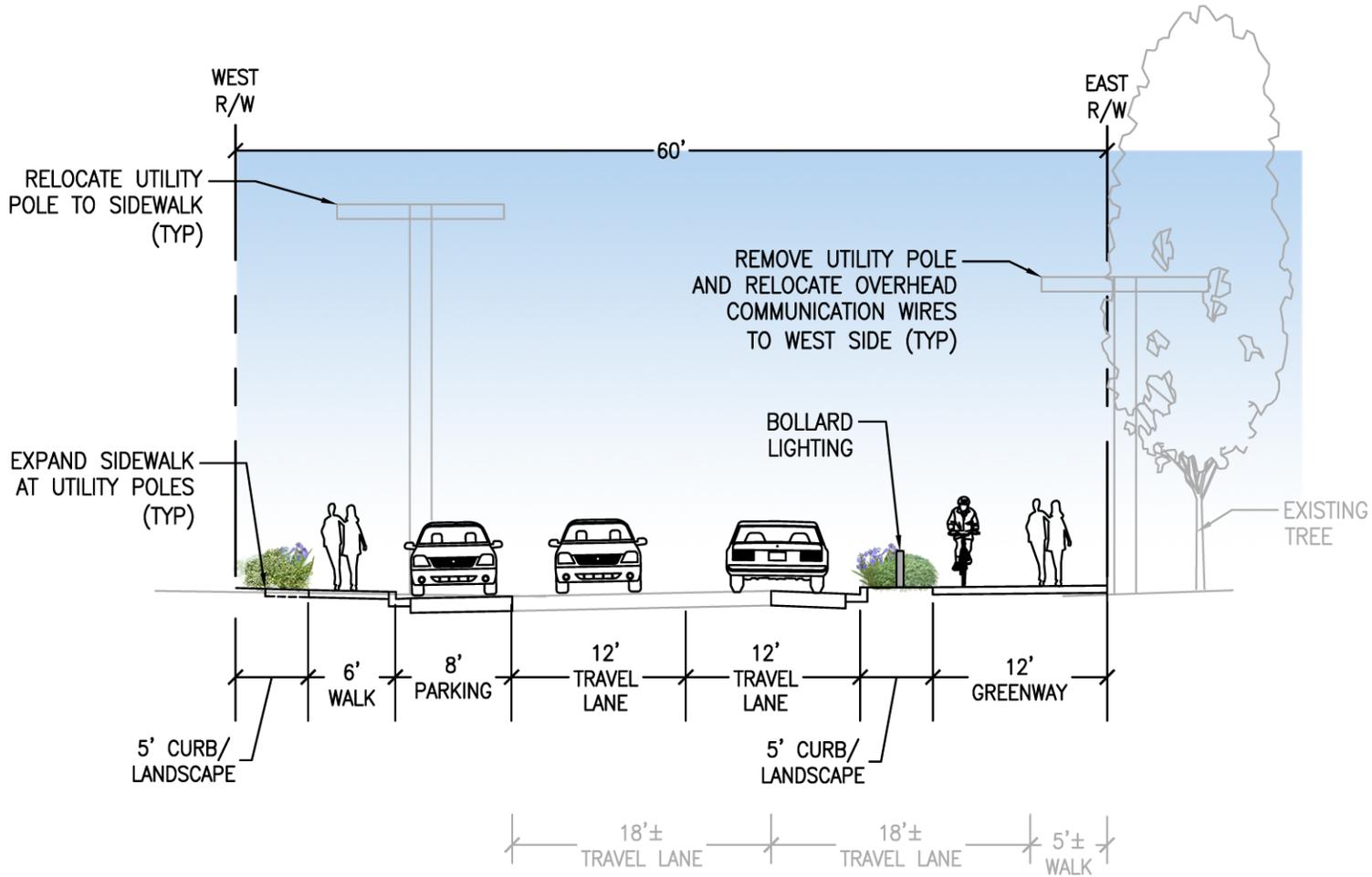
South Entry Plan (1 of 2)





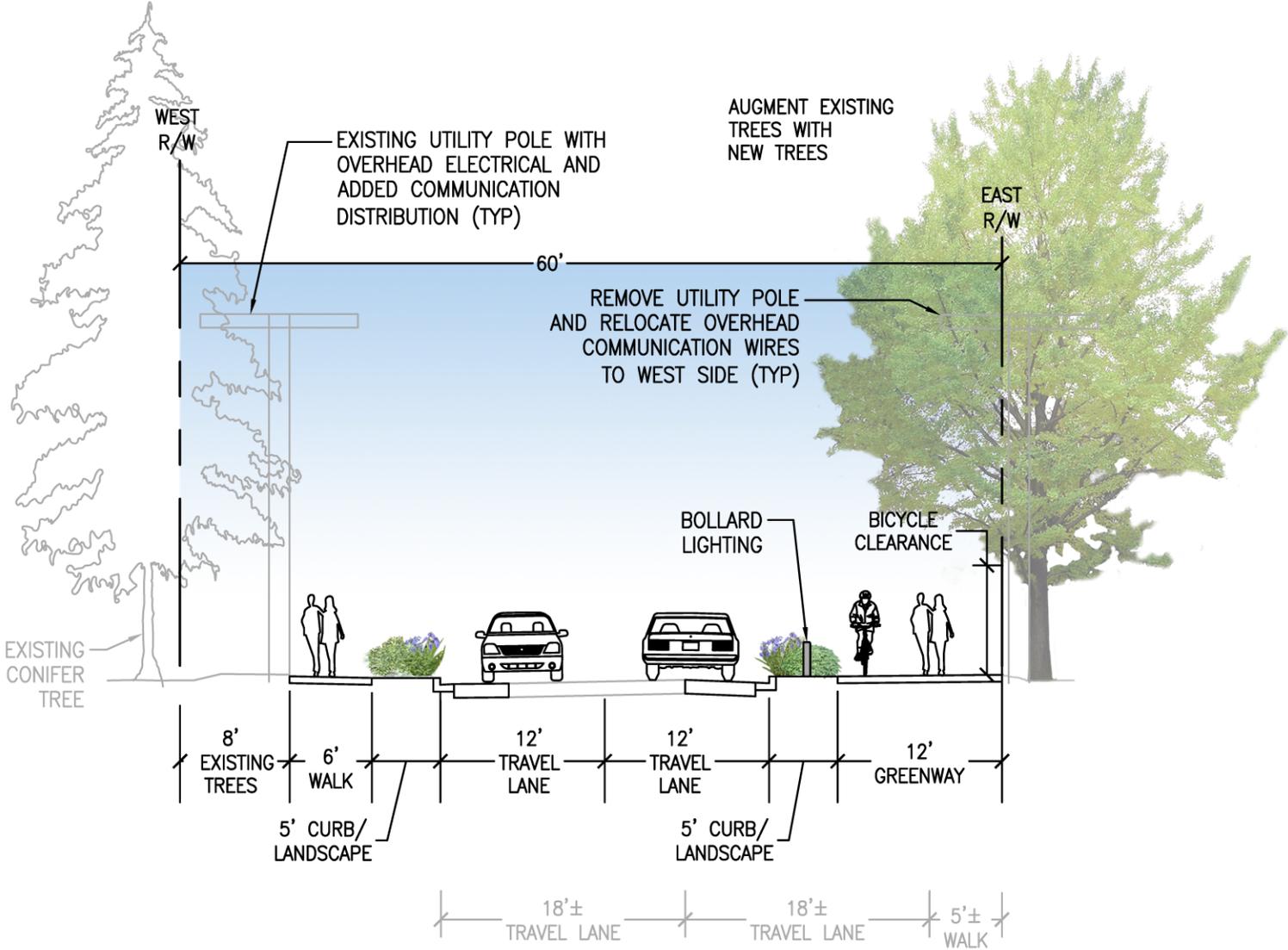
South Entry Section (1 of 4)

Tolt Avenue Section 3 – Parking Across From Tolt Middle School



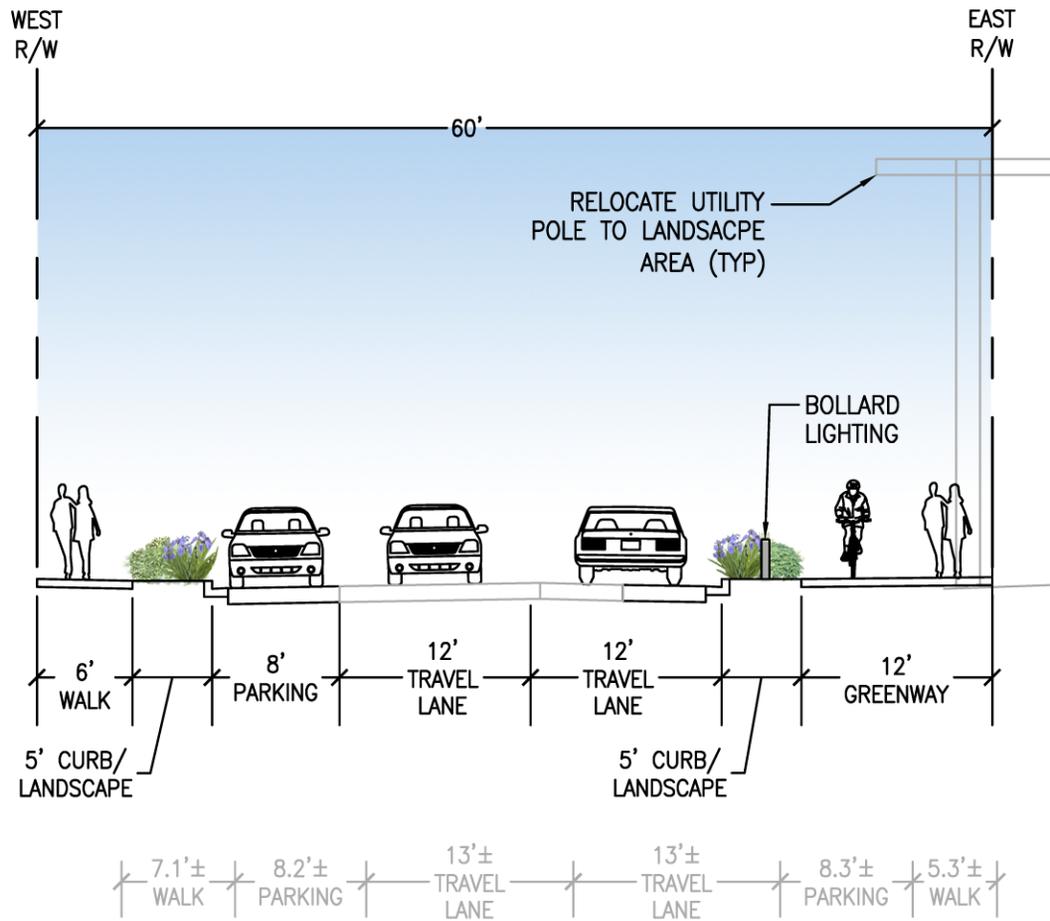
South Entry Section (2 of 4)

Tolt Avenue Section 4 – No Parking Adjacent to Tree Farm



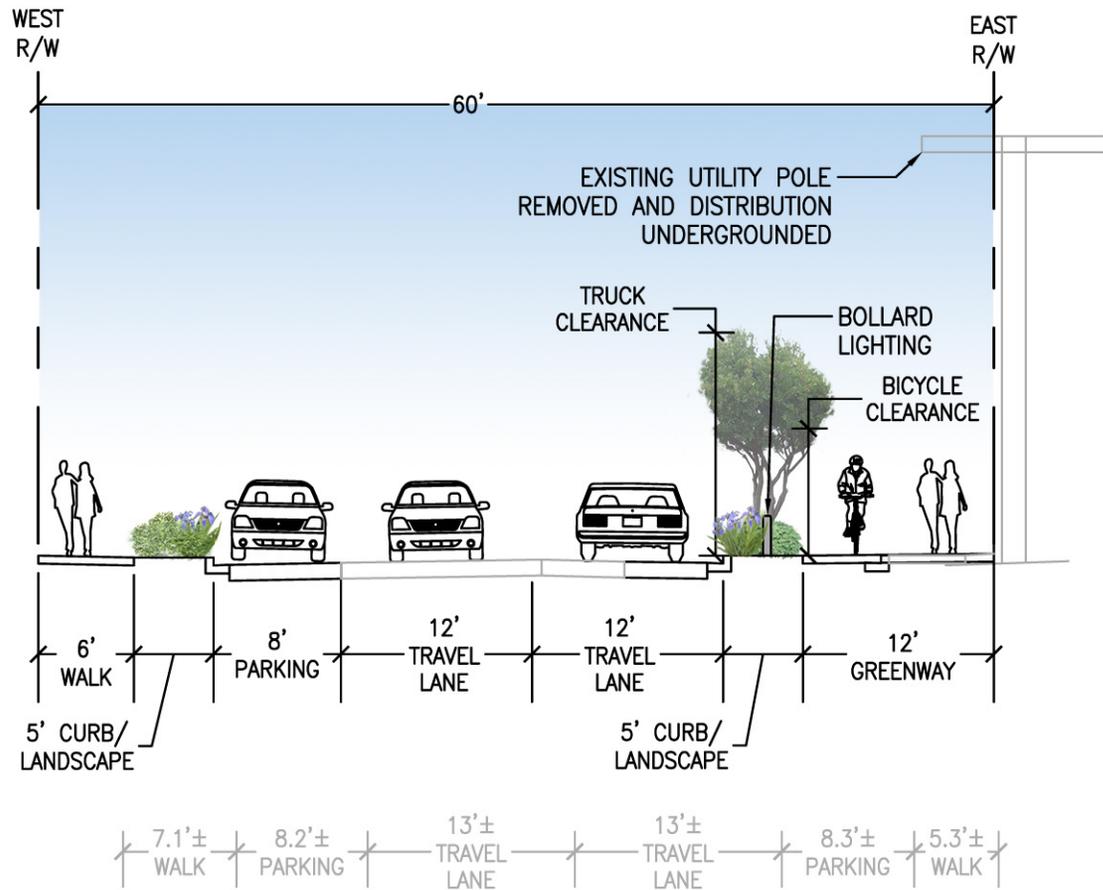
South Entry Section (3 of 4)

Tolt Avenue Section 5 – E Blanche Street to E Myrtle Street



South Entry Section (4 of 4)

Tolt Avenue Section 6 – E Myrtle Street to E Eugene Street

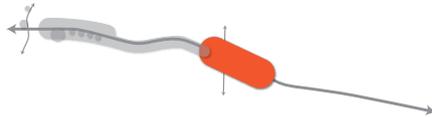


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CENTRAL BUSINESS DISTRICT [FIRST TIER PROJECT]



DESCRIPTION

This project consists of constructing full street improvements adjacent to the City's Central Business District (CBD) zone between Eugene Street and Rutherford Street. The scope of work includes all hardscape improvements, including street re-grading and paving, power undergrounding, street and pedestrian lighting, storm drainage infrastructure, street trees and planting, and site furnishings. Previously constructed work for the South Greenway is not intended to be replaced.

In addition to work within the Tolt Avenue right-of-way the project includes striping, signage, and wayfinding for on-street parking that will be relocated from Tolt Avenue to adjacent public streets.

BACKGROUND

This project establishes Carnation's CBD as a destination with a new streetscape that supports on-street and off-street activities. Drivers entering the CBD from both directions will encounter a new concrete roadway that suggests Tolt Avenue as an urban main street. The transition to a concrete roadway and introduction of on-street parking along both sides of Tolt Avenue between Entwistle Street and Commerical Street represent the final steps in a series of improvements designed to let users know they have entered the commerical core. Narrowed travel and parking lanes also provide traffic calming and allow the expansion of the existing pedestrian realm.

Pedestrians and bicyclists entering the CBD on the Greenway from both directions will also experience a change as the Greenway terminates at the downtown core and transitions to a wide, shared sidewalk between

Central Business District

Entwistle Street and Commercial Street. Bicycle parking, signage and other urban streetscape elements alert Greenway users that they are entering a shared space. Continuous planting strips located along the Greenway give way to on-street parking to provide access to adjacent businesses and support downtown activities.

Large street trees anchor street intersections and provide additional traffic calming while existing overhead utility wires are relocated underground to open the streetscape. At-grade planting areas are limited to street intersections for maintenance considerations and should integrate green stormwater infrastructure (GSI) facilities to manage and treat stormwater runoff from the roadway.

Existing on-street parking from the east side of Tolt Avenue, between Eugene Street and Entwistle Street and between Commercial Street and Rutherford Street, is relocated along adjacent public streets to maintain parking capacity in the CBD. On these adjacent streets (McKinley and Stossel Avenues and Eugene, Bird, Commercial and Rutherford Streets) on-street parking is formalized, striped, and signed.

Three typical street sections illustrate proposed improvements within the CBD and address varying right-of-way widths and the location of on-street parking; the south block of the CBD has a 60' right-of-way, while the northern three blocks have a 70' right-of-way.

Annotated plans are provided for all four blocks along Tolt Avenue.

OBJECTIVE

Response to Project's Guiding Principles:

- **Safe:** Street improvements redefine the roadway proving traffic calming and slower roadway speeds. Curb bulbs at intersections shorten pedestrian crossings and wider sidewalks provide more space for pedestrians.
- **Welcoming:** Benches, plantings, bicycle racks, wayfinding signage and other streetscape elements support a vibrant pedestrian environment that encourages people to get out of their car and explore downtown Carnation.
- **Authentic:** A variety of street furnishings support Carnation's small-town feel and provide opportunities for an evolving streetscape. The termination of the Tolt Avenue Greenway within the CBD also provides a unique asset for Carnation's CBD.
- **Place-making:** Expanded and accessible curb bulbs and wider sidewalks provide opportunities for public gathering and adjacent businesses to construct outdoor seating.
- **Cohesive:** Plantings, pavement finish, pedestrian and street lighting and other streetscape elements set a clear, distinguishable tone that identifies the CBD as a specific place along Tolt Avenue.
- **Maintainable:** Street trees are located at intersections and in larger planting areas to minimize tree maintenance needs and provide for root growth. A

concrete roadway reduces annual street maintenance, repairs and impacts to adjacent businesses.

PREREQUISITES AND SEQUENCING

This is a First Tier project. Construction of the South Greenway, which provides improved access from major trip generators south of the Commercial Core, is recommended prior to reconstructing the Central Business District streetscape.

Power undergrounding is provided as a part of this project instead of a separate, earlier project to ensure that vaults and handholds are located (horizontally and vertically) to work with proposed street improvements.

The CBD is recommended as a single project to simplify the construction and disturbance to the commercial core, reduce costs for temporary controls and facilities and to increase the likelihood of receiving funding from agencies and organizations that look to fund corridor projects as opposed to independent blocks of infrastructure improvements. However, it may be possible and/or desirable to construct this project as separate phases by separating the area south of Entwistle Street and the area north of Commercial Street. Regardless of the future construction phasing design work for this entire project should be completed as a part of one contract.

AGENCY AND STAKEHOLDER COORDINATION

WSDOT

Close coordination will be required with WSDOT to approve the final plans for the roadway and to develop traffic control plans. Preliminary feedback from WSDOT during the planning study indicated that proposed 12-foot travel lanes and eight-foot parking lanes are adequate to meet traffic operations. Detailed engineering studies will be required at intersections to show that curb bulbs and other pedestrian improvements do not impact turning movements to and from Tolt Avenue. A landscape review will also be required.

PSE

The power undergrounding design will be completed by PSE. Coordination with PSE should start at project kick-off to ensure PSE understands the project goals and importance of horizontal layout. Street lighting should also be coordinated with and designed by PSE/Intolight.

CONSIDERATIONS FOR EXISTING CONDITIONS

Cross slopes within the existing travel lanes and on-street parking stalls are greater than 2 percent. Spot field measurements indicate existing cross slopes up to seven percent in travel lanes and 10 percent in parking areas. These cross slopes limit the widening of existing public

Central Business District

sidewalks while maintaining ADA compliant cross slopes. To expand the sidewalks, maintain ADA compliant grades, and construct a six-inch traffic curb, the existing roadway must be re-graded.

Undergrounding power distribution in the downtown core will require new service connections at existing buildings; these connections currently happen above ground but will need to be reconfigured to be consistent with underground distribution. The costs for updated service connections, which include reworking connection points at the face of building, will vary by property and require close coordination with property owners. The power undergrounding design should also be closely coordinated with pedestrian improvements to limit vaults and handholds located in the clear path of travel. The horizontal location of the underground joint utility trench (all power and communications) will also need to be coordinated to work with proposed street trees, GSI facilities, and stormwater infiltration facilities.

A geotechnical evaluation of subsurface soils should be performed at locations identified for GSI. Existing infiltration facilities in the public right-of-way may provide sufficient information to characterize existing subsurface soils and size GSI systems but should be reviewed by a geotechnical engineer.

Tree and stormwater infiltration facilities need to be coordinated with existing utility locations (e.g. the public watermain). Base maps of the existing water distribution system indicate the water main is located approximately 16 to 17 feet from the eastern right-of-way line north of

Entwistle Street (one to two feet beyond the proposed face of curb) and six to seven feet from the eastern right-of-way line south of Entwistle Street (middle of the Greenway)

WAYFINDING AND WAYFINDING UPDATES

The ends of the South and North Greenway, where cyclists transition into the downtown core as pedestrians, are key locations for information kiosks. These should be easily visible from the Greenway, and bicycle racks and amenities should be located nearby. Locations include 1) the east side of Tolt Avenue just north of Entwistle Street, and 2) the east side of Tolt Avenue just south of Commercial Street.

As discussed in the Loop Paths project, pedestrian-oriented directional signs should be placed on Tolt Avenue at the epicenter of the Loop Paths. This may be at Entwistle Street (in the near-term) or Bird Street (depending on Bird Street and Hockert Park design). These signs mark turns in the Loop Paths.

En-route markers on the east side of Tolt Avenue from Entwistle Street to Commercial Street should clearly show users that they have entered the downtown core and that the Greenway continues outside of those few blocks. On the west side, the en-route markers should notify users that they are downtown and on the Red Loop.

At Bird Street, a pedestrian-oriented directional sign on the west side points people to the Senior Center, and on



the east side, guides people to the Farmers Market and Hockert Park.

Automobile-oriented parking signs point motorists to parking on side streets. These should be located at Entwistle Street and Commercial Street on both sides of Tolt Avenue. (Bird Street parking is fairly obvious from Tolt Avenue and Stossel Avenue and will likely not be usable during large events when visitors would most need directional parking signs. As a low priority, parking signs could be added to Bird Street, but may be confusing on event days.) Painting and signs on the side streets should clarify where street parking is allowed. Parking and directional signs should be grouped when they are in the same location to reduce clutter.

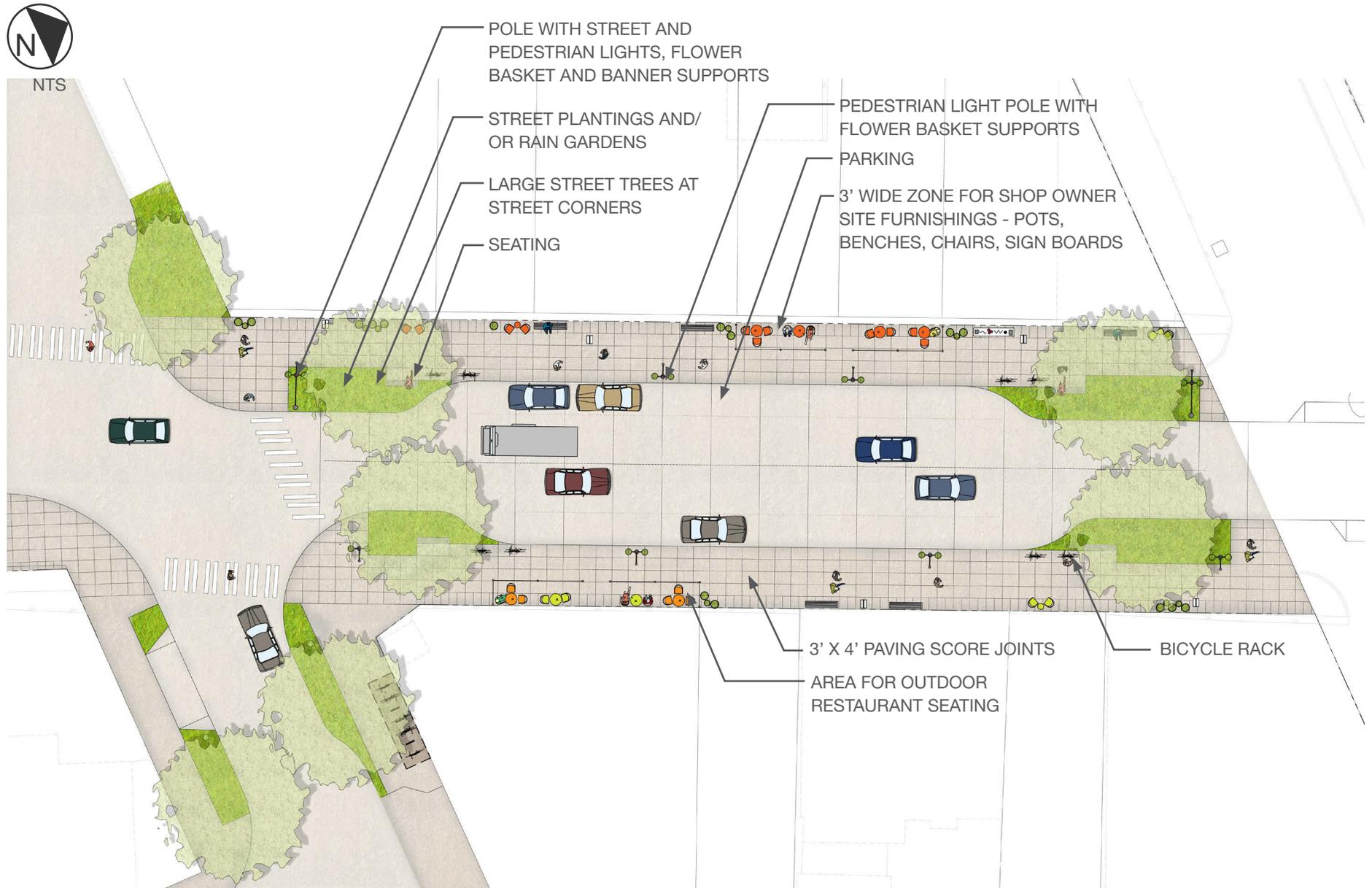
PROJECT COSTS AND FUNDING OPPORTUNITIES

Anticipated projects costs range from \$6,080,000 to \$7,450,000. A summary and breakdown of these costs is provided in Appendix G.

Project Funding

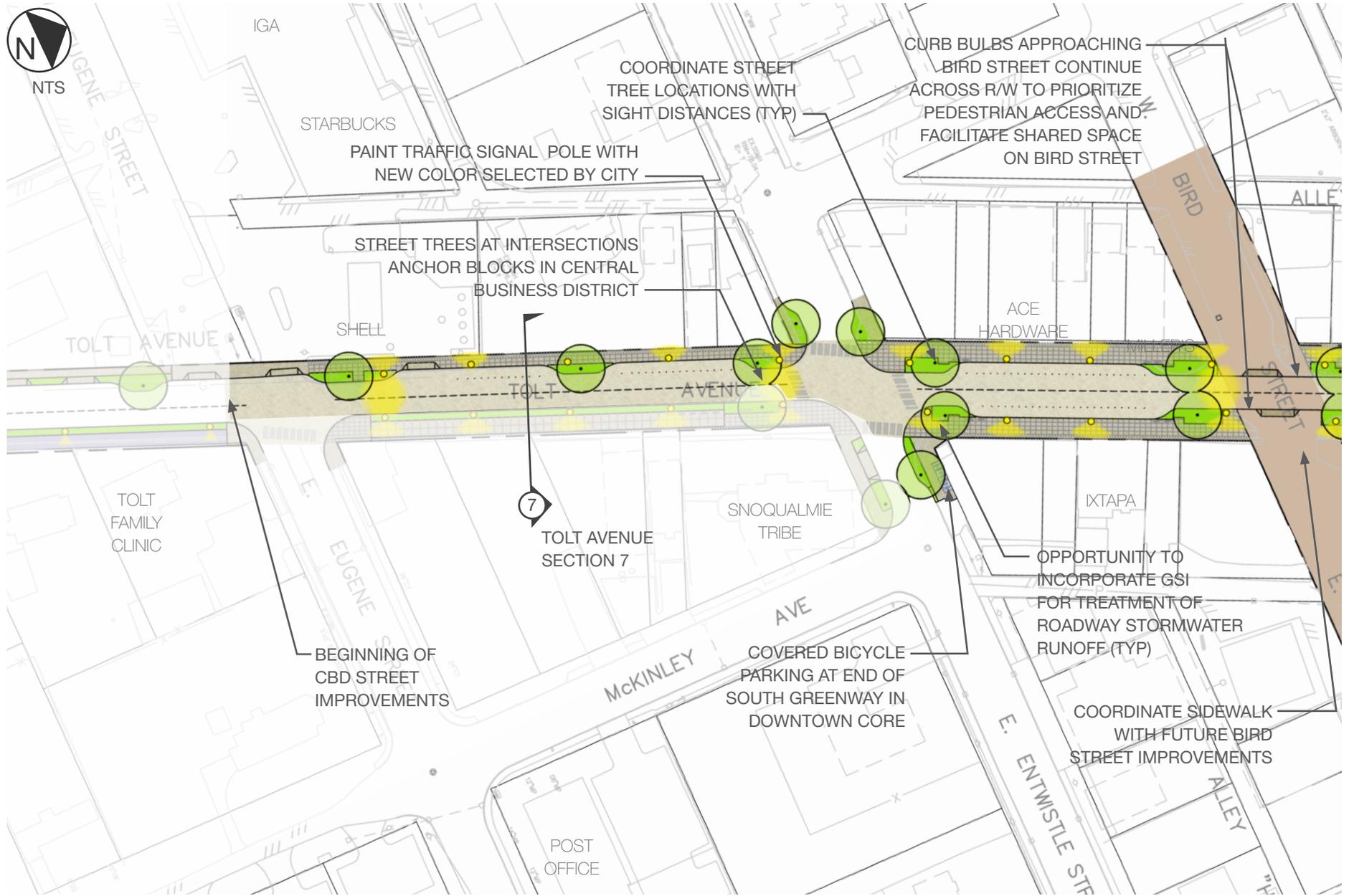
- Transportation Improvement Board Small City's Programs
- WSDOT through reallocation of delayed 2013 paving project
- WSDOT Pedestrian and Bicycle Safety Programs
- PSE – 60/40 match for undergrounding
- Department of Ecology Fiscal Year Stormwater Grant Program
- State Transportation Alternative Program (TAP) Funds from MAP-21 (includes previous Federal Transportation Enhancements)
 - <http://www.ecy.wa.gov/programs/wq/funding/funding.html>
- Puget Sound Regional Council Rural Town Centers and Corridors Funding
- National Endowment for the Arts Our Town Grants
- Private funding through a new Local Improvement District (LID).
- Main Street Tax Credit Program

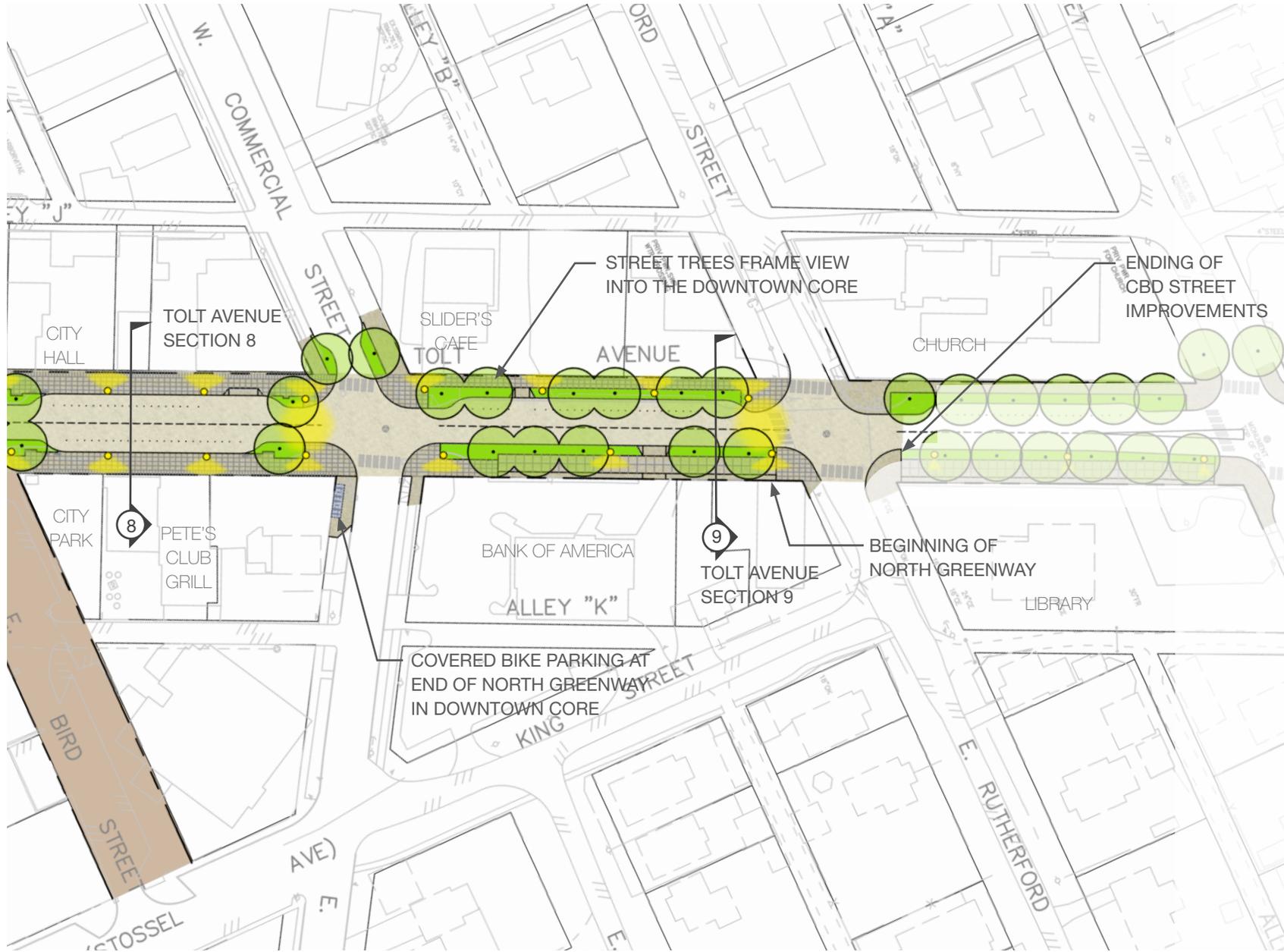
Central Business District Detail Plan (1 of 1)





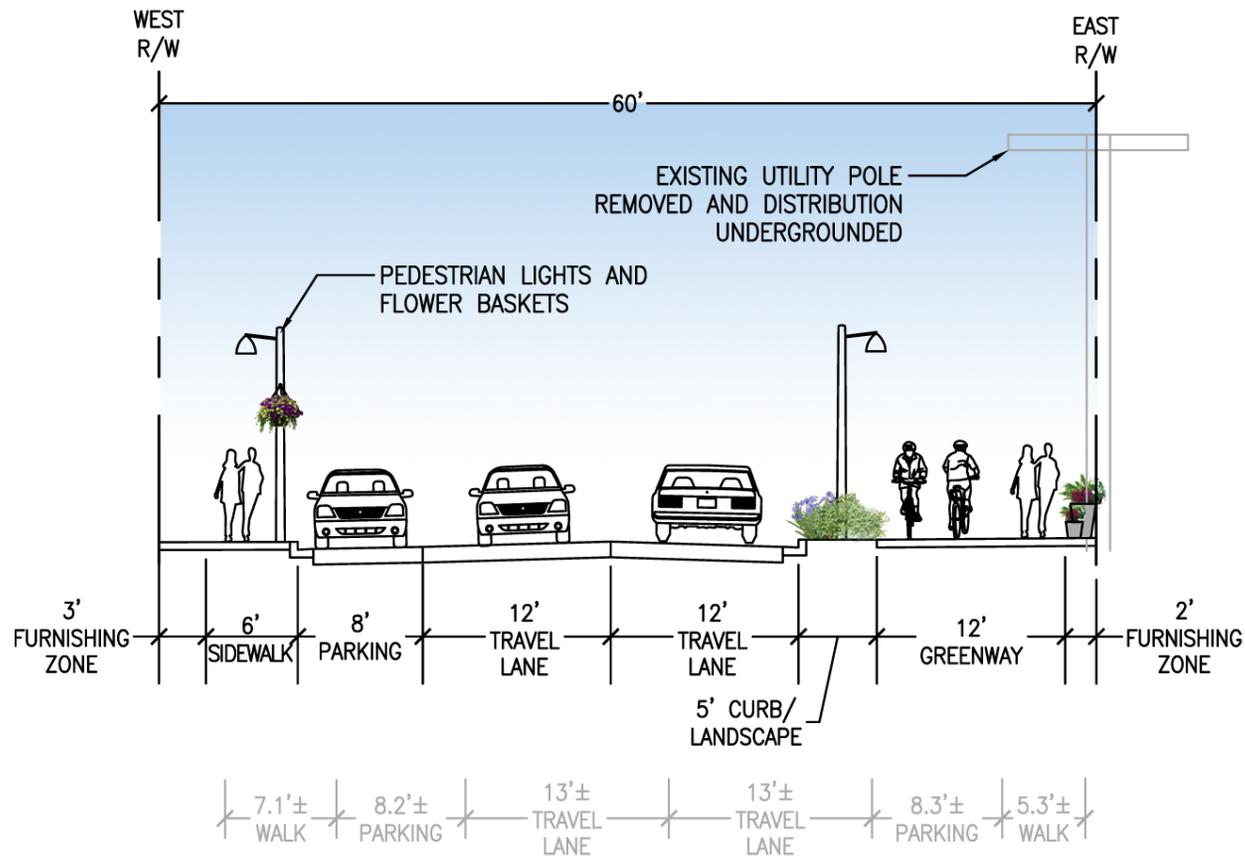
Central Business District Plan (1 of 2)





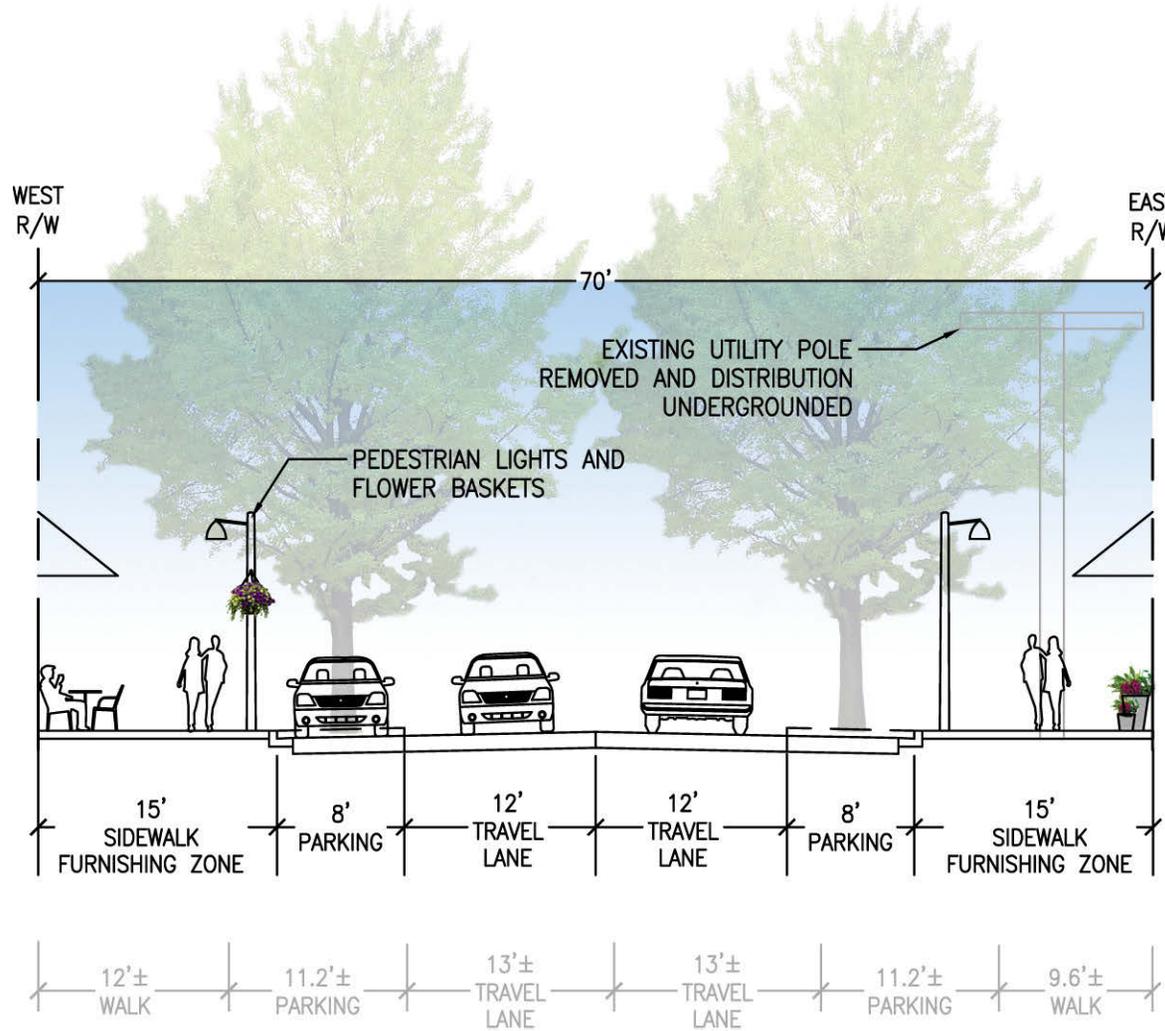
Central Business District Section (1 of 3)

Tolt Avenue Section 7 – E Eugene Street to Entwistle Street



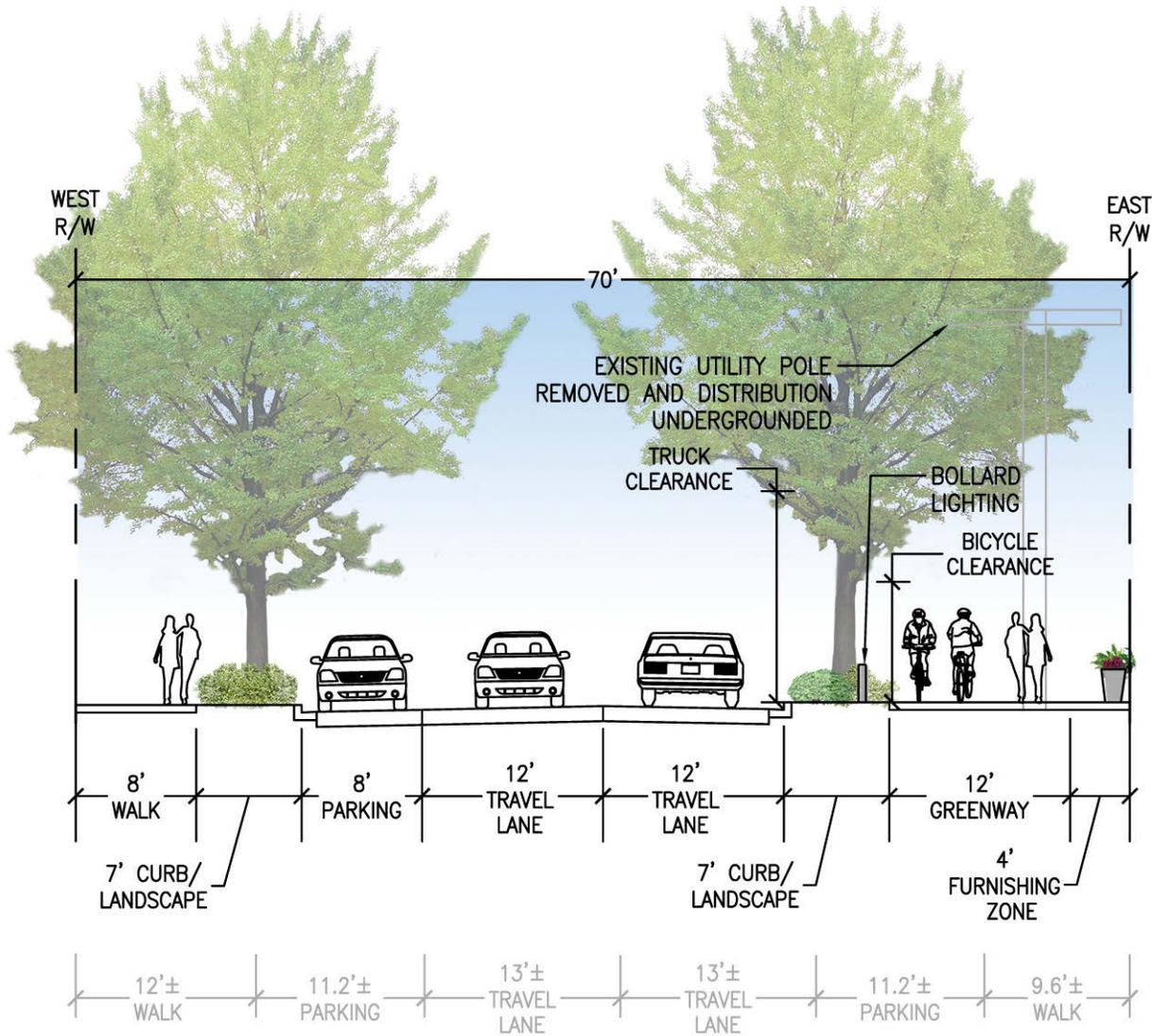
Central Business District Section (2 of 3)

Tolt Avenue Section 8 – Entwistle Street to Commercial Street



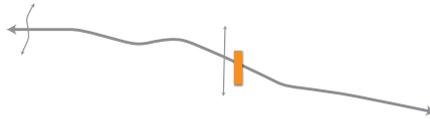
Central Business District Section (3 of 3)

Tolt Avenue Section 9 – Commercial Street to Rutherford Street





BIRD STREET [OPPORTUNISTIC PROJECT]



DESCRIPTION

The Bird Street project includes design and construction of Bird Street between Stephens Avenue and Stossel Avenue as a “people street” and updating of Fred Hockert Park to better relate to Bird Street.

BACKGROUND

Bird Street is the central public space in Carnation, connecting the Sno-Valley Senior Center, City Hall, downtown businesses, City Park, Hopelink, the Carnation Farmers Market, and Fred Hockert Park. Bird Street should be designed to flexibly accommodate a variety of functions, such as community gathering, pedestrian movement (the Loop Paths alignment could follow Bird Street), resting, parking, events, and bus stop access. At different times, the street might accommodate different

activities, for example, parking areas may be used for market activities or celebrations and festivals. However, pedestrian comfort and safety should be a primary concern. A curbless “festival street” or “woonerf” concept may accomplish that.

When someone reaches Bird Street, there should be an obvious sense that s/he has arrived in Carnation’s heart. The paving and other materials should clearly state that it is a special place, making it easy to find and signifying where s/he is in Carnation.

The neighboring parks, City Park and Fred Hockert Park, should be incorporated in the design, and their space should be maximized to support complementary activities (e.g., children’s play, quiet resting places, picnic areas, etc.).

The intersection of Bird Street with Tolt Avenue should feature special paving to signify that it is more of a

Bird Street

pedestrian zone than an automobile place. If special paving is installed on Bird Street, it should also cover the intersection. Bird Street's grade should be flush with the sidewalk so that the slight ramp up from Tolt Avenue onto Bird Street notifies motorists of the pedestrian priority and eliminates a street crossing for pedestrians on Tolt Avenue.

City staff may need to review existing design guidelines for buildings fronting Bird Street to ensure appropriate building to street interaction. New development fronting Bird Street should be civic in nature (e.g., a community center) or activate the street (e.g., restaurants, cafés, or shops). Buildings should bolster public gathering with pedestrian amenities (e.g., outdoor seating, weather protection, and low-level lighting), frequent entrances oriented to Bird Street and prominent corners, and plenty of transparent windows to connect the interior to the street. The Senior Center also has an opportunity to design their outdoor space and solarium to better relate to Bird Street, creating a cohesive anchor at the west end.

To summarize the specific actions, the Bird Street project includes the following:

- Review and update existing design guidelines to ensure development fronting Bird Street creates a pedestrian “main street.”
- Encourage the development of civic uses, such as a community center, on Bird Street.
- Seek consultant services to design Bird Street. Ensure the following elements in the design:

- Flexibly accommodate a range of activities for different times.
 - Unify Bird Street and set it apart as a “people street” with special paving, lights, planting, etc.
 - Continue special paving through Tolt Avenue.
 - Continue Tolt Avenue sidewalks through Bird Street intersection.
 - Provide an inviting gateway to Hockert and City Park and maximize their complementary uses.
- Work with the Senior Center to enhance interaction between their outdoor or solarium space and Bird Street.

OBJECTIVE

Bird Street is an important project for creating a central heart in Carnation. It would offer a variety of spaces tying central Carnation together with active park and pedestrian uses and comfortable resting places.

Response to project's Guiding Principles:

- Safe: The Bird Street people street supports safe walking and resting opportunities, especially by emphasizing a pedestrian crossing over Tolt Avenue.
- Welcoming: A central gathering space designed for multiple purposes would help Carnation become even more welcoming to visitors and people wanting to use the downtown. The obvious paving would make it a

wayfinding feature, helping visitors to be aware of their location and find their way.

- **Authentic:** The design of Bird Street should enhance the small town feel with a simple and context-sensitive design, embrace agriculture (possibly just by supporting the Farmers Market), and perhaps honor the river through natural water drainage systems. It also supports the existing local Carnation businesses.
- **Cohesive:** The materials and features used on Bird Street should complement those on Tolt Avenue and in other wayfinding projects.
- **Place-making:** Bird Street is the central space that serves as Carnation’s heart and town green.
- **Maintainable:** Design of Bird Street should prioritize the use of easily maintainable materials and features.

PREREQUISITES AND SEQUENCING

Bird Street is an Opportunistic Project. Ideally, the Central Business District and Bird Street projects would be designed simultaneously. Construction of Bird Street would also be most efficient when the downtown core segment of Tolt Avenue is also undergoing construction. However, regardless of the sequence of design and construction of Tolt Avenue and Bird Street, the intersection design should respect the objectives of both streets. If Bird Street is designed before improving the Central Business District, ensure compatibility with the proposed Tolt Avenue streetscape. Alternatively, if the Central Business District is designed first, ensure enough

flexibility to accommodate a range of Bird Street design options.

Hockert Park redesign, particularly its entrance from Bird Street, should be considered when Bird Street is designed.

AGENCY AND STAKEHOLDER COORDINATION

WSDOT

Improvements to Bird Street, particularly regarding special paving over Tolt Avenue, must be coordinated with WSDOT to avoid impacts to state route travel.

Hopelink, Farmers Market, Neighboring Businesses, and Private Developers

Existing Bird Street users and future land developers should be involved in the Bird Street design to prevent impacts and reach a design that benefits all neighboring users. The City should work with businesses to minimize the effects of lost access during construction.

PSE

Coordinate with PSE to underground power at Bird Street in conjunction with the Tolt Avenue downtown core segment. Note: it may be most cost effective to place wires above ground in the alleys east and west of Tolt Avenue.

Bird Street

City of Carnation (Parks)

The upgrading of Fred Hockert Park and integration of City Park requires Parks involvement and input. As Bird Street itself will become more of a park, long-term Parks needs should be considered.

WAYFINDING AND WAYFINDING UPDATES

The materials used on Bird Street are a wayfinding element. The alignment of en-route markers—either on Entwistle Street only or Entwistle, Commercial, and Bird Streets—must be considered during this project. Pedestrian-oriented and automobile-oriented (particularly for parking) signs must be incorporated in the Bird Street design.

PROJECT COSTS AND FUNDING OPPORTUNITIES

Anticipated project costs range from \$1,610,000 to \$1,980,000. A summary and breakdown of these costs is provided in Appendix G.

Project Funding

- City staff review and update of design guidelines for Bird Street.
- Private funding through a new Local Improvement District (LID)

- Main Street Tax Credit Program: If Carnation develops a non-profit Main Street organization, businesses donate to it and receive tax credit worth 75% of the contribution. Other Main Street Trust Fund opportunities may be available even without an eligible downtown organization
- Livability Solutions/EPA Building Blocks Program (technical assistance, workshops)
- Our Town Initiative (creative placemaking).
- Community Facility Grants (construct or improve community facilities)
- Washington Tourism Alliance
- Transportation Alternatives Program (if done in conjunction with Tolt Ave Greenway and/or loop paths)
- Community Transformation Grants
- Build America Bonds (if considered transportation infrastructure)
- TIB Small City's Programs
- Department of Ecology Fiscal Year Stormwater Grant Program (for design and construction of stormwater projects).
- WSDOT Pedestrian and Bicycle Safety Programs (especially if loop paths align on Bird Street)



Bird Street Wayfinding Diagram (1 of 1)

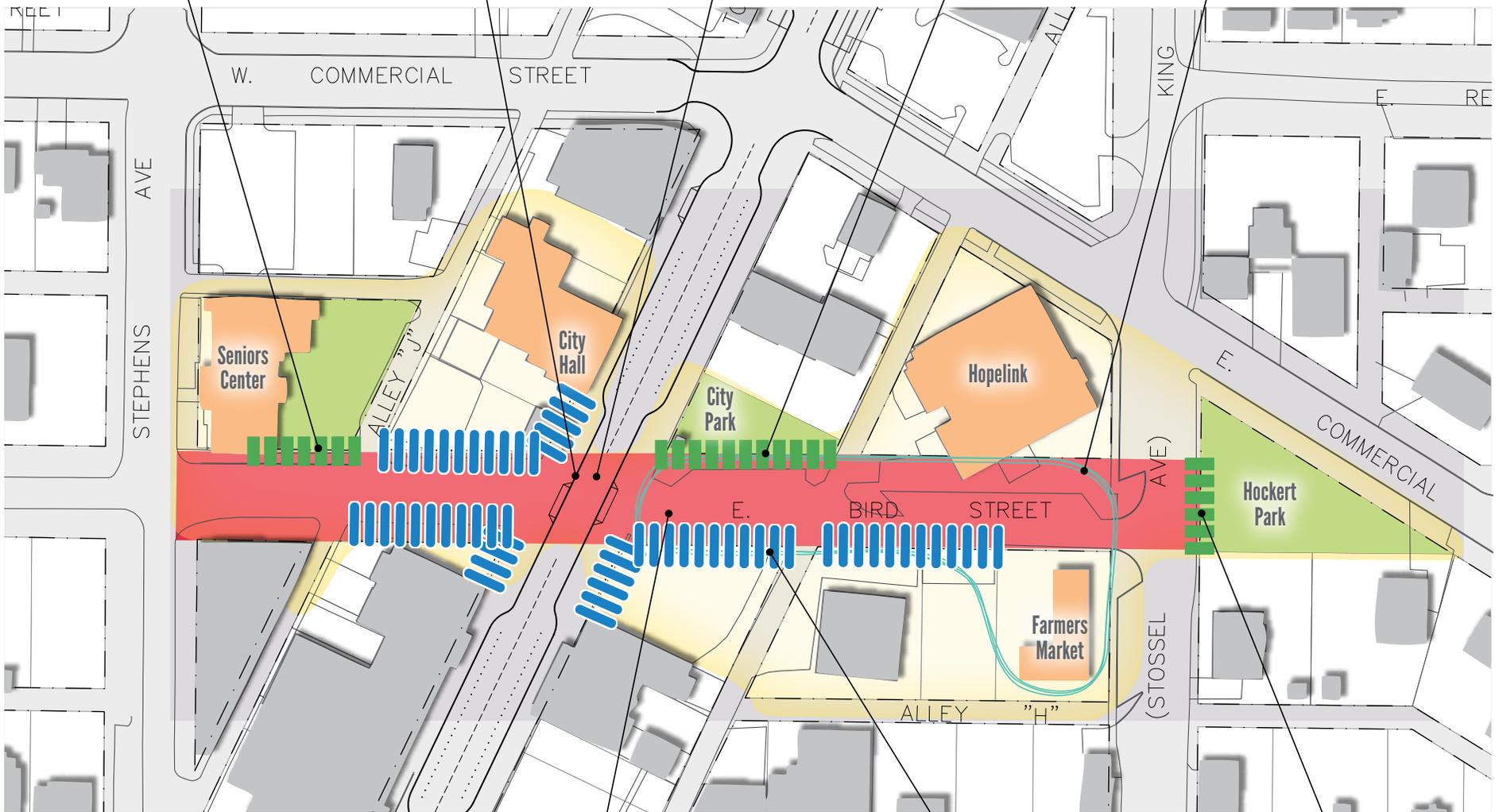
Design to enhance interaction between seniors and Bird Street activity.

Continue Tolt Ave sidewalks through intersection, notifying motorists that pedestrians have priority.

Continue special paving through intersection.

Maximize use of City Park.

Build on the Farmers Market and City Park to accommodate community events. Parking should easily convert to another purpose.



Community "heart"

Bird Street

Civic anchors

Parks and open space

Design Bird Street as a "people street" that prioritizes pedestrians and focuses Carnation's "heart." Unify Bird Street with paving, lights, planting, etc.

Accommodate a variety of functions at different times, including:

- pedestrian movement
- public gathering
- resting places
- parking.

New development should:

- Be civic or activate the street
- Offer pedestrian amenities
- Orient entrances and windows to the street.

Provide an inviting gateway to Hockert Park and redesign to accommodate complementary activities, especially children's play.

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NORTH GREENWAY [FIRST TIER PROJECT]



DESCRIPTION

This component consists of constructing the Greenway between Commercial Street and NE 55th Street. In the context of this project the Greenway includes all improvements east of the existing travel lanes, including a new curb and gutter, planting strip, and pathway. Associated storm drainage improvements, partial power undergrounding, planting and site furnishings are also recommended as a part of this project component.

BACKGROUND

The North Greenway expands the Tolt Avenue Greenway that was established with the South Greenway project and provides improved pedestrian and bicycle access between downtown Carnation and the Carnation Elementary School and residential areas north of NE 55th

Street. The Greenway is buffered from the roadway by a traffic curb and minimum 4.5-foot planting strip to provide a safe place for walking and biking. Existing parking along the cemetery is formalized and located along the new traffic curb

The concept plan shows locations of vegetation and trees. Bollard lighting, beginning at the Carnation Elementary School and continuing south to Commercial Street, is also shown in the planting strip to emphasize the Greenway and strengthen connections between the school and downtown.

As Greenway users approach the Central Business District (CBD) from the north several design techniques are proposed to facilitate the transition from a shared-use path to a wide urban sidewalk. These techniques are proposed to slow bicyclists and alert users to the end of the North Greenway (the Tolt Avenue Greenway continues

North Greenway

south of the commercial core). The design techniques include:

- A transition from an asphalt path to a concrete path at Morrison St indicates to users they are entering a more urban environment.
- A four-foot space between the Greenway and library and adjacent businesses in the Central Business District is differentiated with pavement scoring to alert users of this entry/exit space at buildings and allow businesses a space to put signs and flower pots outside of the shared-use path.
- Approaching Commercial Street a sign tells users: “Greenway Ends, Dismount Bicycles”.
- Bicycle racks are located along the Greenway to provide a place to lock bikes and help to narrow the sidewalk to calm Greenway/sidewalk users.
- The planting strip separating the shared-use path from the roadway is expanded, narrowing the Greenway to calm Greenway and sidewalk users.
- Scoring in the concrete path changes at the expanded planting strip near Commercial Street indicating the Greenway has ended and users have entered the downtown sidewalk.
- On the south side of Commercial Street covered bike parking provides a place to park bikes during wet weather and a kiosk provides wayfinding information.

The North Greenway is separated from other streetscape improvements to facilitate project implementation due to anticipated project costs when compared to full

corridor improvements. The project is the first step of street improvements along the Harvold properties that will create a welcoming and authentic entry for visitors entering Carnation from the north.

Designing the Greenway as a Shared-Use Path

The Greenway is intended to provide a safe, low speed corridor for pedestrians and bicyclists along Tolt Avenue and fast, road cyclists are encouraged to continue to share the road with motorized vehicles. A shared-use path is a transportation facility that supports off-street bicycling and walking. AASHTO’s Guide for Development of Bicycle Facilities, 4th Edition 2012 (AASHTO) provides design guidelines for shared-use paths. Shared-use paths have a minimum 10-foot paved width and a two-foot graded area. The Greenway is designed with a 10-foot width. The Greenway also provides a graded area in the level planting strip along the west side of the path; this graded area should be clear of vertical obstructions such as bollard lighting, utility poles, and signage. On the east side of the Greenway the outside two feet of pavement are intended to function as the graded area.

Where shared-use paths are located adjacent to the roadway AASHTO refers to these facilities as “sidepaths.” Sidepaths can be used where high-volume motor vehicle traffic discourages many bicyclists from riding in the roadway. There are high traffic volumes and truck numbers on Tolt Avenue – see Transportation and Parking Technical Memorandums in Appendix B). When a sidepath provides travel in both directions a five-foot separation is recommended from the roadway; the Greenway provides

a five-foot separation from the edge of the path pavement to the face of curb.

AASHTO also discusses design considerations for two way sidepaths that cross streets and driveways. The Greenway location (east vs. west) was reviewed in the context of existing street intersections and driveways. A map showing this analysis is provided in Appendix H, which identifies potential conflicts and benefits to siting the Greenway along each side of the roadway.

The future design of the Greenway should consider design guidance offered by AASHTO updates, the National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide and the upcoming NACTO Urban Street Design Guidelines.

OBJECTIVE

Response to Project’s Guiding Principles:

- **Safe:** the shared-use path provides a dedicated and buffered facility for pedestrians and bicyclists.
- **Welcoming:** the Greenway improves non-motorized access to and from downtown Carnation and the planted buffer improves the streetscape aesthetic and is the first phase of street improvements that will create a welcoming entry for people entering Carnation from the north.
- **Authentic:** the Greenway enhances opportunities for recreation (biking and walking) along Tolt Avenue and

connects existing and proposed pathways off Tolt Avenue.

- **Place-making:** the Greenway creates a unique facility that connects the corridor and provides access to Carnation’s many destinations.
- **Cohesive:** the Greenway is continuous through Carnation from the Tolt River Bridge to NE 55th Street except in downtown Carnation.

PREREQUISITES AND SEQUENCING

This is a Second Tier project and the South Greenway, which improves the connection between Tolt-McDonald Park, the Tolt River and other areas of interest south of the CBD, should be constructed prior to this project.

Power undergrounding and storm drainage infrastructure are included in this component to minimize future construction disturbances. Power undergrounding extends for two blocks between Commercial Street and Morrison Street and includes each intersection. Coordinating the horizontal and vertical layout of below ground vaults and handholds with Greenway improvements is important to ensure the design is consistent with the goals and needs of the Greenway. Storm drainage infrastructure will be required to collect and convey runoff from the existing roadway.

AGENCY AND STAKEHOLDER COORDINATION

WSDOT

An adjustment to existing travel lanes along Tolt Avenue is required to construct the proposed curb, planting strip and Greenway and will need to be reviewed by WSDOT. Based on City-provided GIS/survey information the existing road has width, with restriping, to accommodate two 11-foot travel lanes (the minimum allowed by WSDOT) and on-street parking adjacent to the cemetery until the North Entry is constructed to complete the roadway. It is anticipated the lane configuration will require the relocation of the existing extruded curb on the west side of Tolt Ave between Morrison Street and NE 55th Street (see Part VI for further discussion).

PSE

Existing utility poles between NE 55th Street and Morrison Street will need to be relocated out of the Greenway alignment and into the proposed planting strip.

The power undergrounding design between Morrison Street and Commercial Street will be completed by PSE. Coordination with PSE should start at project kick-off to ensure PSE understands project goals and the importance of horizontal layout.

Century Link

Relocation of existing utility poles and overhead distribution shall be confirmed and coordinated with Century Link.

Cemetery (City of Carnation)

Improvements along the Cemetery property should be coordinated with the City for potential impacts to the existing cemetery. Based on City-provided GIS/survey information the existing cemetery fence may be located six feet into the public right-of-way (see Part VI for further discussion).

CONSIDERATIONS FOR EXISTING CONDITIONS

The existing cemetery perimeter fence may be located in the public right-of-way and conflict with the construction of the Greenway. Site observations indicate the fence's entry gate is approximately eight to 12 feet behind the perimeter fence, which fronts the cemetery; this gate location would allow the gate to remain and only require replacement of the front perimeter fence. An existing 60-plus-foot evergreen tree is located just south of the cemetery gate; at this location the typical Greenway alignment should be reviewed for impacts to the existing tree.

Channelization on Tolt Avenue between Entwistle Street and NE 55th Street should be reviewed to determine impacts to existing lane striping and whether additional improvements may be needed beyond the limits of the Greenway. Below are two areas that have been identified as requiring additional improvements as a part of the concept plan:

1. To accommodate a shift in existing travel lanes, and maintain two 11-foot travel lanes (to construct the Greenway, planting strip and on-street parking at the cemetery) the existing extruded curb will be removed and a new extruded curb installed within the existing pedestrian pathway. This existing pathway along the west roadway shoulder between Morrison Street and NE 55th Street will be removed. The completed North Greenway will replace the existing path, maintaining a pedestrian connection between the downtown Carnation and residences north of NE 55th Street.
2. Within the CBD (Commercial Street to Rutherford Street) the City-provided GIS/survey information indicates two 11-foot travel lanes and an eight-foot parking lane (east side) can be maintained after construction of the Greenway and new curb and gutter. However, it is anticipated the street's centerline at Commercial Street will shift approximately three feet to the east. During final design this lane shift will need to be reviewed and coordinated with approaching lane widths and alignments. It is anticipated that a temporary curb bulb or similar facility may be needed on the south side of Commercial Street to align travel lanes through the intersection.

Detailed engineering studies will be required at intersections to show that curb bulbs and other pedestrian improvements do not impact turning movements to and from Tolt Avenue.

WAYFINDING AND WAYFINDING UPDATES

Sequential signs, such as Burmashave-style signs, should be placed on the east side of Tolt Avenue between 55th Street and Bagwell Street to slow and welcome motorists to Carnation. The back sides of these signs may be visible to departing visitors and thematically fare them well (these signs will eventually be relocated to the west side of Tolt Avenue as a part of the North Entry project – this location improves views of signage to people entering Carnation from the north).

An information kiosk should be placed in the proposed new park or another location along Tolt Avenue where it is visible from the Greenway and as close as possible to the Tolt Avenue crossing at Morrison Street. This will help orient people coming from the north. If desired, the kiosk may be placed instead at 55th Street where the Red and Purple lines turn away from Tolt Avenue.

North Greenway

PROJECT COSTS AND FUNDING OPPORTUNITIES

Anticipated projects costs range from \$2,800,000 to \$3,440,000. A summary and breakdown of these costs is provided in Appendix G.

Project Funding

- State Transportation Alternative Program (TAP) Funds from MAP-21 (includes previous Federal Transportation Enhancements, Safe Routes to School and Recreational Trails program funding)
- WSDOT Pedestrian and Bicycle Safety Programs
- Transportation Improvement Board Small City's Programs
- PSE – 60/40 match for undergrounding
- Puget Sound Regional Council Rural Town Centers and Corridors Funding
- Bikes Belong Grant Program
- Department of Ecology Fiscal Year Stormwater Grant Program
 - <http://www.ecy.wa.gov/programs/wq/funding/funding.html>



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North Greenway Plan (1 of 3)



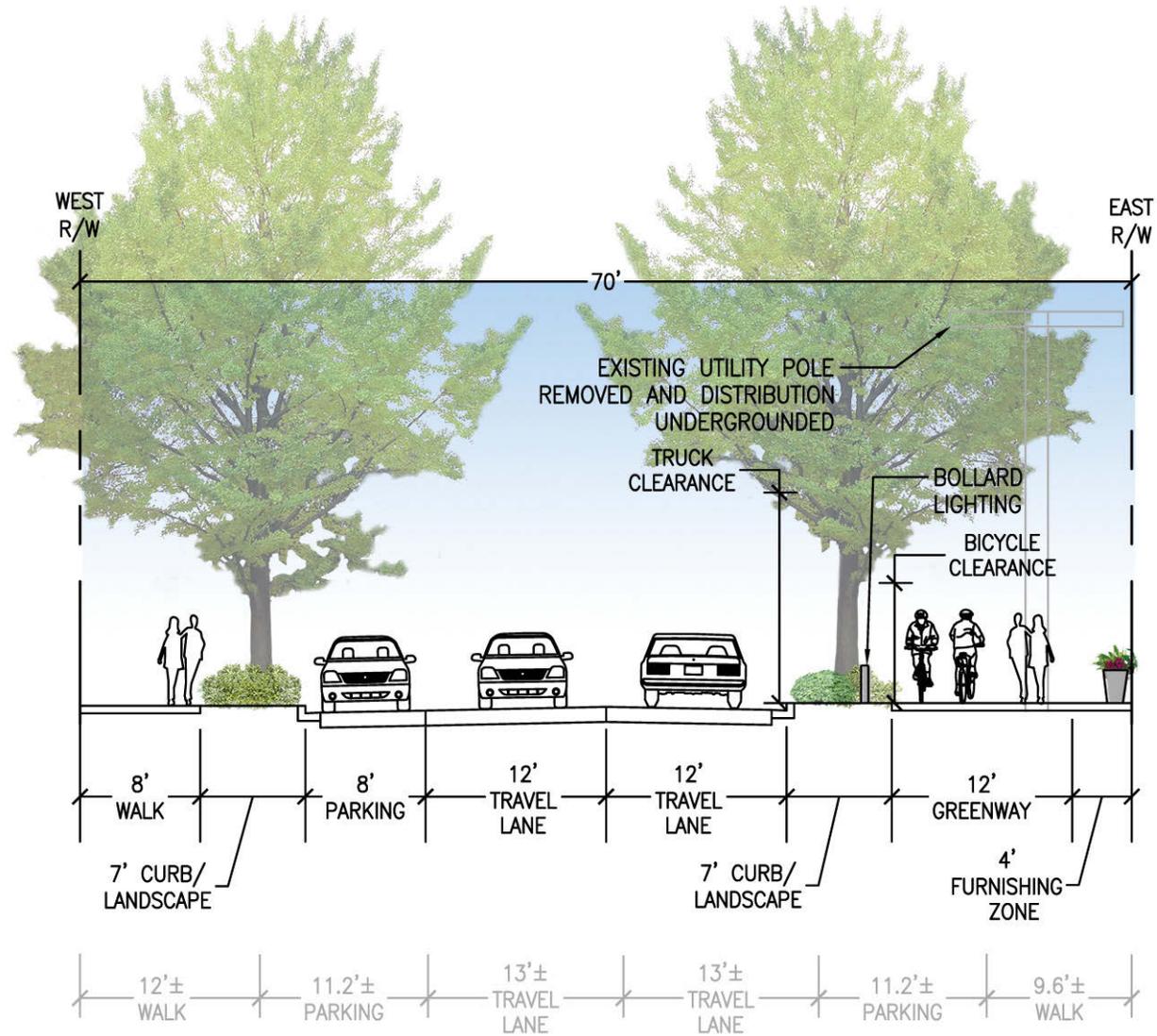


North Greenway Plan (3 of 3)



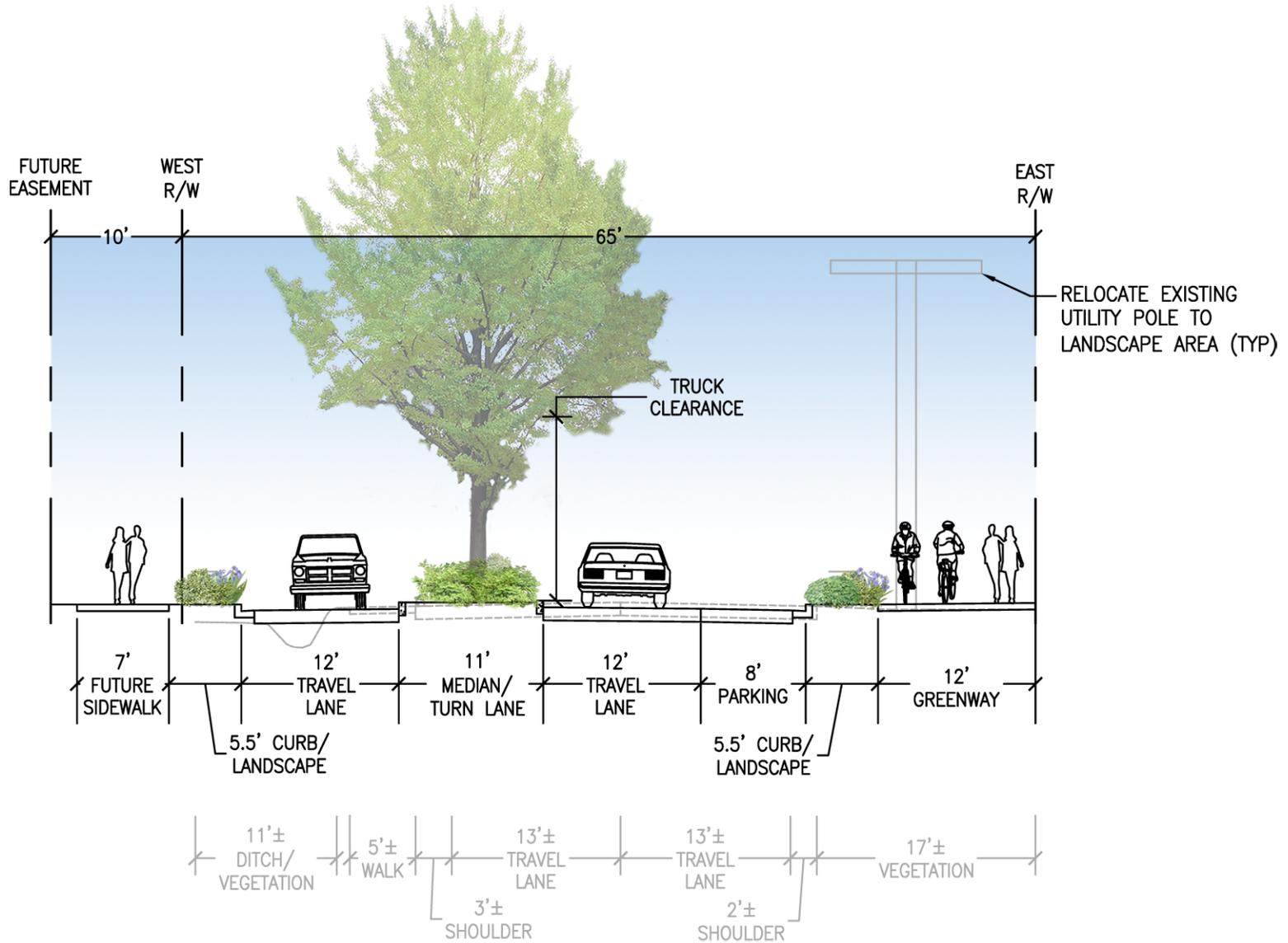
North Greenway Section (1 of 3)

Tolt Avenue Section 9 – Commercial Street to Rutherford Street



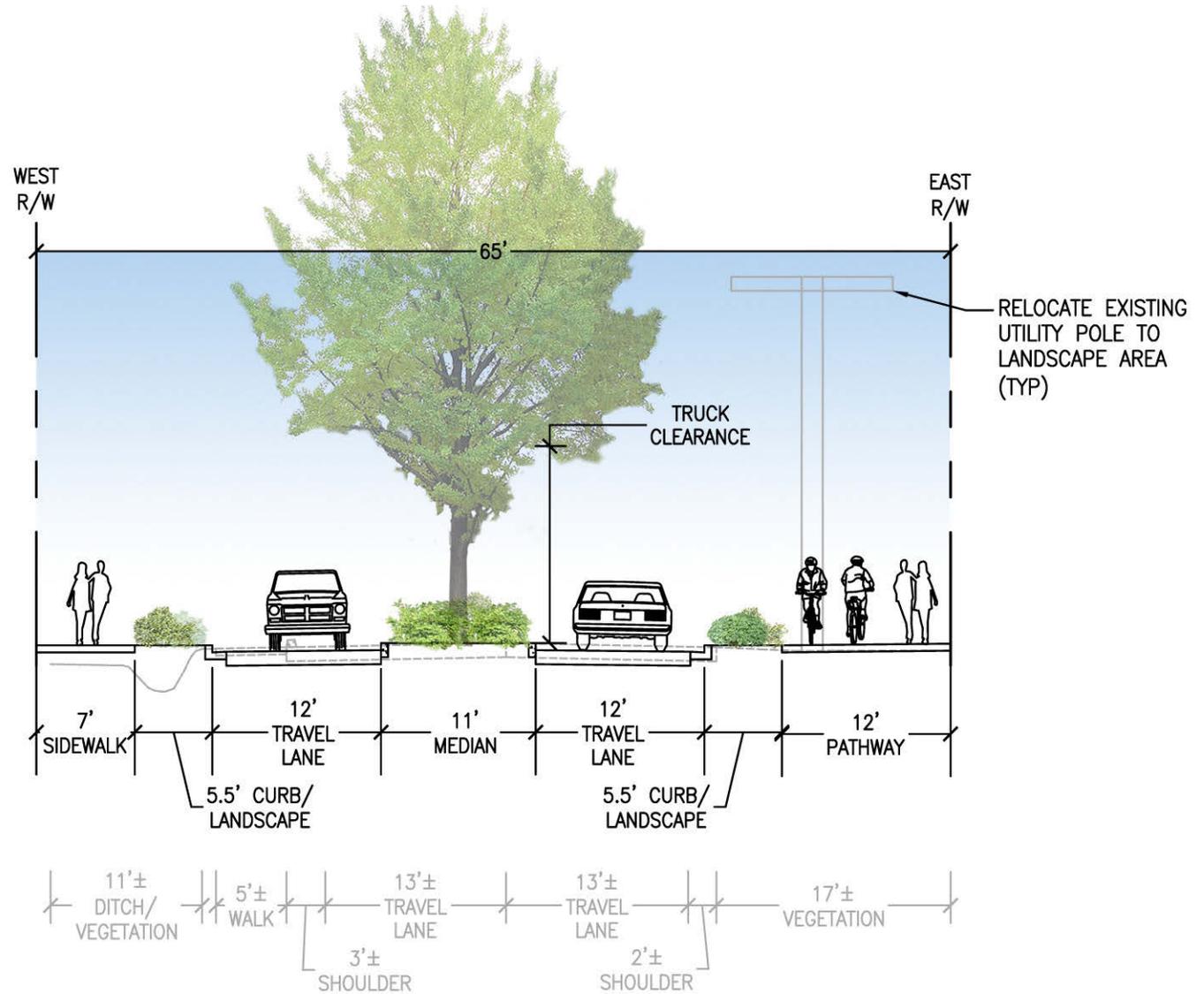
North Greenway Section (2 of 3)

Tolt Avenue Section 10 – At Cemetery



North Greenway Section (3 of 3)

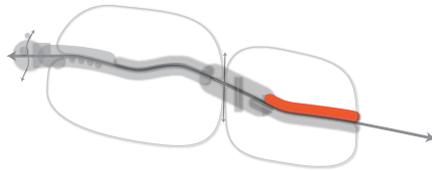
Tolt Avenue Section 11 – North of Cemetery



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NORTH ENTRY [SECOND TIER PROJECT]



DESCRIPTION

This project retrofits the east side of Tolt Avenue from Rutherford Street to NE 55th Street with a new curb, sidewalk and planting strip. A central, landscaped median is also retrofitted into the existing road adjacent to the Harvold properties; at some locations the existing roadway will be widened to accommodate the median. In addition to hardscape improvements the project will include storm drainage infrastructure, street trees and planting, and site furnishings. Hardscape improvements on the east side of Tolt Avenue, installed for the North Greenway, will remain.

An easement along the west side of Tolt Avenue is needed adjacent to the Harvold property to provide pedestrian access along Tolt Avenue.

BACKGROUND

The North Entry street improvements create an identity for people entering Carnation from the north. Improvements signal to people they have left the rural highway and entered an urban area. The existing, unimproved rural road is replaced with a tree-lined, median providing a transition into the Central Business District (CBD). Street improvements also support the existing and future uses of the Harvold properties and cemetery; existing driveways are maintained and on-street parking adjacent to the cemetery is formalized. The central median, narrowed traffic lanes, and on-street parking also provide traffic calming to slow vehicles as they approach the CBD.

Pedestrian improvements along the west side of the street improve the existing at-grade connection between residences north of 55th Street and local schools and the CBD that was removed to construct the North Greenway.

North Entry

A continuous planting strip provides a buffer between the new sidewalk and street. To accommodate on-street parking, travel lanes and a central median, an easement and building setback is required at the Harvold property along the west side of Tolt Avenue. This easement should be a developer requirement for future use of the Harvold property.

OBJECTIVE

Response to Project's Guiding Principles:

- **Safe:** Traffic calming slows vehicles and a separated and buffered sidewalk adds a pedestrian route on the west side of Tolt Avenue.
- **Welcoming:** A tree lined median creates an inviting corridor for people approaching Carnation from the north.
- **Authentic:** Landscape and tree selection will be consistent with native vegetation and the context of the valley.
- **Place-making:** The median creates a sense of identity for north approach

PREREQUISITES AND SEQUENCING

North entry street improvements are a Second Tier project and should take place as a part of future development of the Harvold property. While street improvements provide a transition into downtown Carnation they will ultimately

support and connect the future development of the Harvold property with the rest of Carnation to the south. The previously constructed Greenway provides improved access between the residential neighborhood north of NE 55th Street and downtown Carnation.

AGENCY AND STAKEHOLDER COORDINATION

Harvold Property Owners

The concept plan requires an easement along portions of the west side of Tolt Avenue to accommodate a sidewalk and planting strip. The sidewalk provides a pedestrian connection between the CBD and future development of the Harvold property on the west side of Tolt Avenue. The easement should be a requirement of development of the property.

WSDOT

The design of the median and roadway channelization will require WSDOT review. Preliminary feedback from WSDOT indicates that proposed 12-foot travel lanes and eight-foot parking lanes are adequate to meet traffic operations. This review also identified that a vehicular guardrail is required between the travel lanes and street trees planted in the central median. Detailed engineering studies will be required at intersections to show that curb bulbs and other pedestrian improvements do not impact turning movements to and from Tolt Avenue.

CONSIDERATIONS FOR EXISTING CONDITIONS

It is anticipated the existing roadway prism will be widened along a portion of the Harvold property to accommodate the roadway median and on-street parking at the cemetery. The earthwork operations for the road widening will extend into the existing drainage ditch at the backside of the existing pedestrian fence along the Harvold property. Where the existing roadway is expanded stormwater mitigation may be required. Increasing the planting strip to ten feet wide (between the roadway and sidewalk) will provide an opportunity to integrate green stormwater infrastructure (GSI) and treat stormwater runoff on-site. This facility may also support stormwater requirements for future private development.

Both curb bulbs on the west side of Tolt Avenue between Rutherford Street and Morrison Street provide opportunities to integrate GSI into the landscape and mitigate stormwater runoff from the existing road. GSI and stormwater infiltration facilities should be coordinated with existing below ground utilities.

WAYFINDING AND WAYFINDING UPDATES

The northern gateway to Carnation should be placed at the City boundary north of the curve in Tolt Avenue so that it is visible on the approach into town. It should build on Carnation's look and feel to welcome visitors into town. Because the City boundary may move northward, in the near-term, this sign or monument should be temporary or easily movable.

An information kiosk should be placed at 55th Street where the Red and Purple loop paths turn away from Tolt Avenue.

Previously installed Burmashave-style signs should be relocated from the east side of Tolt Avenue to the west side of Tolt Avenue to welcome motorists entering Carnation. Banner signs may also be placed in this area to add vertical elements that help to slow drivers, announce events, and create a sense of entry.

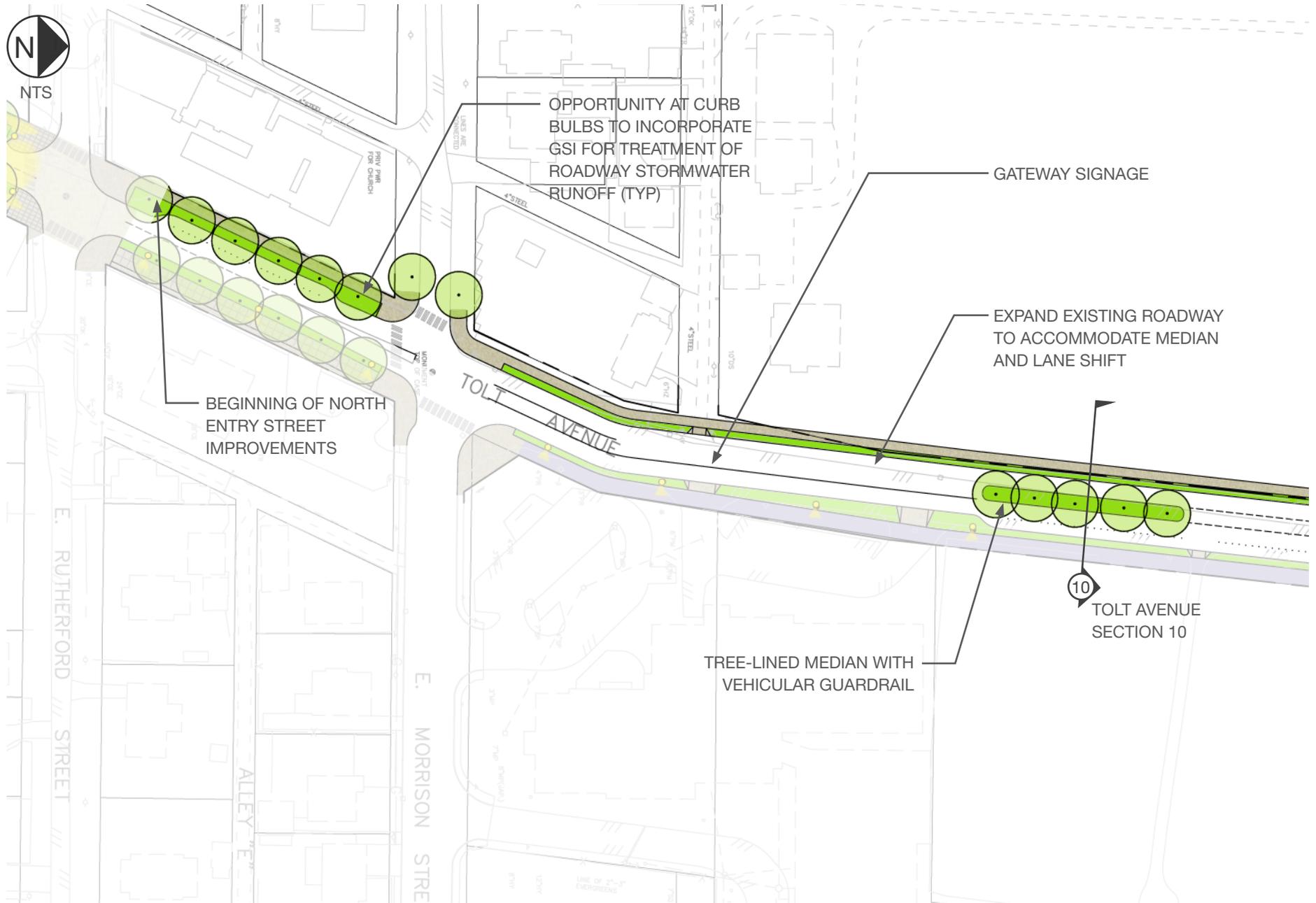
PROJECT COSTS AND FUNDING OPPORTUNITIES

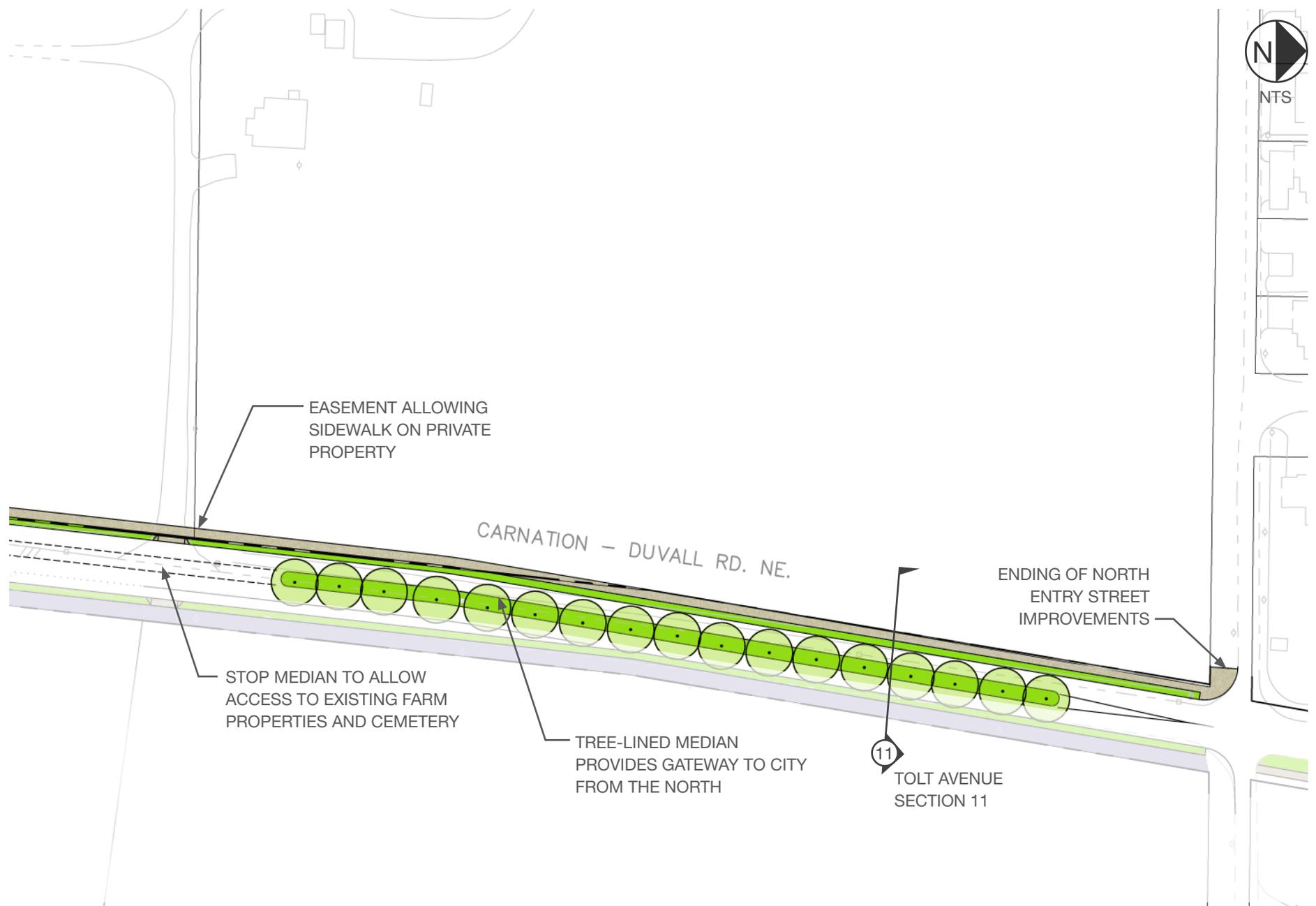
Anticipated projects costs range from \$2,330,000 to \$2,860,000. A summary and breakdown of these costs is provided in Appendix G.

Project Funding

- Private developer funds related to Harvold property redevelopment
- State Transportation Alternative Program (TAP) Funds from MAP-21 (includes previous Federal Transportation Enhancements and Safe Routes to School program funding)
- Transportation Improvement Board Small City's Programs
- PSRC Rural Town Centers and Corridors Funding
- Dept of Ecology Fiscal Year Stormwater Grant Program

North Entry Plan (1 of 2)





EASEMENT ALLOWING SIDEWALK ON PRIVATE PROPERTY

CARNATION - DUVALL RD. NE.

STOP MEDIAN TO ALLOW ACCESS TO EXISTING FARM PROPERTIES AND CEMETERY

TREE-LINED MEDIAN PROVIDES GATEWAY TO CITY FROM THE NORTH

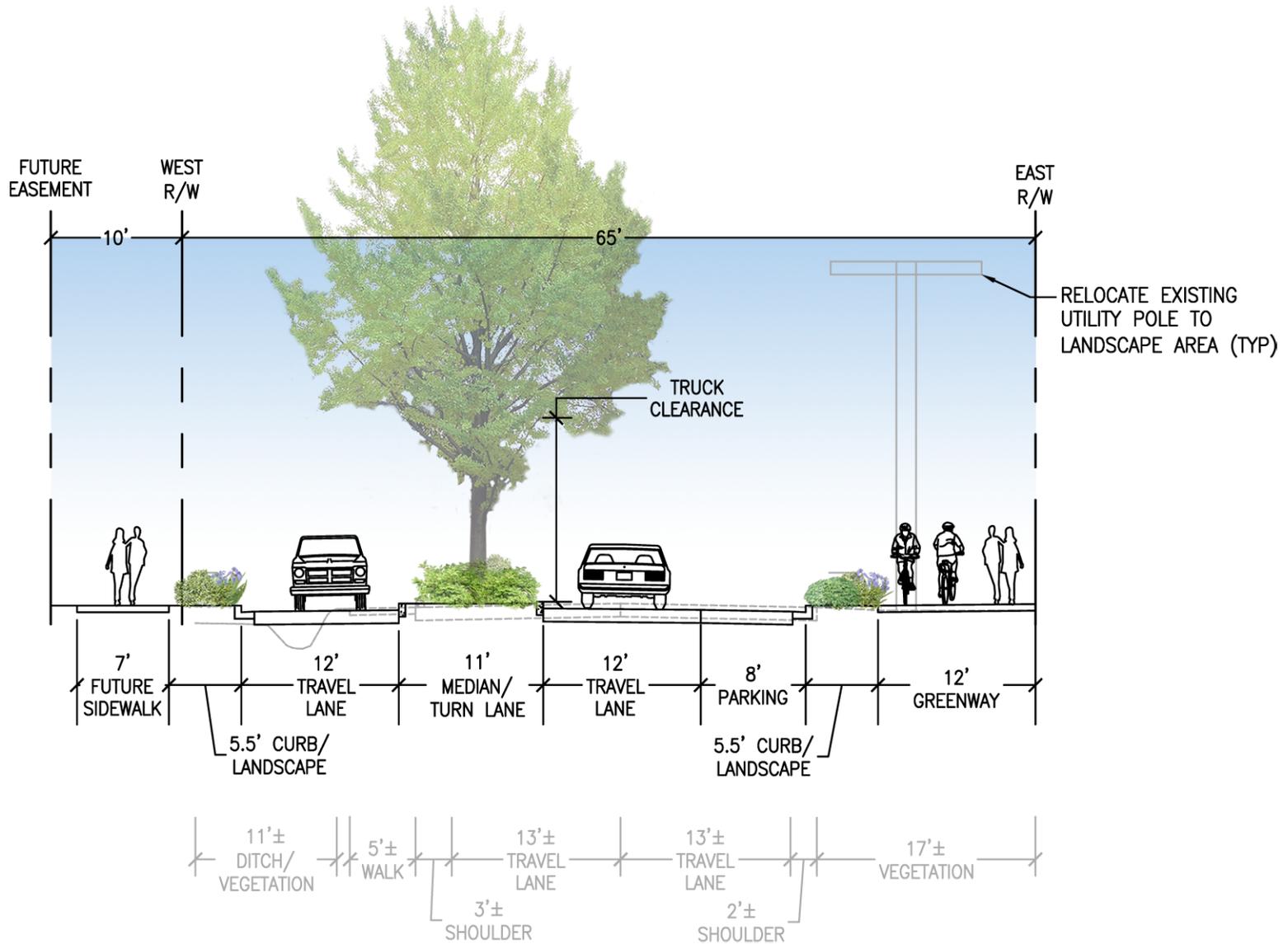
11 TOLT AVENUE SECTION 11

ENDING OF NORTH ENTRY STREET IMPROVEMENTS



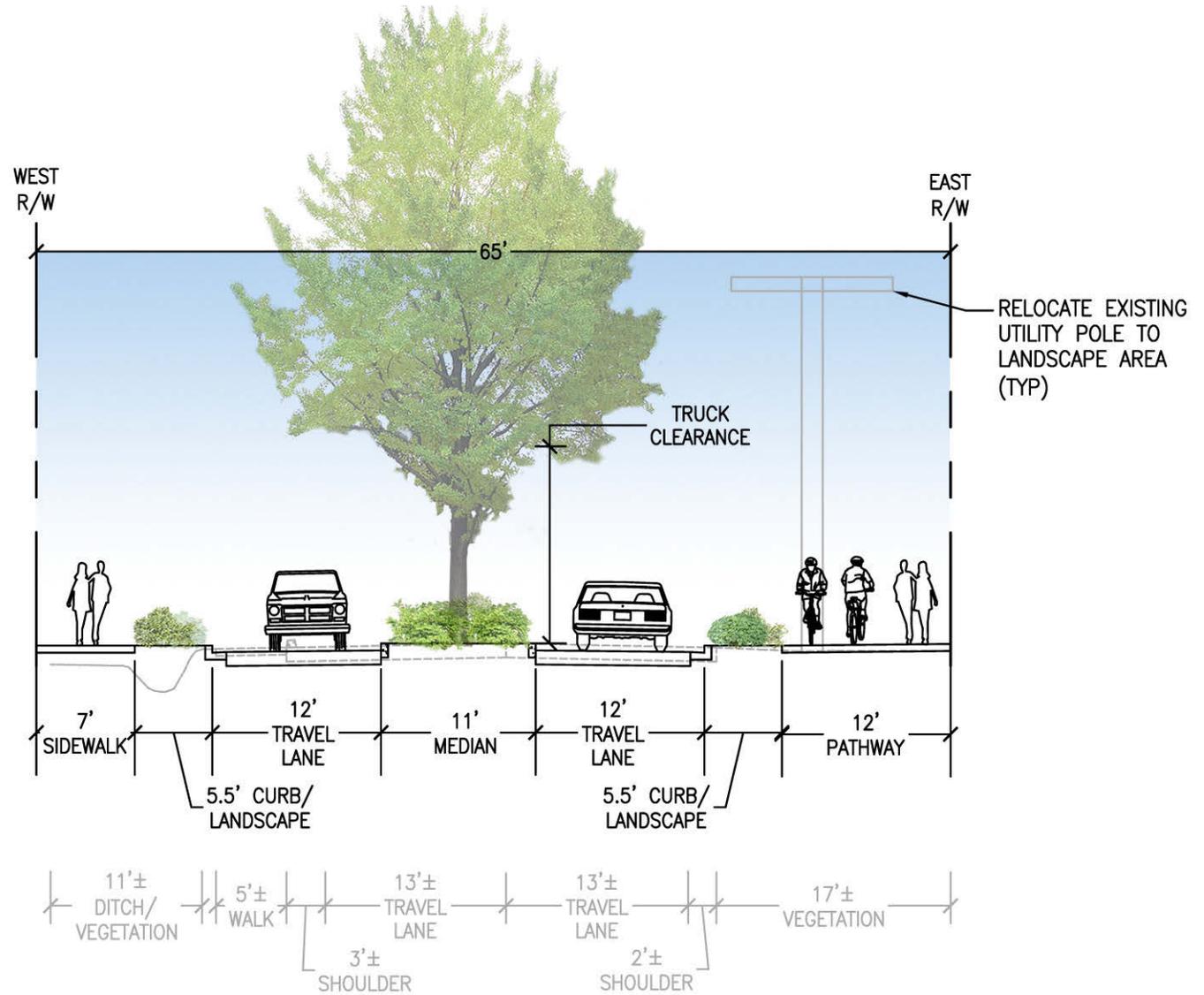
North Entry Section (1 of 2)

Tolt Avenue Section 10 - At Cemetery



North Entry Section (2 of 2)

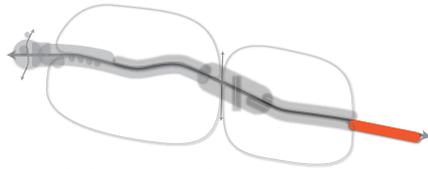
Tolt Avenue Section 11 - North of Cemetery



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WALKWAY 55TH TO 60TH [SECOND TIER PROJECT]



DESCRIPTION

This project provides a pedestrian walkway along the east side of Tolt Avenue between NE 55th Street and NE 60th Street.

BACKGROUND

Tolt Avenue does not have a pedestrian route between NE 55th Street and NE 60th Street. Wide travel lanes and narrow, roadway shoulders result in high travel speeds and few pedestrian trips between adjacent residential areas and downtown Carnation along this portion of Tolt Avenue. A new pedestrian walkway will connect the adjacent residential areas with the North Greenway.

The recommended walkway is an at-grade facility separated from the roadway by a landscape buffer. An at-grade facility is recommended because the project is

outside the current city limits and expected usage of the walkway is low.

Opportunities to integrate green stormwater infrastructure (GSI) should be explored to provide mitigation for stormwater runoff from the existing roadway that is not currently collected, conveyed or treated.

OBJECTIVE

Response to Project's Guiding Principles:

- **Safe:** the project's primary purpose is to provide a safe pedestrian route along Tolt Avenue that is separated from the roadway.
- **Maintainable:** materials and alignment of the walkway should be selected to minimize long-term maintenance associated with a new walkway.

Walkway 55th to 60th

PREREQUISITES AND SEQUENCING

This is low priority project and should be completed after other street improvements have been completed. The priority does increase with the future private development of the Harvold properties and adjacent street improvements documented in the North Entry project.

AGENCY AND STAKEHOLDER COORDINATION

WSDOT

Pathway alignment and landscape restoration with WSDOT.

Property Owners Adjacent to Proposed Improvements

Public outreach should be conducted during final design to inform adjacent land owners of the proposed improvements and potential impacts to existing landscaping and site elements privately maintained or located in the public right-of-way.

PSE

Relocation of existing utility poles should be coordinated with PSE.

CONSIDERATIONS FOR EXISTING CONDITIONS

Based on site observations and City-provided GIS/survey information there are existing trees and privately maintained fences and landscaping that extend into the public right-of-way that may be impacted by construction. Walkway retrofits are not proposed outside of the right-of-way but existing site features that encroach into the right-of-way may be impacted depending on their specific location. During final design the walkway alignment should be coordinated with existing conditions to minimize impacts to existing site features.

Where possible the walkway should minimize conflicts with existing utility poles. Varying the walkway alignment to eliminate conflicts with existing utility poles is recommended to minimize project costs. This may also improve opportunities to integrate GSI into the proposed improvements.

Consideration for permeable materials, such as gravel surfacing or wood chips, should be considered to minimize the construction footprint and reduce the project's impact on the environment.

PROJECT COSTS AND FUNDING OPPORTUNITIES

Anticipated projects costs range from \$230,000 to \$290,000. A summary and breakdown of these costs is provided in Appendix G.

Project Funding

- Washington Department of Transportation
- State Transportation Alternative Program (TAP) Funds from MAP-21
 - <http://www.fhwa.dot.gov/map21/guidance/guidetap.cfm>
- Transportation Improvement Board's Small Cities Programs
- Safe Routes to School



PEDESTRIAN PATH AND
LANDSCAPE RESTORATION.
COORDINATE IMPROVEMENTS
WITH EXISTING UTILITY
POLES (TYP)

12
TOLT AVENUE
SECTION 12

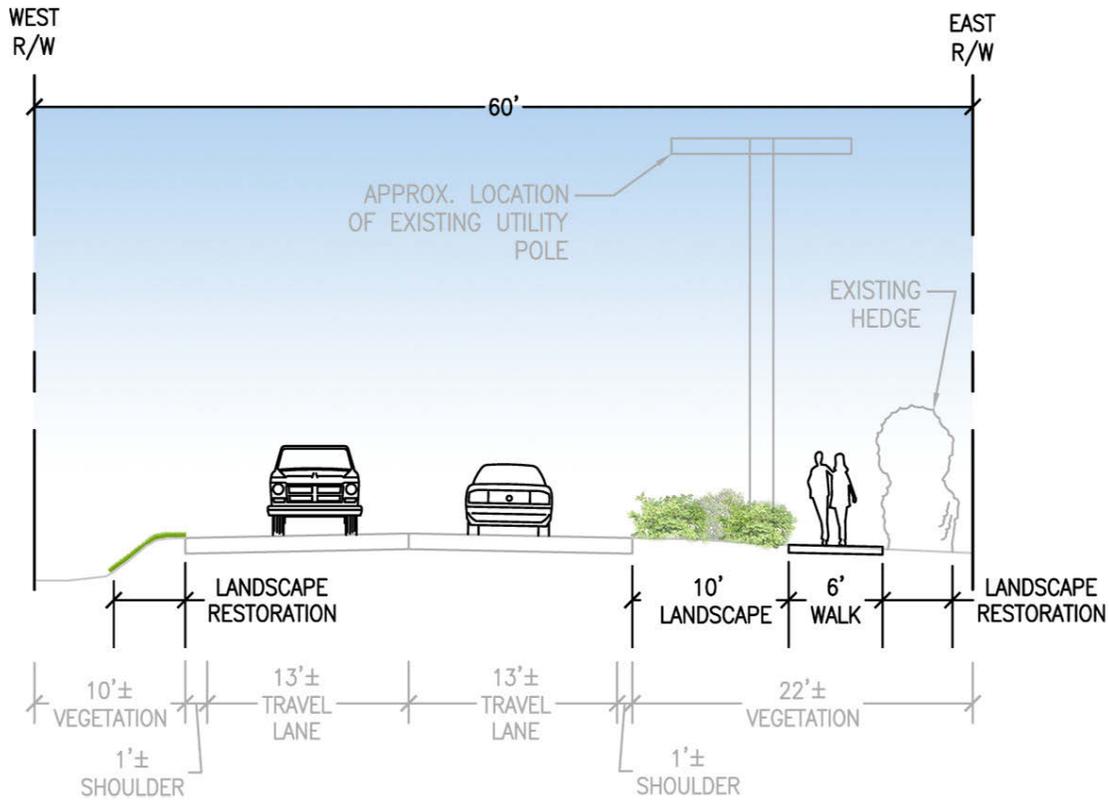
PEDESTRIAN PATH
AND LANDSCAPE
RESTORATION. COORDINATE
IMPROVEMENTS WITH
EXISTING UTILITY POLES





Walkway 55th to 60th Section (1 of 1)

Tolt Avenue Section 12 – NE 55th street to NE 60th Street



WAYFINDING DESIGN [FIRST TIER PROJECT]



DESCRIPTION

This project involves designing the wayfinding elements described in the wayfinding concept and many project pages. The wayfinding elements include directional signs for pedestrians and motorists, en-route markers (e.g., small directional signs, paving inlays, and lighting), information kiosks, gateways (e.g., Carnation bridge and welcome sign), sequential signs (e.g., Burmashave-style signs and overhead banners), and special paving at Bird Street. See the Wayfinding documentation in the “Concept” section of the Action Plan for a description of these devices.

BACKGROUND

The wayfinding elements create a unified system that helps people know where they are, where they want to go, and how to get there. It serves the dual purpose of

reinforcing Carnation’s unique identity through materials, color, and design, as well as by calling out Carnation’s assets. Routes and destinations should be made obvious and simple to find through the wayfinding system. The system should highlight the following routes:

- The Tolt Avenue Greenway,
- The Blue, Orange, Purple, and Red Loop Paths,
- The Entwistle Greenway Loop, and
- The Snoqualmie Valley Trail.

Some destinations that should be included in the wayfinding system, particularly on kiosk maps, are:

- The Carnation Tree Farm
- Valley Memorial Park
- The Tolt River
- Tolt-MacDonald Park (including the Camper Circle)

Wayfinding Design

- The Snoqualmie River
- The suspension bridge across the Snoqualmie River
- The grocery store
- Downtown businesses
- The Sno-Valley Senior Center
- Harvold Berry Farm
- The Carnation Cemetery
- The Carnation Library
- The Farmers Market
- Hockert Park
- The City Hall
- Loutsis Park
- Remlinger Farms
- The Trestle Bridge
- The Carnation Bridge
- The Post Office

In designing the wayfinding elements, legibility should be paramount.

Character size. Auto-oriented signs' lettering should be at least nine inches tall. For bicycles, it should be at least seven inches tall. Pedestrian-oriented signs should have characters no shorter than four inches.

Color. Colors, especially with the colored loop paths and Tolt Avenue Greenway, should be prominent and clearly symbolize the routes.

Contrast. The background should be darker than the characters, and there should be at least a 70% contrast.

Glare. Signs should be made of non-reflective material.

Location. Although this plan suggests wayfinding locations, final locations should be chosen based on being at a decision point (“go straight or turn?”), traffic volumes, and lines of sight.

Uniformity. Use signs that portray a consistent theme (color, size, font, and shape) so that people know what to look for and can easily see when they are on the right track.

Lighting. A repetitive line of lighting can draw visitors along a route and make it feel warm and safe. Use this type of lighting on special routes as a navigational tool and to increase the sense of safety.

Size. The sizes depend on the type of sign (see the Wayfinding documentation in the “Concept” section of the Action Plan for a description of the types and purposes of a variety of wayfinding devices):

A typical auto-oriented sign should be around five to six feet wide by three to four feet high, installed such that the main sign is about five or six feet above grade. Parking signs may be much smaller when just using the “P” symbol.

Pedestrian-oriented signs may be as small as 36 inches square and may be placed between four and six feet above grade. Paving inlays may be significantly smaller, especially when using many in close proximity.

OBJECTIVE

Response to project's Guiding Principles:

- **Safe:** The wayfinding elements elevate people's awareness of walking and bicycling routes, making them safer for a range of people using them, including children, elderly, people with mobility impairments, and so on. By encouraging walking and bicycling, an "active living" culture becomes the norm, and motorists become accustomed to sharing the roads with non-motorized users.
- **Welcoming:** The wayfinding system makes it easier for visitors to explore Carnation. Upon entry to Carnation, the bridge and signs may literally welcome people to Carnation and create a positive first impression. Once in town, signs and kiosks announce destinations and show clear routes for getting to them. On certain paths, visitors are reassured by "en-route markers" that they are not lost, so that there is a sense of ease with getting around Carnation.
- **Authentic:** The graphic design of the signs reinforces Carnation's authentic identity, as well as the system as a whole bringing people to the destinations that make Carnation unique (e.g., rivers, farmland, downtown, etc).
- **Cohesive:** All wayfinding elements (with the exception of re-used materials, such as the entry bridge or banner signs using the old bridge pieces) should use materials and colors to create a unified look and feel. These should also be compatible with other landscape elements, such as street furniture, bicycle racks, and

paving materials, to cohesively reflect Carnation's identity.

- **Place-making:** By reinforcing Carnation's identity, the wayfinding elements help to create a stronger sense of place. Likewise, they lead people to valued places in Carnation, and especially to downtown, where public gathering happens on sidewalks and on the civic core at Bird Street. The Bird Street element itself is a wayfinding technique, using special paving, signature trees, lighting, and possibly other landmarks to set it apart as a special gathering place.

PREREQUISITES AND SEQUENCING

This is a First Tier project. The wayfinding devices design may be implemented initially as its own project, or it could be done in conjunction with whichever Tolt Avenue project happens first.

Final wayfinding locations depend on Bird Street and Hockert Park design (see the sequencing discussions on the Bird Street and Loop Paths project pages).

Tolt Avenue Greenway signs and/or markers, the Carnation bridge welcome sign, and downtown wayfinding elements should be prioritized.

As the Loop Paths alignment is determined, the en-route markers between the Snoqualmie Valley Trail and downtown should also be a high priority.

Wayfinding Design

Pedestrian-oriented directional signs outside of downtown on the Red Loop Path may be a lower priority given the simple nature of the route.

AGENCY AND STAKEHOLDER COORDINATION

King County Parks

Directional signs and kiosks are called for in Tolt MacDonald Park and along the Snoqualmie Valley Trail. King County Parks also helped Carnation create the informational “Carnation Welcomes You” map. The Loop Paths and Entwistle Loop Trail might be added to these maps for future printouts and to place on kiosks.

City of Carnation (Parks)

These improvements should be integrated with Loutsis, Valley Memorial, Hockert, and future parks (especially regarding the proposed park at Tolt Avenue and Bagwell Street).

WSDOT

Many signs are proposed for Tolt Avenue. Coordination with WSDOT is important to ensure compatibility with their needs for the corridor.

CONSIDERATIONS FOR EXISTING CONDITIONS

Carnation has existing wayfinding signs. Design of a new system might incorporate these pieces to reduce costs. Salvaged materials are also encouraged, such as the old bridge pieces stored at the Tree Farm.

WAYFINDING AND WAYFINDING UPDATES

Not applicable as this is a wayfinding project.

PROJECT COSTS AND FUNDING OPPORTUNITIES

Anticipated project costs range from \$70,000 to \$80,000 depending on the number of wayfinding elements, materials, and construction. A summary and breakdown of project costs is provided in Appendix G.

Project funding

- King County Parks (already helping with maps)
- Business/Local Improvement District: Businesses “tax” themselves to provide funds for improvements from which they benefit
- Small Cities Community Development Block Grant (CDBG)
- Main Street Tax Credit Program: If Carnation develops a non-profit Main Street organization, businesses

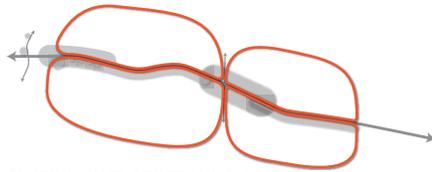
donate to it and receive tax credit worth 75% of the contribution. Other Main Street Trust Fund opportunities may be available even without an eligible downtown organization

- Washington Complete Streets and Main Street Highways
- State Transportation Alternative Program (TAP) Funds from MAP-21 (includes previous Safe Routes to School program funding)
- Transportation Improvement Board Small City's Programs
- WSDOT Pedestrian and Bicycle Program (for pedestrian/bicycle signs)
- Washington Tourism Alliance
- Washington Economic Development Finance Authority
- Washington State Department of Commerce

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WAYFINDING LOOP PATHS [FIRST TIER PROJECT]



DESCRIPTION

This project involves formalizing and marking four walking routes—colored “loop paths”— with pedestrian-oriented directional signage, some en-route markers, and some information kiosks.

BACKGROUND

The loop paths connect the downtown area with local destinations. See diagram after the text of this section detailing the following key elements:

- Pedestrian-oriented directional signs. Because the loop paths are primarily meant for walking, pedestrian-oriented directional signs mark turning points. These signs are color-coded to match the loop path name(s).

- En-route markers. Along Entwistle, en-route markers such as inlays and small signs emphasize this key connection between the Snoqualmie Valley Trail and downtown. These signs are color-coded to match the loop path name(s). En-route signs may also be used along long stretches between intersections. For example, the Tolt Avenue Greenway could have colored dots indicating the Loop Paths.
- Kiosk placement. Information kiosks are placed where the Orange and Blue Loops meet on Tolt Ave near the Tolt River, on the Orange Loop near the Snoqualmie River bridge in Tolt-MacDonald Park, on the Blue Loop at the Snoqualmie Valley Trail and Tolt River Trail junction, and where the Blue Loop and Purple Loop meet on the Snoqualmie Valley Trail.
- Kiosk maps. Identify the Loop Paths on all kiosk maps.

Wayfinding Loop Paths

OBJECTIVE

The purpose of this component is to establish walking paths that connect Carnation's destinations and are intuitive, safe, welcoming, easy to follow, and reinforce Carnation's character.

Response to project's Guiding Principles:

- **Safe:** The loop paths formalize safe routes for a range of users, such as children, elderly, people with mobility impairments, and so on. In addition, by encouraging walking and establishing a culture of walking, motorists become more aware of sharing roads with non-motorized users.
- **Welcoming:** Formalizing these routes with clear signs will help visitors explore Carnation in an easy and fun way.
- **Authentic:** The loop paths connect to the rivers, regional trails, farmland and other assets that make Carnation what it is. By noting these destinations and making it easier to get to them, the loop paths advertise and celebrate Carnation's authenticity. The graphic design of the signs also reflects Carnation's identity.
- **Cohesive:** As with the overall wayfinding strategy, signs and markers use a unified look and feel to reinforce Carnation's identity.
- **Place-making:** The loop paths all originate near the central heart of Carnation and will draw people toward the main gathering space on Bird Street.

PREREQUISITES AND SEQUENCING

This is a First Tier project.

- Signs, kiosks, and en-route markers may immediately be placed on the Loop Paths, especially on segments away from Tolt Avenue. Segments along Tolt Avenue should be coordinated with the Tolt Avenue Greenway and Tolt Avenue street improvements. See other project pages for more specific guidance.
- The Red Loop segment on Stewart Ave/316th Avenue NE between W Bagwell Street and NE 55th Street is not a public route. The City must work with the property owner to create an agreement or purchase land to formalize this route.

AGENCY AND STAKEHOLDER COORDINATION

King County Parks

Directional signs and kiosks are called for in Tolt MacDonald Park and along the Snoqualmie Valley Trail. King County Parks also helped Carnation create the informational "Carnation Welcomes You" map. The Loop Paths might be added to these maps for future printouts and to place on kiosks.

City of Carnation (Parks)

These improvements should be integrated with Loutsis, Valley Memorial, and future parks (especially the proposed future park location north of the current city limits).

CONSIDERATIONS FOR EXISTING CONDITIONS

See Prerequisites and Sequencing section above.

PROJECT COSTS AND FUNDING OPPORTUNITIES

Project Costs

Anticipated project costs range from \$81,000 to \$100,000. Costs for en-route markers may vary depending on coordination with downtown core en-route markers. A summary and breakdown of project costs is provided in Appendix G.

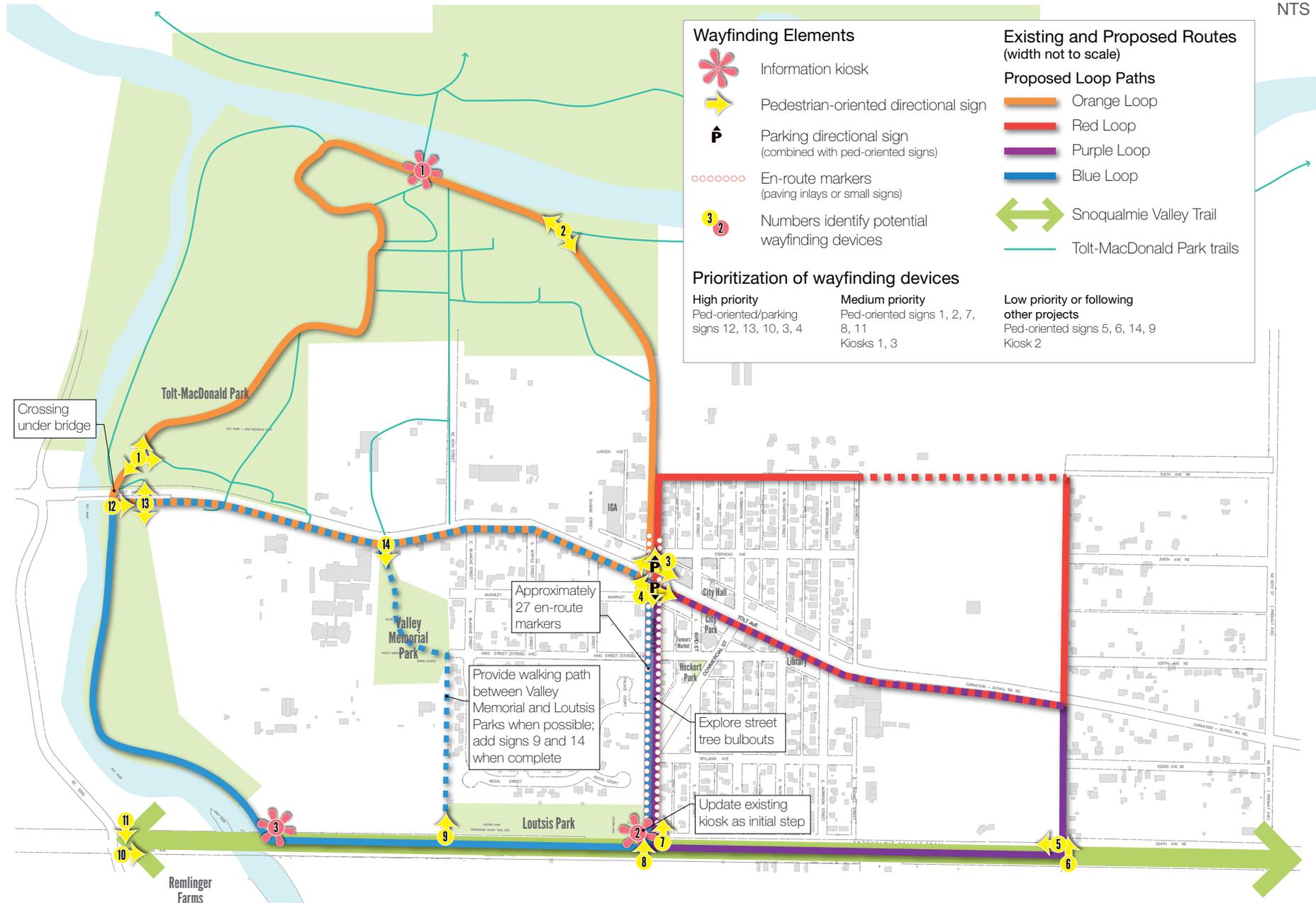
Project Funding

- WSDOT Pedestrian and Bicycle Safety Programs
- State Transportation Alternative Program (TAP) Funds from MAP-21 (includes previous Federal Transportation Enhancements, Safe Routes to School and Recreational Trails program funding)
- TIB Small City's Programs
- Business/Local Improvement District: Businesses "tax" themselves to provide funds for improvements from which they benefit
- Main Street Tax Credit Program. If Carnation develops a non-profit Main Street organization, businesses donate to it and receive tax credit worth 75% of the contribution. Other Main Street Trust Fund

opportunities may be available even without an eligible downtown organization

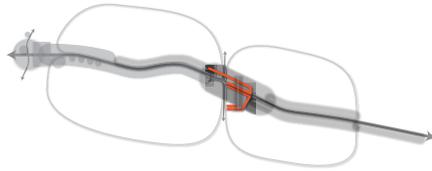
- Our Town Initiative (creative placemaking)
- Small Cities Community Development Block Grant (CDBG)
- Washington Tourism Alliance
- Community Transformation Grants

Wayfinding Loop Paths Plan (1 of 1)





WAYFINDING EN-ROUTE MARKERS [SECOND TIER PROJECT]



DESCRIPTION

The En-Route Markers project extends wayfinding devices to common paths in the downtown core. It involves designing, fabricating, and installing inlay paving and/or small signs and low-level lighting along:

- The alley parallel to and west of Tolt Avenue between the grocery store and Commercial Street (Alley 'J')
- Commercial Street between Alley 'J' and Stossel Avenue
- Stossel Avenue between Entwistle Street and Commercial Street
- Improvements addressed on other project pages:
 - both sides of Tolt Avenue between Entwistle Street and Commercial Street (see the Central Business District project page)

- Entwistle Street between the alley and the Snoqualmie Valley Trail (see the Loop Paths project page).

BACKGROUND

The en-route markers clarify and celebrate important routes in the downtown core. They let visitors know that they are in a special place and reassure them that they are going in the correct direction to reach particular destinations. To reduce visual clutter, paving inlays are preferred, especially on and near Tolt Avenue, unless a special effect might be created by using small signs.

The alley route becomes safer and more inviting for people who would like to walk between the downtown core and the grocery store away from Tolt Avenue traffic. Over time, businesses may orient outdoor seating or entries to this alley, so the en-route markers and lighting can begin to set

Wayfinding En-Route Markers

an ambience conducive to this. The markers may point to the grocery store, Tolt MacDonald Park, and Bird Street.

En-route markers on Commercial Street complete the paths circling the downtown core and point users to Hockert Park or Tolt Avenue.

The Stossel Avenue segment brings Entwistle Loop Trail users to the Bird Street Spine. This segment may need to move to Commercial Street between Entwistle Street and Hockert Park if the Loop Paths alignment moves off of Entwistle Street. In that case, the en-route markers would mostly signify the colored loop paths.

OBJECTIVE

En-route markers highlight important routes in and around the downtown core to invite people to walk and emphasize common routes and destinations. They also help build the identity of Carnation and reinforce its authentic sense of place.

Response to project's Guiding Principles:

- **Safe:** Low-level lighting on pedestrian routes, especially on the alley segment, may make the paths feel safer.
- **Welcoming:** As part of the wayfinding system, the en-route markers make it easier for visitors to find their way around Carnation.

- **Authentic:** The design of the inlays, signs, and lighting should reflect the small town character and fit the Carnation context.
- **Cohesive:** The materials, colors, and designs of en-route markers should match or complement the other wayfinding elements and Tolt Avenue streetscape improvements to be part of unified system.
- **Place-making:** En-route markers enhance the sense of place by boosting the character and visual liveliness of downtown, directing people to the public gathering space at Bird Street, and connecting to the places that make Carnation special (e.g., Snoqualmie Valley Trail, Farmers Market, and Tolt MacDonald Park).
- **Maintainable:** En-route markers and lighting should be designed for ease of maintenance.

PREREQUISITES AND SEQUENCING

The segments discussed on this page are a Second Tier project and a lower priority than the overall Tolt Avenue streetscape improvements, Bird Street Heart, and the en-route markers that are part of the Loop Paths. However, if funding is available for these en-route markers, they may be done before Tolt Avenue, Bird Street, and the Loop Paths as an impetus for additional downtown core activity.

Finalization of the Loop Paths alignment (based on Bird Street and Hockert Park design) will help determine the need for the Stossel Avenue route. Thus, for efficiency, this segment could follow the Loop Paths and Bird Street project. Alternatively, temporary or easy-to-move

markers could be placed on Stossel Avenue if funding for it becomes available first.

AGENCY AND STAKEHOLDER COORDINATION

Downtown Businesses

The City should coordinate with downtown businesses and property owners, particularly those along the alley, to ensure compatibility with business needs.

King County Parks

Since these projects relate to paths connecting to the Snoqualmie Valley Trail and Tolt MacDonald Park, King County Parks' input may be important.

CONSIDERATIONS FOR EXISTING CONDITIONS

The warehouse building on the alley between Bird Street and Entwistle Street provides a unique opportunity for vertical design elements to reinforce the alley path. Because space is fairly constrained at that point in the alley, the en-route markers will likely be in the ground as inlays or possibly painted on the warehouse.

The fence between Entwistle Street and the grocery store offers an opportunity for repeating small signs on the fence posts. This is one area where small signs, as

opposed to paving inlays, may add a feeling of liveliness without adding too much clutter.

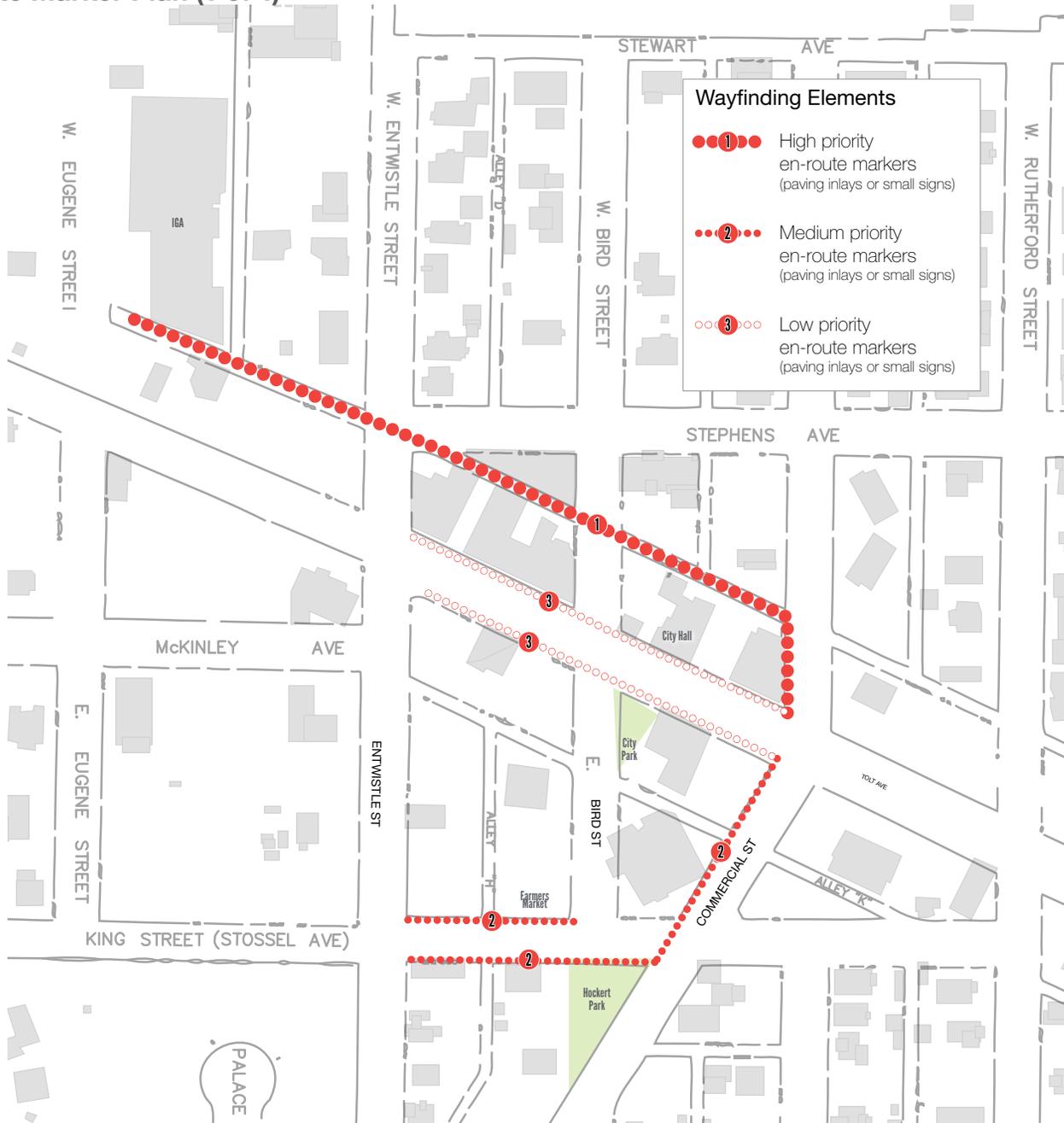
PROJECT COSTS AND FUNDING OPPORTUNITIES

Anticipated project costs range from \$7,000 to \$10,000. A summary and breakdown of these project costs is provided in Appendix G.

Project Funding

- Business/Local Improvement District: Businesses “tax” themselves to provide funds for improvements from which they benefit
- Main Street Tax Credit Program: If Carnation develops a non-profit Main Street organization, businesses donate to it and receive tax credit worth 75% of the contribution. Other Main Street Trust Fund opportunities may be available even without an eligible downtown organization
- Our Town Initiative (creative placemaking)
- Small Cities Community Development Block Grant (CDBG)
- Washington Tourism Alliance
- Transportation Alternatives Program (if done in conjunction with Tolt Ave Greenway and/or loop paths)
- Community Transformation Grants
- TIB Small City's Programs
- WSDOT Pedestrian and Bicycle Safety Programs

Wayfinding En-Route Marker Plan (1 of 1)



LARSEN AVENUE AND ALLEY CIRCULATION

DESCRIPTION

This project includes the Larson Avenue NE connector, which the City of Carnation has identified to support future development. This project would connect Entwistle Street and NE 40th Street, providing an alternate north-south route to the west of Tolt Avenue. The project would be expected to provide relief at the Tolt Avenue/NE 40th Street in two different ways. First, it would accommodate local north-south trips between destinations in western Carnation without requiring drivers to travel on Tolt Avenue at all. Second, for drivers proceeding farther north on Tolt Avenue than Entwistle, the Larson Avenue NE connection would provide a route to Entwistle Street, where drivers could choose to turn left at the signalized intersection.

The connector would also relieve congestion for events held at Tolt McDonald Park, by allowing for more than one route between the park and the surrounding roadway network, and provide easier access to downtown Carnation from the park.

Future traffic growth is also expected to further degrade operation of the eastbound and westbound stop-controlled movements at Tolt Avenue/Eugene Street. This project recommends alley improvements within the Alley 'J' which is parallel to and west of Tolt Avenue between the shopping center and Entwistle Street. Alley improvements and wayfinding provide eastbound vehicles exiting the shopping center a route to Entwistle Street, where drivers could choose to turn left at the signalized intersection. This project requires coordination between the City and the property owner and should consider impacts to pedestrians who currently use this route at access the shopping center from the downtown core.

