

# DRAFT CORRIDOR MASTER PLAN NARRATIVE

## ST. HELENS - US 30 & COLUMBIA BLVD./ST. HELENS ST. CORRIDOR MASTER PLAN

March 10, 2014

The following narrative is intended to act as a supplement to the three graphic boards dated March 10, 2014 showing Preliminary Master Plan Concepts for the US 30, Houlton, and Olde Towne project areas. The narrative provides a general description of the Overall Approach for each project area, as well as more detailed explanation of each of the Special Opportunity Areas, Conceptual Intersection Enhancements, and Streetscape Options as shown or identified on the drawings.

### Introduction and Background

This report summarizes and illustrates a set of alternative design concepts and improvements for the following three corridor areas:

- US 30
- Houlton, west of 13<sup>th</sup> Street
- Houlton/Olde Towne, east of 13<sup>th</sup> Street

The report includes the following information:

- Plan view drawings of the US 30 and Houlton/Olde Towne corridors showing the locations of various streetscape features such as improved pedestrian crossings, bicycle facilities, gateway features, medians, wayfinding signage, and special opportunity areas, among others.
- Three-dimensional cross-sections showing different streetscape design concepts for each corridor segment (three concepts for each segment)
- Potential improvements to key intersections in our study area, with multiple options shown in some cases
- Sketch of a gateway concept for the US 30/Columbia Boulevard intersection
- Narrative that describes the different streetscape design concepts, the special opportunity areas and the potential intersection improvements

This information builds on previous work conducted for this project, including a summary of existing conditions, a project Vision and Guiding Principles and a Streetscape Design Toolkit. Many of the potential improvements identified for the corridor segments are describe in more detail in that Toolkit. The concepts and options described in this document should be considered as a starting point for discussion.

The City, project consulting team, advisory committees, local business and property owners, St. Helens Planning Commission and City Council and other community members will review, compare and evaluate these concepts and ultimately recommend a preferred set of design concepts and improvements through the following process:

- Review and discuss the Streetscape Design Concepts with members of the project Technical Advisory Committee (TAC), Citizens Advisory Committee (CAC), business and property owners,



the St. Helens Planning Commission and other community members at a series of meetings in March and April.

- Further evaluate the Streetscape Design Concepts for consistency with the project Goals and Guiding Principles, including improving safety, economic vitality, appearance and function of these areas, as well as relative cost and financial feasibility of implementing the improvements.
- Based on the review and evaluation of the concepts, identify a preferred design concept and set of improvements for each corridor area.
- Review the preferred concepts with advisory committees, the St. Helens Planning Commission and other community members at a series of meetings in June.
- Further refine the Preferred Corridor Design Concepts and identify strategies for implementing them; summarize this information in a Draft Corridor Master Plan.
- Present the Corridor Master Plan for review and adoption by the St. Helens Planning Commission and City Council at work sessions and public hearings with these groups in the fall of this year.

Following are descriptions of each Corridor, including illustrations of Streetscape Design and intersection improvement alternatives.

## **US 30**

### OVERALL APPROACH

The proposed improvements along the US 30 highway corridor strive to improve safety while enhancing the character of the roadway to better create a sense of place and improve economic viability. These proposed improvements are shown on Figure 1, and are summarized below:

1. Improve N-S pedestrian crosswalks at roadway intersections and major driveway entrances along the west side of US 30 with a combination of bulb outs, enhanced paving, and/or striping.
2. Improve E-W pedestrian crosswalks across US 30 at Gable Road, Sykes Road, Columbia Boulevard, and St. Helens Street (north side only). New E-W crosswalks are proposed at Vernonia Road and Pittsburg Road (south side only) with anticipated future intersection signalization – crosswalks at Vernonia Road are not recommended if a new pedestrian walkway is not added along the east side of US 30 (see Streetscape Options 2 & 3 below). Also install new E-W crosswalks at either the north or south side of Wyeth Street with a raised median island (see Conceptual Intersection Enhancements 7A and 7B).
3. Enhance the west side of US 30 with new plantings behind the sidewalk on private property through redevelopment activity and/or partnerships between the City and private property owners, including shrubs and trees where feasible, as well as new banners on existing utility and light poles.
4. Enhance the east side of US 30 with new shrubs and trees where feasible, maintaining the 25' minimum setback from the railroad tracks and required sight lines at railroad crossings. New banners are also proposed on existing utility and light poles. Other potential improvements to

the east side of US 30 include a new 8' wide pedestrian walkway with a 4-5' tall fence next to the rail corridor that limits access onto ODOT Rail property, as well as pedestrian-scale light poles and other furnishings as appropriate in Streetscape Options 2 & 3 only.

5. New planted roadway medians are proposed at strategic locations (see Streetscape Options 2 & 3 below), subject to ODOT approval considering the freight classification of US 30. The areas where potential medians are conceptually shown assume that existing driveway access and left-turn lanes at public intersections will remain unchanged. The median areas will need to accommodate both long-term intersection left-turn queues and the taper transition design requirements established by ODOT through the Oregon Highway Design Manual (HDM). Generally speaking, ODOT will require the roadway cross section include a 2' shy distance between the median curb and adjacent travel lane. Median areas with planted trees will require a minimum 8' median island width per ODOT HDM standards. It should also be noted that one or more breaks in the conceptual median area shown between Milton Creek and S 22<sup>nd</sup> Street may be sought as properties west of US 30 redevelop in the future.

### STREETSCAPE OPTIONS

In addition to the improvements listed above, three alternative streetscape concepts are identified for consideration along the US 30 corridor project area, and are shown in Figures 3 - 5. In general, these options would apply to the entire US 30 corridor segment but some of the individual improvements are targeted to specific locations within the corridor. Through the use of landscape plantings, street trees, landscaped roadway medians, and improved pedestrian walkways & crossings, the three streetscape concepts presented here attempt to "humanize" this vehicle-dominated environment and create a civic identity befitting St. Helens. Each of the three concepts is explained in further detail below:

1. **OPTION 1 – "GREEN EDGE"**

This option proposes to eliminate existing US 30 crosswalks that don't connect with destinations and/or lack sidewalks, and introduces a linear swath of trees and shrubs that create a defined and aesthetically-pleasing edge to the highway while discouraging informal pedestrian crossings of US 30 and of the railroad tracks. Landscaping will be used to help announce key intersections and entrances to Houlton with variations in seasonal color and texture. Sculptural elements such as short walls or vertical elements are proposed to help draw people down to Olde Towne, and could help introduce a theme or material that could be repeated to unify the other project areas. Additionally, new shrub plantings are encouraged behind the sidewalk along the west side of the highway to create a needed visual and physical buffer between public sidewalks and private parking lots.

2. **OPTION 2 – "GREEN CORRIDOR"**

This option proposes to add a new pathway and planting strip with street trees along the east side of US 30, with enhanced pedestrian crossings at key intersections. A new 4-5' tall fence located east of the sidewalk would help discourage informal crossings of the railroad tracks. Subject to ODOT approval, raised planted medians with trees and shrubs are also proposed at strategic locations that would not impact existing highway access. Additionally, new tree and

shrub plantings are encouraged behind the sidewalk along west side of the highway to help visually soften that edge and reinforce US 30 as a Green Corridor.

3. **OPTION 3 – “COMPLETE STREET”**

Option 3 proposes to modify US 30 to more closely meet the recommended roadway cross section for Major Arterials as per the 2011 Transportation System Plan (TSP). To achieve this, the west curb would push out 2' to accommodate a new 4' wide planting strip with street trees between the curb and sidewalk. The turning lane would also be reduced to 14', which would require travel lane restriping and reconstruction of the curb along the east edge of the highway to accommodate a new sidewalk and planting strip with street trees. New pedestrian-scale lighting and furnishings are proposed at strategic locations. These elements would all work in concert to humanize US 30, creating a sense of place, and establishing it as a Complete Street serving the needs of vehicle users, bicyclists, and pedestrians.

SPECIAL OPPORTUNITY AREAS

A number of areas are identified in the accompanying graphics as “Special Opportunity Areas.” These locations provide prospects for signature improvements that will enhance the corridor and meet specific community goals or needs in this area such as creation of gathering places, gateway features, viewpoints or stormwater management features. Several of the recommended Special Opportunity Areas identified are located on private property, which would require the City to purchase the land and develop these facilities. These ideas are preliminary, and would need the support of those property owners to move forward.

- A. **PEDESTRIAN BRIDGE CROSSING AT MILTON CREEK** – A critical link to the successful establishment of a new pedestrian walkway along the east side of US 30 is a new pedestrian bridge crossing at Milton Creek. This bridge will most likely need to be constructed independently of the existing roadway bridge currently spanning the creek, though it may be possible to cantilever the walkway if financially feasible. There also may be opportunities to integrate current art/sculptural concepts being explored for the roadway bridge into the pedestrian bridge.

CONCEPTUAL INTERSECTION ENHANCEMENTS

We have identified a number of potential improvements to address traffic safety and operational issues and concerns at specific locations in this corridor. These options are intended to improve safety for all users (drivers, bicyclists and pedestrians), while also enhancing the appearance and function of the transportation system. The option numbers correspond to the exhibits shown on Figures 15-18.

- **7A** – This sketch illustrates an enhanced pedestrian crossing at the south leg of the US 30/Wyeth Street intersection. Conceptually, the crossing would include signing, striping, and a raised median island to help facilitate pedestrian movements across US 30. Subject to ODOT review and approval, the crossing may also include Rectangular Rapid Flash Beacons (RRFB) on the shoulders and in the center median or a High-Intensity Activated crossWalk (HAWK) signal. This treatment would also restrict left-turn movements from US 30 into the

- Columbia Commons Business Campus. ODOT approval would be required for any intersection improvements; coordination with ODOT Rail is also likely to be needed.
- 7B – This sketch illustrates similar features as 7A; however the enhanced pedestrian crossing is at the north leg of the US 30/Wyeth Street intersection. This treatment would restrict left-turn movement from US 30 onto Wyeth Street. Like Option 7A, ODOT approval would be required for any intersection improvements – coordination with ODOT Rail is also likely to be needed.
  - 8 – This sketch illustrates a minor variation on the existing striping at the westbound approach to the US 30/Gable Road intersection that accommodates continuous bicycle lanes through the intersection. A Bike Box is also shown in the westbound through-right turn lane to improve visibility of cyclists as well as give them priority at the intersections.

## Houlton & Olde Towne

### OVERALL APPROACH

Two predominate roadway types comprise the Houlton and Olde Towne project areas: one-way streets along Columbia Boulevard and St. Helens Street between US 30 and 13<sup>th</sup> Street; and two-way streets along Columbia Boulevard east of 13<sup>th</sup> Street, along 1<sup>st</sup> Street between Columbia Boulevard and St. Helens Street, and along St. Helens Street between 1<sup>st</sup> Street and 4<sup>th</sup> Street. In developing concepts for improving each of these roadway types, our overall approach considers the Houlton and Olde Towne project areas as a whole, working in concert to create a cohesive Preliminary Master Plan for the entire Main Street corridor. We believe this is a viable strategy since many of the overall streetscape concepts apply to each project area, which gives us a framework from which to develop distinctive options of each roadway type for review and input.

Overall concepts for the Houlton & Olde Towne project areas are shown on Figure 6, and focus primarily on improving pedestrian safety, eliminating excessively wide portions of paved roadway in favor of widened pedestrian sidewalks, and enhancing the identity of this area. The following list summarizes the overall approach for improving Houlton & Olde Towne. These goals build on and are consistent with the Vision and Guiding Principles developed for this project, as well as discussion with advisory committee and community members.

1. Establish a gateway at the US 30 / Columbia Boulevard intersection that draws people into the Houlton area and towards Olde Towne. Additional gateway elements are proposed at 13<sup>th</sup> Street to mark the arrival to Houlton's commercial couplet, and one at Columbia Boulevard and 1<sup>st</sup> Street marking the arrival to Olde Towne (see Figures 6 & 19).
2. Reduce travel lanes to the minimum recommended width of 12' per the TSP, and dedicate the leftover space to widening pedestrian sidewalks on each side of the street. Consider future roadway improvements along side streets and connections to key destinations outside of the Houlton & Olde Towne study areas.

3. Improve E-W pedestrian corridors on both sides of St. Helens Street and Columbia Boulevard with a combination of widened sidewalks, landscape plantings, green street facilities, and pedestrian amenities such as special paving and street furnishings. Consider future pedestrian corridor improvements along side streets and connections to key destinations outside of the Houlton & Olde Towne study areas.
4. Improve pedestrian crossings at every intersection with a combination of bulbouts, mid-block crossings, enhanced paving, and/or striping.
5. Locate wayfinding signs at key intersections that include maps and directories to guide people to various neighborhood amenities and destinations within and outside of the Houlton & Olde Towne project areas.

#### STREETSCAPE OPTIONS – West of 13<sup>th</sup> Street

In addition to the improvements and concepts listed above, three alternative streetscape concepts have been developed for the Columbia Boulevard and St. Helens Street couplet, which are primarily one-way streets west of 13<sup>th</sup> St. Through the use of widened sidewalks, street trees & plantings, site furnishings, and improved pedestrian walkways & crossings, the three streetscape concepts presented here improve the safety of pedestrians while creating a sense of place and identity for St. Helens. Each of the three concepts is shown in Figures 8-10, and is explained in further detail below:

1. **OPTION 1 – “PEDESTRIAN PROMENADE”**

This option proposes to narrow one-way travel lanes to 12', and dedicate the leftover space towards widened sidewalks with generous planting strips and/or furnishing zones on both sides of the street. Street trees and plantings soften the streetscape and create an aesthetically-pleasing buffer between the paved roadway and pedestrian areas. Bulbouts shorten the pedestrian crossing distance from 45'-55' in the current roadway conditions down to 30' in this option, improving pedestrian safety.

2. **OPTION 2 – “GREEN SPINE”**

This option proposes to narrow one-way travel lanes like Option 1, but locates an elevated “cycle track” between the parking lane and the sidewalk. The cycle track is buffered by planting strips & furnishing zones on either side, which help designate the bike lane from adjacent pedestrian areas, and visually creates a soft, green “spine” extending through the downtown area. New widened sidewalks with planting strips & furnishing zones are proposed on each side of the street, with bulbouts at intersections shortening the crossing distance to 24' across Columbia Boulevard and St. Helens Street.

3. **OPTION 3 – “PARKLETS”**

This option proposes to narrow one-way travel lanes like Options 1 & 2, but proposes back-in angled parking along the south side of Columbia Boulevard and the north side of St. Helens Street. While back-in angled parking has been successfully implemented in a number of other Oregon communities such as Sisters, Pendleton, and Portland, and provides safety benefits for drivers and bicycles, this streetscape option also could work with more traditional angled parking. Striving for no net loss or gain in parking allows for an efficient parking layout that makes room for large, unprogrammed sidewalk areas called “parklets” at each intersection

corner. Each parklet can respond in character and layout to the adjacent land use. For example, parklets adjacent to restaurants or cafes along Columbia Boulevard could have outdoor seating and tables, which would activate street corners and encourage people to stop and linger. Conversely, parklets adjacent to residences along St. Helens Street might be passive, landscaped areas with a bench or two, and thus have a more park-like character consistent with that residential setting. On-street parking areas are shown to have special paving that visually extends the parklet, offering adjacent business owners with potential for temporarily setting up outdoor seating or shopping areas in parking stalls that are visually differentiated from the adjacent roadway. A lower cost option could allow for temporary creation of the parklets within the parking area without creating a new raised, curbed area. This idea has been implemented in a number of other communities around the country, including San Francisco, New York City and Portland.

### STREETSCAPE OPTIONS – East of 13<sup>th</sup> Street

In addition to the improvements and concepts listed above, three streetscape concepts have been identified for the two-way portion of Columbia Boulevard east of 13<sup>th</sup> Street. Through the use of widened sidewalks, street trees & plantings, site furnishings, and improved pedestrian walkways & crossings, the three streetscape concepts presented here improve the safety of pedestrians while creating a sense of place and identity for St. Helens. Please note, these concepts do not apply to 1<sup>st</sup> St between Columbia Boulevard and St. Helens Street, which has a unique configuration demanding special attention. However, they could be applied with some modifications to the section of St. Helens Street between 1<sup>st</sup> Street and 4<sup>th</sup> Street. Each of the three concepts is shown Figures 12-14, and is explained in further detail below:

1. OPTION 1 – “PEDESTRIAN PROMENADE”

This option proposes to narrow two-way travel lanes to 12', and dedicate the leftover space towards widened sidewalks with generous planting strips and/or furnishing zones on both sides of the street. Street trees and plantings soften the streetscape and create an aesthetically-pleasing buffer between the paved roadway and pedestrian areas. Bulbouts shorten the pedestrian crossing distance from 55'-60' in the current roadway condition down to 36' in this option, improving pedestrian safety.

2. OPTION 2 – “BOULEVARD”

This option proposes to narrow two-way travel lanes, and widen sidewalks with planting strips, site furnishings, and street trees as in Option 1, but proposes raised landscaped medians that separate the east- and west-bound lanes and convert Columbia into a true boulevard. Each median would be strategically located so as to not impact existing access onto Columbia Boulevard. Additionally, the center median street trees help to humanize the scale of the street, which reinforces this primarily residential setting. Bulbouts and pedestrian refuge islands in this option shorten the crossing distance to 18' per direction of travel', improving pedestrian safety.

3. OPTION 3 – “PARKLETS”

This option proposes parklets similar to that of Streetscape Option 3: West of 13<sup>th</sup> Street, above. In this option, however, due to the added bicycle lane in this two-way roadway configuration,



the right-of-way would not accommodate a planting strip between back-in or traditional angled parking lane and the sidewalk along the south side of Columbia Boulevard.

SPECIAL OPPORTUNITY AREAS

A number of areas are identified in Figures 1 & 6 as “Special Opportunity Areas.” These locations provide prospects for signature improvements that will enhance the corridor and meet specific community goals or needs in this area such as creation of gathering places, gateway features, viewpoints or stormwater management features. Several of the recommended Special Opportunity Areas identified are located on private property, which would require the City to purchase the land and develop these facilities. These ideas are preliminary, and would need the support of those property owners to move forward.

- A. DOWNTOWN GATEWAY – A gateway feature that marks the entrance to downtown St. Helens is proposed along US 30 between St. Helens Street and Columbia Boulevard to help draw people into Houlton and towards Olde Towne. The feature should be highly visible, and representative of the spirit and culture of St. Helens. A number of site constraints should be considered, including proximity to the railroad tracks, required sight lines, and limited landscape area. Subject to ODOT approval, this feature could be one or any combination of typical gateway features, including an arched gateway monument, a sculptural or iconic element, or a vibrant and expansive landscaped area.
- B. STORMWATER / INTERPRETIVE GATHERING SPACE – Located at the heart of the Houlton area, a vacant, depressed city block provides a special opportunity for creating a public space that could serve the many needs of the community. The site is situated at the low point of the Houlton area, making it a prime location for a large-scale stormwater detention basin with pedestrian trails or boardwalks, as well as interpretive elements that recall the natural history of the St. Helens area.
- C. CIVIC GATHERING SPACE: 13<sup>TH</sup> STREET– A wedge-shaped parcel located at 13<sup>th</sup> Street where Columbia Boulevard and St. Helens Streets converge could accommodate a flexible, pedestrian-oriented, paved outdoor space that could host a number of different civic events. This space could be designed to work in concert with the stormwater / interpretive gathering space located across 14<sup>th</sup> Street. As described in the Conceptual Intersection Enhancements 3B and 3C, the overall size of the wedge could increase significantly over what is there today.
- D. CIVIC GATHERING SPACE: 9<sup>TH</sup> STREET – A large, elevated lawn area at 9<sup>th</sup> Street adjacent to the elementary school could accommodate a civic gathering space that is oriented towards families, education, or cultural or natural history of St. Helens.
- E. CIVIC GATHERING SPACE: 2<sup>ND</sup> STREET – An existing lawn area at 2<sup>nd</sup> Street is located in the heart of a residential neighborhood, and could host a variety of civic events with a park-like setting. If this idea moves forward, it will be essential carefully consider the type and hours of use of this area and minimize impacts on adjacent residents and property owners.
- F. COLUMBIA RIVER OVERLOOK – An existing gravel parking lot in City right-of-way at the end of Columbia Boulevard offers great views of the Columbia River. Nestled between two residences, an overlook with seating could provide some respite off the beaten path and a new way for the community to experience a natural wonder in their backyard.



- G. OLDE TOWNE OVERLOOK – An elevated portion of 1<sup>st</sup> Street offers great views of Olde Towne’s “Main Street”, the historic Columbia County Courthouse, and the Columbia River beyond. An overlook with seating and other pedestrian accommodations is proposed here, and would be accessed by a new pedestrian walkway along the top of the basalt outcrop wall.

#### CONCEPTUAL INTERSECTION ENHANCEMENTS

As in the US 30 corridor segment, we have identified a number of potential improvements to address traffic safety and operational issues at specific locations in the Houlton/Olde Towne area. These options are intended to improve safety for all users (drivers, bicyclists and pedestrians), while also enhancing the appearance and function of the transportation system. The option numbers correspond to the exhibits shown on Figures 15-18.

- 1A – This sketch illustrates potential modifications to the Milton Way/Columbia Boulevard intersection, including a separate westbound left-turn lane from Columbia Boulevard to Milton Way. This potential modification is intended to provide a way for motorists to continue south along Milton Way without traveling the wrong way on Columbia Boulevard. This modification also includes narrowing the east leg of the US 30/Columbia Boulevard intersection to a single lane with continuous bike lane striping from US 30 to east of Milton Way.
- 1B – This sketch conceptually illustrates provision of a “splitter island” at the northbound approach to the Milton Way/Columbia Boulevard intersection. This island is intended to prevent southbound motorists on Milton Way north of Columbia Boulevard from traveling the wrong way on Columbia Boulevard to continue south along Milton Way. The island offers the added benefit of providing pedestrians along Columbia Boulevard with a refuge while crossing Milton Way.
- 2A – This sketch illustrates a potential alternative to transition the two eastbound travel lanes along Columbia Boulevard to one lane before 13<sup>th</sup> Street. The changes reduce some of the pedestrian exposure crossing Columbia Boulevard. The raised median island at the 13<sup>th</sup> Street/Columbia Boulevard intersection is also modified to better accommodate left-turn movements at the intersection.
- 2B – This sketch illustrates potential modifications to the block bounded by 14<sup>th</sup> Street, Columbia Boulevard, and St Helens Street that incorporates the raised median island at the 13<sup>th</sup> Street/Columbia Boulevard intersection and results in the removal of the eastbound left turn lane between 14<sup>th</sup> Street and 13<sup>th</sup> Street. The remnant area could be used for sidewalk, street frontage, parking, or other purposes.
- 2C – This sketch is similar to 2B that incorporates additional treatments at the surrounding intersections as well as potential lane configurations along Columbia Boulevard and St Helens Street.
- 3 – This sketch illustrates minor variations on the existing lane configurations of Columbia Boulevard east of 11<sup>th</sup> Street and adjacent to the Lewis & Clark Elementary School, including wider sidewalks, removal of the shoulder along the south side of the roadway, removal of

the eastbound right-turn lane and the addition of a crosswalk at the west leg of the 9<sup>th</sup> Street/Columbia Boulevard intersection.

- 4A – This sketch illustrates a mini-roundabout at the 1<sup>st</sup> Street/Columbia Boulevard intersection as well as potential lane configurations along 1<sup>st</sup> Street south of Columbia Boulevard and Columbia Boulevard west of 1<sup>st</sup> street. The concept would provide a new north-south crosswalk on the west leg of the intersection. A traffic circle in this location would calm traffic within the Olde Towne area, better define intersection travel paths, provide additional opportunities for green space, and improve the overall aesthetics and appeal of the area. The intersection can be designed to continue to accommodate truck traffic.
- 4B - This sketch illustrates a minor variation on the existing 1<sup>st</sup> Street/Columbia Boulevard intersection that facilitates continuous motor vehicle movements between Columbia Boulevard and 1<sup>st</sup> Street. Potential lane configurations along 1st Street south of Columbia Boulevard and Columbia Boulevard west of 1<sup>st</sup> street are also shown. Following the current roadway use, the northeast leg of the intersection is shown as a driveway as opposed to a local street connection to provide access to the existing residential properties to the north and east of the intersection.
- 5A – This sketch illustrates an enhanced bicycle treatment at the US 30/St Helens Street intersection as well as potential lane configurations along St Helens Street east of 21st Street. As shown, the bicycle lane continues straight through to US 30, while the right-turn lane is developed on the north side of the bike lane. Motorists must cross the bike lane to access the right-turn lane. A small splitter island is also shown at the westbound approach to the US 30/St Helens Street intersection to improve crossing conditions for pedestrians as well as provide further separation between cyclists and right-turning motorists.
- 5B – This sketch is similar to 5A; however, the right-turn lane is developed on the south side of the bike lane. A painted “Bike Box” (an area established for bicycles to wait in front of the first stopped vehicle in line) is also shown as optional at the westbound approach to the US 30/St Helens Street intersection to improve visibility of cyclists as well as give them priority at the intersection.
- 6 – This sketch illustrates a mini-roundabout at the 1<sup>st</sup> Street/St Helens Street intersection as well as potential lane configurations along 1<sup>st</sup> Street north and south of the intersection and along St Helens Street east and west of the intersection. It also illustrates the location of crosswalks at each leg of the intersection. A mini-roundabout in this location would calm traffic within the Olde Towne area, reduce pedestrian crosswalk lengths, increase intersection capacity, improve intersection safety, provide additional opportunities for green space, and improve the overall aesthetics and appeal of the area. The intersection can be designed to continue to accommodate truck traffic.
- 9 - This sketch illustrates elimination of the existing eastbound right-turn lane from Columbia Boulevard to 18th Street at the signalized intersection. The right-turn lane would be replaced with on-street parking and curb extensions would be provided on all four quadrants of the SE 18th Street/Columbia Boulevard intersection to reduce pedestrian

crossing distances. Final design of the intersection would need to accommodate truck turn movements toward the Port area.