

CORRIDOR MASTER PLAN DESIGN OPTIONS AND EVALUATION REPORT

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

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TRANSPORTATION ENGINEERING/PLANNING



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The contents of this document do not necessarily reflect views or policies of the State of Oregon.

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INTRODUCTION

The City of St. Helens is working with a project team of staff from the Oregon Department of Transportation (ODOT) and urban design, land use planning, and transportation engineering and planning consultants to develop a Corridor Master Plan for the US 30, Columbia Boulevard/St. Helens Street within the Houlton/Old Towne area - West of 13th Street, and Columbia Boulevard/St. Helens Street within the Houlton/Old Towne area - East of 13th Street corridor segments. The plan will reflect the community's vision of how these areas should appear and function in the future, and will include measures for how to implement the plan. The plan will focus primarily on how the major streets and intersections in these areas are designed and improved over time to ensure that vehicles, bicyclists and pedestrians have ready access to local businesses and can travel safely and comfortably within and between these different parts of town.

As initial steps in the corridor planning process, the City's project team prepared a series of technical memoranda describing existing and projected future conditions in the study area, including land use, urban design, access, and relevant plans and policies, as well as different strategies or approaches that may be used to meet the goals for the corridor.

The previous design options report summarized and illustrated a set of alternative design concepts and improvements for the three corridor segments, including:

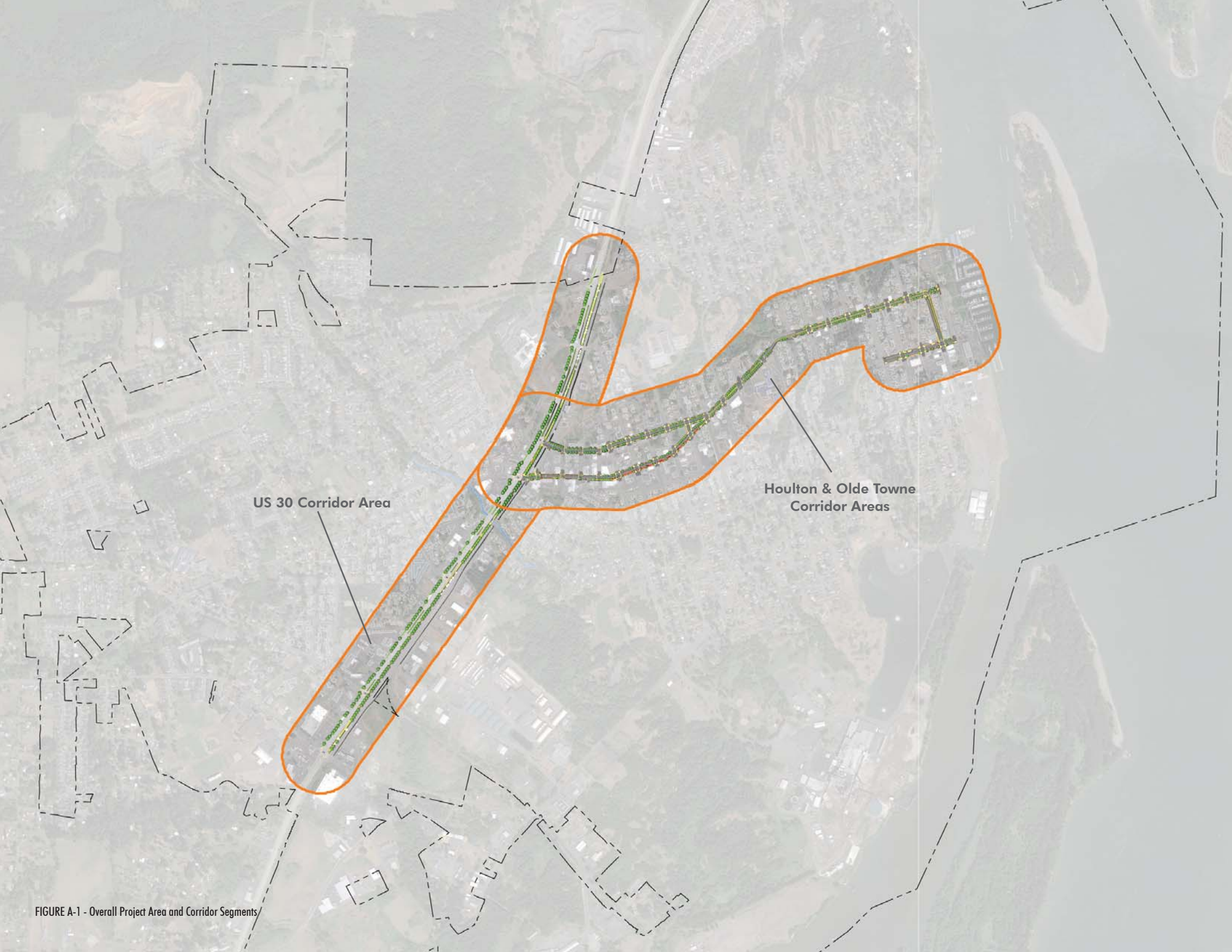
- proposed plan view drawings of the corridor segments (with elements such as pedestrian crossings, gateway features, and special opportunity areas);
- three-dimensional cross-sections showing streetscape design options for each corridor segment; and
- potential enhancements to key intersections in the project area.

The information in the design options report built on previous work conducted for this project, in particular, the project Vision and Guiding Principles, existing conditions report, and Streetscape Design Toolkit. The project team, advisory committees, local business and property owners, St. Helens Planning Commission and City Council, and other community members reviewed and evaluated the design options, and the project team has prepared this Design Options Evaluation report incorporating ideas and feedback received to date.

The Table of Contents for this report is as follows. Sections that address recommendations and design options are broken down into the three corridor segments.

- Summary of Draft Recommendations
- Evaluation of Draft Corridor Design Options
 - Summary of Evaluation Criteria and Process
 - Summary of Options Evaluated
 - Rationale for Recommended Design Options
- Recommended Corridor Design Options
 - Overall Approach
 - Streetscape Design Concepts
 - Special Opportunity Areas
 - Conceptual Intersection Enhancements
 - Phasing recommendations and cost considerations
- Policy and Regulatory Changes
 - Land Use Issues and Potential Changes
 - Development Code Changes or Strategies
 - Access Management Goals and Approach
- Next Steps

The Next Steps section addresses what will be done with this report and the project process that follows.



US 30 Corridor Area

Houlton & Olde Towne
Corridor Areas

FIGURE A-1 - Overall Project Area and Corridor Segments

A. SUMMARY OF DRAFT RECOMMENDATIONS

US 30 Corridor Segment

DESIGN RECOMMENDATION FOR US 30 CORRIDOR SEGMENT

- Option 1 (Green Edge), short-term
- Sidewalk and fencing on the rail side as shown in Option 2 (Green Corridor), long-term

The streetscape design option recommended for the US 30 Corridor Segment is Option 1 (Green Edge) with lower-cost plantings in the median, a combination of banner poles, and more consistent landscaping on the east side (rail side) of the highway in the short-term

Developing sidewalk and fencing on the rail side, as is shown in Option 2 (Green Corridor), is recommended in the long-term, if feasible within the available area and rail constraints.

The recommendation includes planted center medians at designated locations throughout the corridor segment and fencing on both sides of the rail corridor. An initial review of the corridor segment shows that there is enough room on the rail side of the highway for a six-foot sidewalk and at least three feet of landscaped area along the entire length of the US 30 corridor segment.

Two **Special Opportunity Areas** are recommended for the US 30 corridor segment.

- US 30/Downtown Gateway
- Pedestrian Bridge at Milton Creek

Conceptual Intersection Enhancements are recommended at the following intersections in this corridor segment.

- US 30 @ Wyeth Street
- St. Helens Street @ US 30

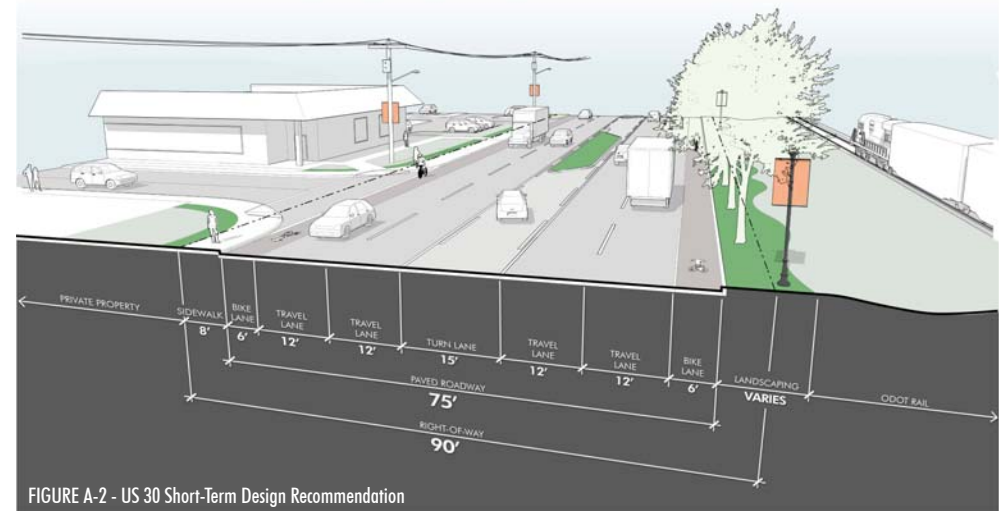


FIGURE A-2 - US 30 Short-Term Design Recommendation

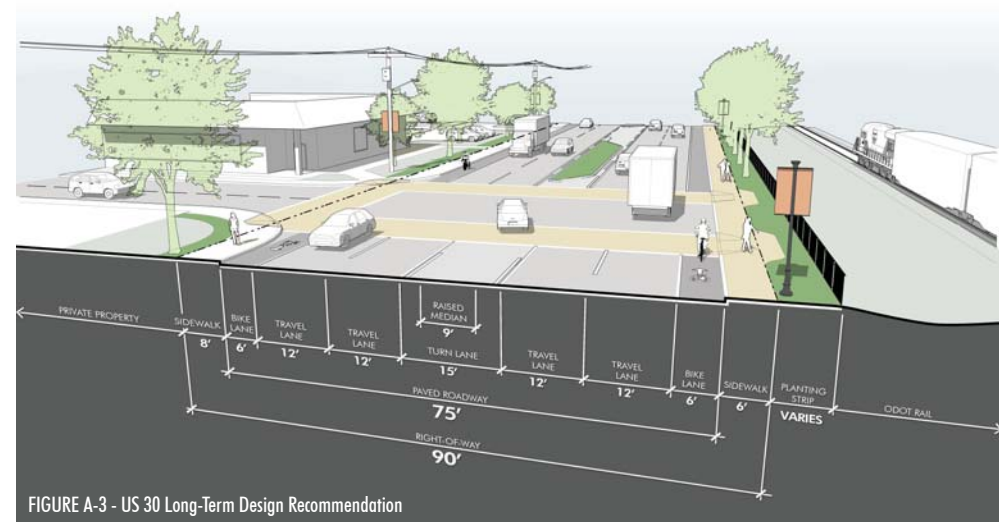
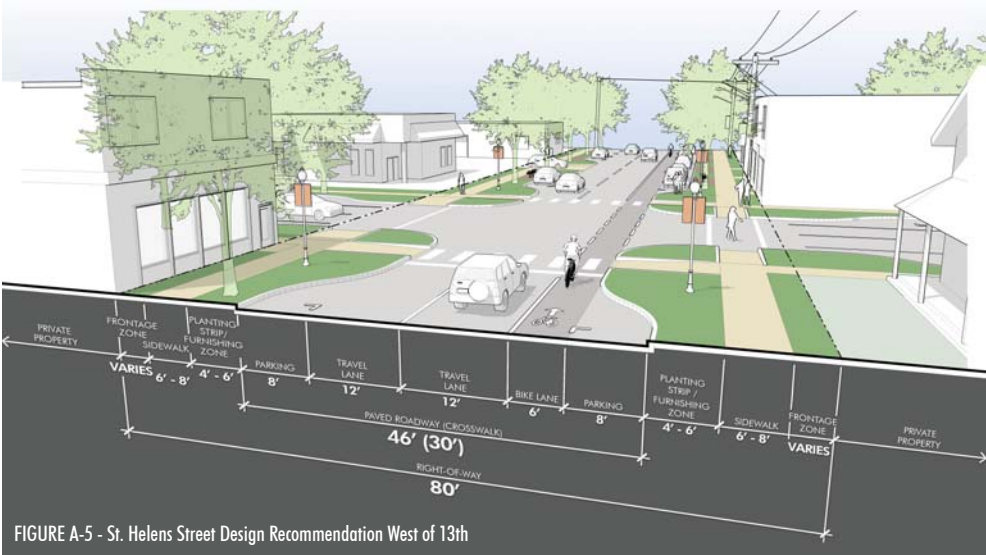
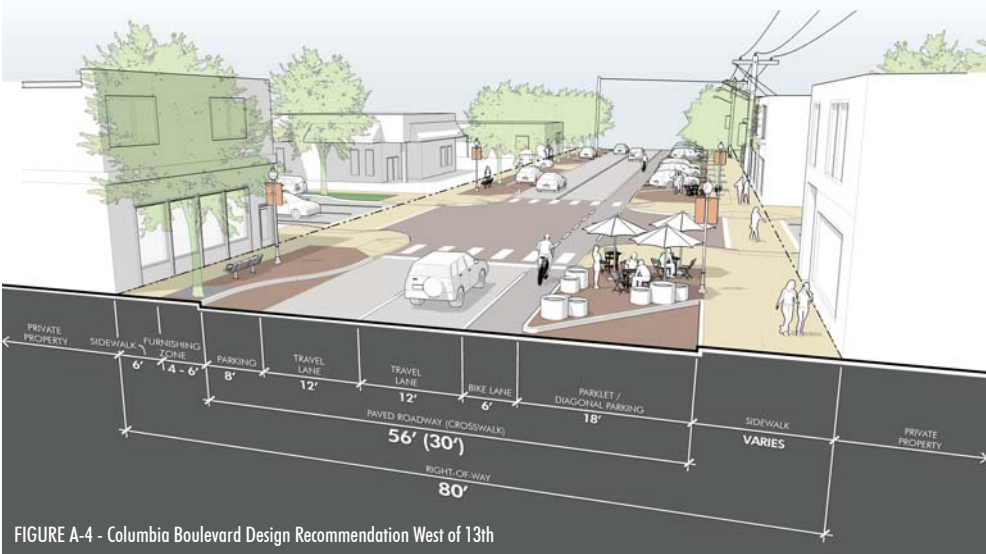


FIGURE A-3 - US 30 Long-Term Design Recommendation



Houlton/Olde Towne – West of 13th Street

DESIGN RECOMMENDATION FOR HOULTON/OLDE TOWNE – WEST OF 13TH STREET
<ul style="list-style-type: none">Columbia Boulevard: Option 3 (Parklets)St. Helens Street: Option 1 (Pedestrian Promenade), with buffered bicycle lanes

This Parklet option proposed on the majority of Columbia Blvd includes wider sidewalks, a bicycle lane and on-street parking on both sides of the street, with angled parking provided along the south side of Columbia Boulevard. This efficient parking layout allows room for large, open sidewalk areas called “parklets” at each intersection corner and/or in selected mid-block locations. Given the available right-of-way, angled parking would not be feasible between US 30 and 18th Street. In that area, parallel parking would be provided but parklets could still be included based on requests or agreements between property owners and the City in place of some on-street parking.

The Pedestrian Promenade on St. Helens Street includes widened sidewalks with generous planting strips and/or furnishing zones with street trees on both sides of the street. Curb extensions are proposed at all intersections in both the Parklet and Pedestrian Promenade options.

Three **Special Opportunity Areas** are recommended for this corridor segment.

- Gateway Plaza - Columbia Blvd & Milton Way (Chamber of Commerce)
- Stormwater / Interpretive Gathering Space - Columbia Blvd & 14th Street
- Civic Gathering Space - Columbia Blvd & 13th Street

Conceptual Intersection Enhancements are recommended for the following sets of intersections in this corridor segment.

- Columbia Boulevard @ Milton Way
- Columbia Boulevard @ 18th Street
- Columbia Boulevard / St. Helens Street @ 13th Street

Houlton/Olde Towne – East of 13th Street

DESIGN RECOMMENDATION FOR HOULTON/OLDE TOWNE – EAST OF 13TH STREET

- Primarily Option 1 (Pedestrian Promenade), with buffered bike lanes
- Allow for Option 3 (Parklets) in some locations where appropriate

As noted above, the Pedestrian Promenade option includes widened sidewalks with generous planting strips and/or furnishing zones with street trees on both sides of the street, along with curb extensions at all intersections. Identifying opportunities for parklets are recommended for this corridor segment in situations such as temporary parklets within parallel on-street parking areas. Curb extensions and improved crossings at the intersections are also recommended.

Four **Special Opportunity Areas** are recommended for this corridor segment.

- Civic Gathering Space – Columbia Boulevard & 9th Street
- Civic Gathering Space – Columbia Boulevard & 2nd Street
- Columbia River Overlook – Columbia Boulevard just east of 1st Street
- Olde Towne Overlook – 1st Street between Columbia Boulevard & St. Helens Street

Conceptual Intersection Enhancements are recommended for the following sets of intersections in this corridor segment.

- Columbia Boulevard @ 11th Street
- Columbia Boulevard @ 9th Street
- Columbia Boulevard @ 7th Street
- Columbia Boulevard @ 1st Street
- St. Helens Street @ 1st Street



FIGURE A-6 - Columbia Boulevard Design Recommendation East of 13th

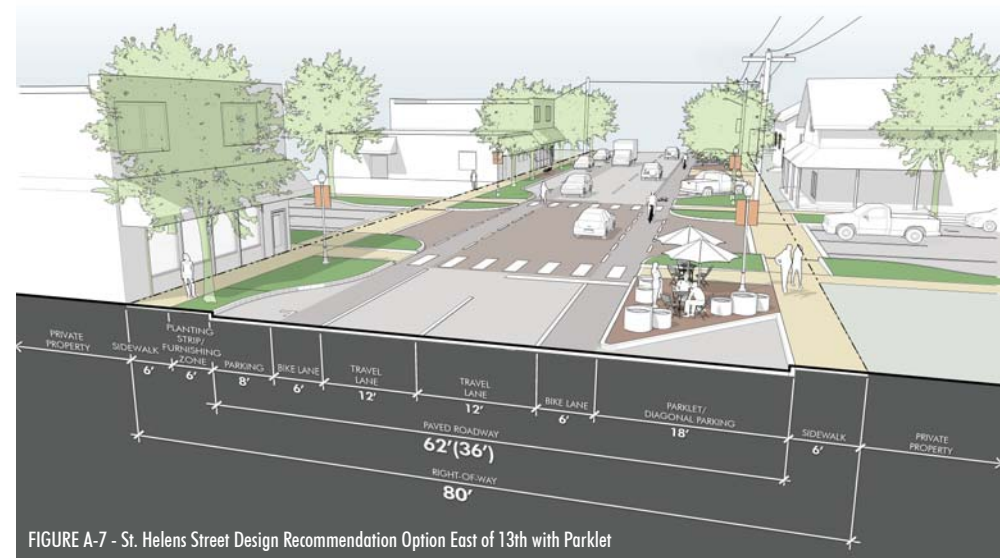


FIGURE A-7 - St. Helens Street Design Recommendation Option East of 13th with Parklet

B. EVALUATION OF DRAFT CORRIDOR DESIGN OPTIONS

Summary of Evaluation Criteria and Process

In evaluating the relative merits of different street design options, the project team considered the goals and guiding principles developed in earlier phases of the project, along with the feedback and recommendations received from community members including:

- Business and property owners
- Technical and citizen advisory committees
- St. Helens Planning Commission
- St. Helens City Council

Following is a summary of the project goals and objectives and feedback received from those groups.

EVALUATION CRITERIA

GOALS AND GUIDING PRINCIPLES

One of the first steps in the Corridor Planning process was to identify a Vision for the area and a set of related goals and guiding principles for the project and the different corridor segments being addressed by it. This document includes a vision, goals and guiding principles which were reviewed and refined based on discussion with project advisory committee members, local business and property owners, the St. Helens City Council and other community members.

CORRIDOR VISION

US 30 Corridor Segment

Highway 30 will provide safe, convenient access to local businesses along the highway, while balancing that with state goals for traffic mobility. The appearance of the highway will be improved over time to enhance landscaping and other elements that will make it a more attractive place for people to travel by car, bicycle, walking or transit. Key intersections such as at Gable Road, Columbia Blvd. and St. Helens Street will be improved to enhance safety for all types of travel and to create attractive, clearly recognizable gateways to other parts of St. Helens, helping meet the community's goals for economic revitalization in those areas.

Columbia Blvd./St. Helens Street Segment

Columbia Blvd. and St. Helens Street will provide safe, convenient travel to access the Houlton business area, Olde Towne and adjacent neighborhoods by drivers, bicyclists and pedestrians. These streets will provide good access to local businesses and be attractively designed to help draw people to the area and enhance their shopping and travel experiences. Street designs will incorporate opportunities for landscaping, public art and signage that directs people to the Houlton area and Olde Towne. Designs will recognize physical conditions and constraints, be cost-effective and build on natural and cultural features and other opportunities in the area.

OVERALL PROJECT GOALS

- Create "streetscape" plans for the US 30 and Columbia Blvd./St. Helens Street corridors that reflect the community's vision for appearance and function.
- Improve the aesthetics and function of the corridors to attract business and investment, provide better access, direction and signage to the Houlton and Olde Towne areas, and improve desirability.

PROJECT AND CORRIDOR GUIDING PRINCIPLES**Planning Process and Community Involvement**

- Establish a community vision, goals and guiding principles for the project area.
- Engage business and property owners, residents, stakeholders, and elected and appointed officials.
- Ensure consistency with local and state plans and policies.

Economy and Business Support

- Develop planning design and implementation standards to revitalize businesses and business districts in the planning area.
- Ensure that customers, employees and others have good access to local businesses, including through on-street parking.
- Ensure that proposed solutions and projects are cost-effective and make efficient use of limited resources.

Transportation Safety and Mobility

- Improve street connectivity, design, and ability to access and locate business areas.
- Improve pedestrian and bicycle safety and accessibility, thereby encouraging walking and bicycling.
- Balance the need for local access and traffic calming with the need to provide for through-traffic movement and mobility (particularly in the US 30 corridor) as well as emergency vehicle accommodations
- Develop and implement solutions that are consistent with local and regional transportation needs.

Connectivity and Streetscape Aesthetics

- Improve the appearance of the US 30 and Columbia Blvd./St. Helens St. corridors (Houlton area).
- Improve pedestrian and bicycle connectivity between the corridor areas and adjacent open spaces and parks, trail/bicycle/transit networks, and neighborhoods.
- Develop and apply street designs that serve the unique needs of each corridor segment (US 30, Houlton and Olde Towne).
- Consider opportunities for integrating sustainable design strategies into the streetscape design and implement them where appropriate.

PROCESS

The Streetscape Design Concepts have been reviewed and discussed 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. The Streetscape Design Concepts also have been evaluated 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, the project team identified a preferred design concept and set of improvements for each corridor area which will be reviewed further by advisory committee and other community members.

Summary of Options Evaluated

US 30 CORRIDOR SEGMENT

Three alternative streetscape design options were developed for consideration for the US 30 corridor segment of the project area, and are shown in Figure B-1. In general, these options would apply to the entire corridor segment but some of the individual improvements are targeted to specific locations within the corridor. Each concept attempts to “humanize” this vehicle-dominated environment and create a civic identity befitting St. Helens through the use of landscape plantings, street trees, landscaped roadway medians, and improved pedestrian sidewalks and crossings. Each of the three concepts is described in further detail below. The descriptions are followed by a summary of responses from advisory committees, business and property owners, the Planning Commission, and City Council to these options.

OPTION 1: “GREEN EDGE” – This option proposes to create a distinctive landscaped edge to the east side of the highway while discouraging informal pedestrian crossings of US 30 and of the railroad tracks. Existing crosswalks on US 30 with no connectivity to destinations and/or other sidewalks would be eliminated, and a new distinctive planting area is proposed along the east side of the highway.

OPTION 2: “GREEN CORRIDOR” – This option proposes a new sidewalk with a planting strip and continuous fence along the east side of the highway, with enhanced pedestrian crossings at key intersections. Raised planted medians with trees and shrubs are also proposed along the middle of the highway at strategic locations, as well as new planting areas behind the sidewalk along the west side of the highway.

OPTION 3: “COMPLETE STREET” – Option 3 proposes to modify US 30 to meet the recommended roadway cross section established for Major Arterials in the 2011 Transportation System Plan (TSP). This includes widening the west sidewalk to accommodate a new planting strip with street trees, several planted medians at strategic locations, reconstructing the east curb to accommodate a new sidewalk and planting strip with street trees, and re-striping the highway. New pedestrian-scale lighting and furnishings would be proposed at strategic locations. proposed at strategic locations.

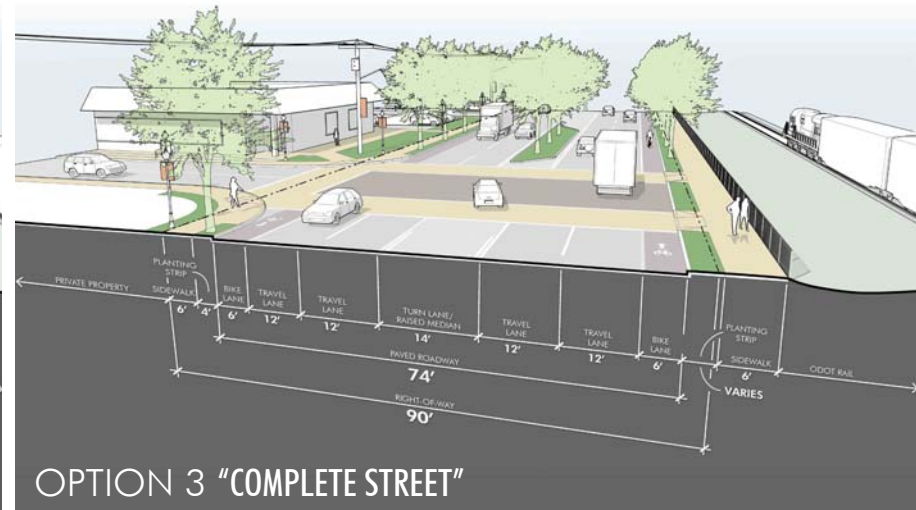
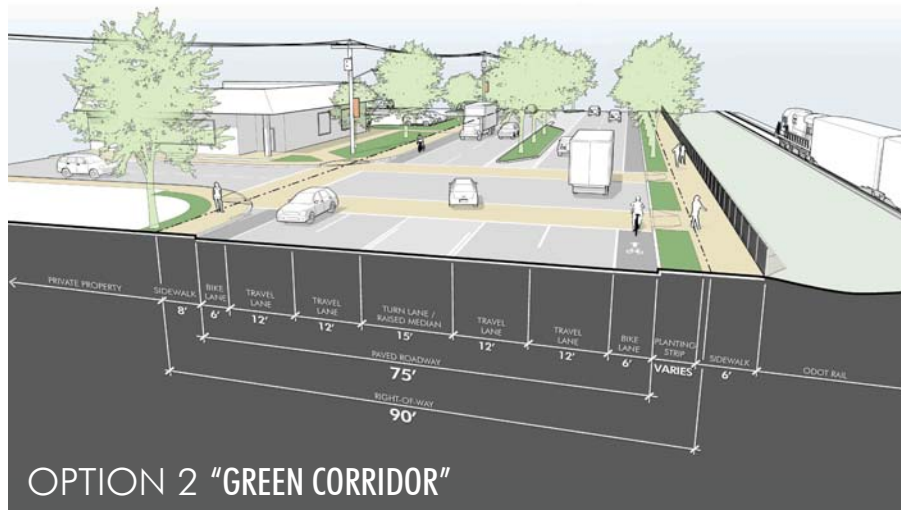
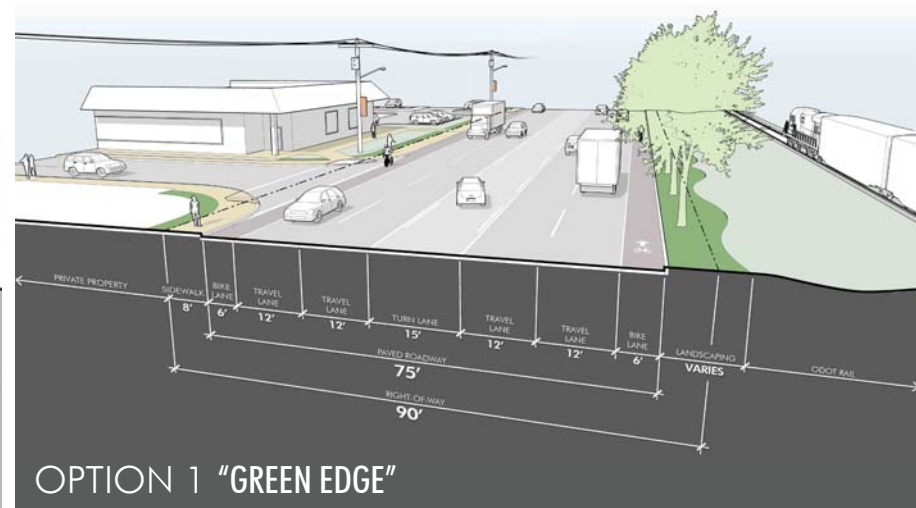
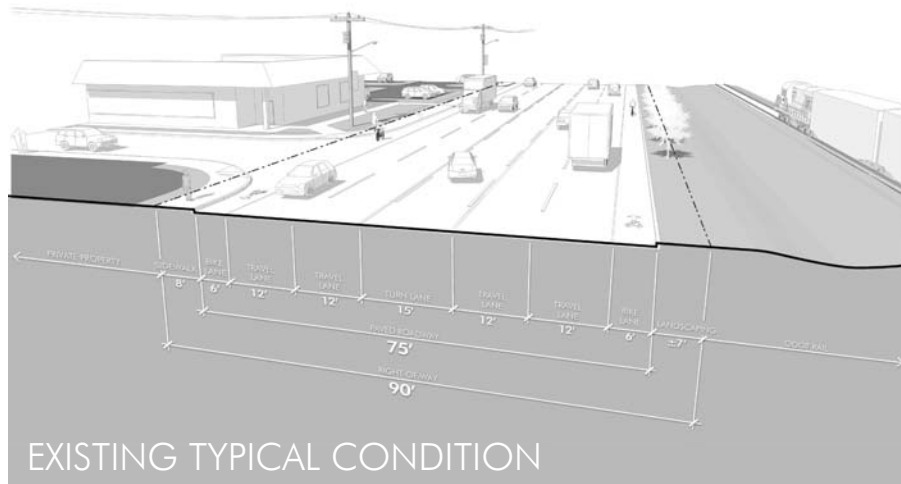


FIGURE B-1 - Existing conditions and three preliminary streetscape options developed for the US 30 corridor.

B. EVALUATION OF DRAFT CORRIDOR DESIGN OPTIONS

TABLE B-1: FEEDBACK REGARDING DESIGN OPTIONS IN THE US 30 CORRIDOR SEGMENT	
TAC	<p><u>RECOMMENDATION:</u> None</p> <p><u>ISSUES OF CONCERN</u></p> <ul style="list-style-type: none"> • Maintenance • Highway Capacity • Fencing/appearance • Transit accommodation
CAC	<p><u>RECOMMENDATION:</u> None, but generally supported concepts</p> <p><u>ISSUES OF CONCERN</u></p> <ul style="list-style-type: none"> • Maintenance • Visibility related to trees in median or planting areas • Access to east side landscaped area
PROPERTY AND BUSINESS OWNERS	<p><u>RECOMMENDATION:</u> None</p> <p><u>ISSUES OF CONCERN</u></p> <ul style="list-style-type: none"> • Potential visibility impacts of median landscaping and street trees • Landscaping maintenance • Location of medians • Visual impacts of overhead utilities • Demand for eastside sidewalk
PLANNING COMMISSION	<p><u>RECOMMENDATION:</u> None but like median; like pathway on RR side in long term</p> <p><u>ISSUES OF CONCERN</u></p> <ul style="list-style-type: none"> • Median landscaping visibility impacts • Safety/use of pathway on RR side • Maintenance • Banner poles, lighting on RR side • Type of landscaping on RR side
CITY COUNCIL	<p><u>RECOMMENDATION:</u> None</p> <p><u>ISSUES OF CONCERN</u></p> <ul style="list-style-type: none"> • Mixed opinions on RR sidewalk • No consensus on median

HOULTON / OLDE TOWNE – WEST OF 13TH STREET

Three alternative streetscape design options have been developed for the one-way streets west of 13th Street along Columbia Boulevard and St. Helens Street, and are shown in Figure B-2. Each option focuses on narrowing the vehicular roadway to the widths recommended in the 2011 TSP in order to improve the safety of pedestrians while creating a sense of place and identity for St. Helens. Each option proposes widened sidewalks, street trees and plantings, site furnishings, and improved pedestrian sidewalks and crossings. Each design option is described in further detail below. The descriptions are followed by a summary of responses from advisory committees, business and property owners, the Planning Commission, and City Council to these options.

OPTION 1: “PEDESTRIAN PROMENADE” – This option proposed widened sidewalks with generous planting strips and/or furnishing zones with street trees on both sides of the street. Bulbouts were proposed at each intersection to significantly shorten the pedestrian crossing distances.

OPTION 2: “GREEN SPINE” – This option proposed an elevated “cycle track” between the parking lane and the sidewalk buffered by planting strips and furnishing zones on either side. New widened sidewalks with planting strips and furnishing zones were proposed on each side of the street, with bulbouts at intersections shortening the pedestrian crossing distance.

OPTION 3: “PARKLETS” – This option proposed back-in angled parking along the south side of Columbia Boulevard and the north side of St. Helens Street. This efficient parking layout allows room for large, open sidewalk areas called “parklets” at each intersection corner and/or in selected mid-block locations, which can be designed to reflect the character and function of the adjacent land use (e.g., outdoor seating and tables adjacent to commercial uses, and landscaped areas with a bench or two adjacent to residential uses). On-street parking areas are shown to have special paving that visually extends the parklet, offering adjacent business owners the opportunity for temporary uses in the on-street parking areas such as outdoor seating or shopping areas. Widened sidewalks with street trees, pedestrian lighting, and furnishing zones are proposed along the other side of the street.

B. EVALUATION OF DRAFT CORRIDOR DESIGN OPTIONS

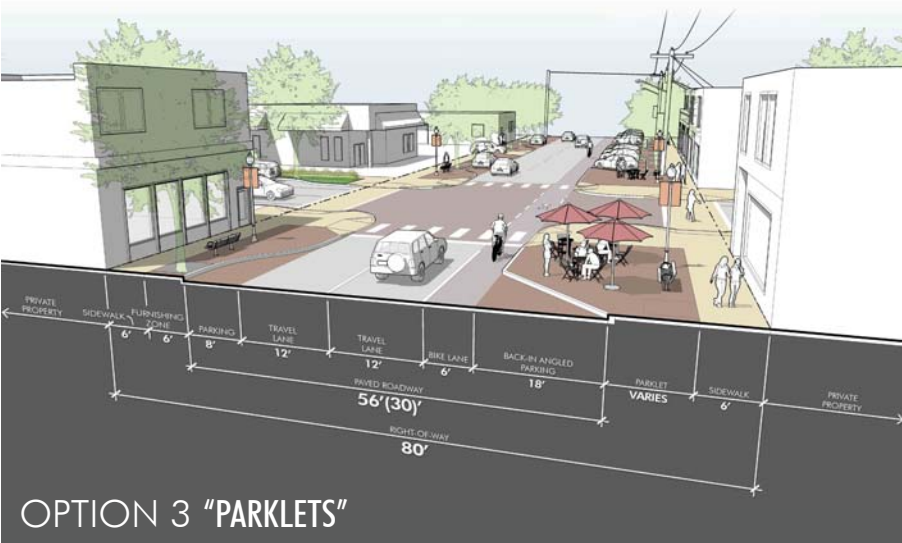
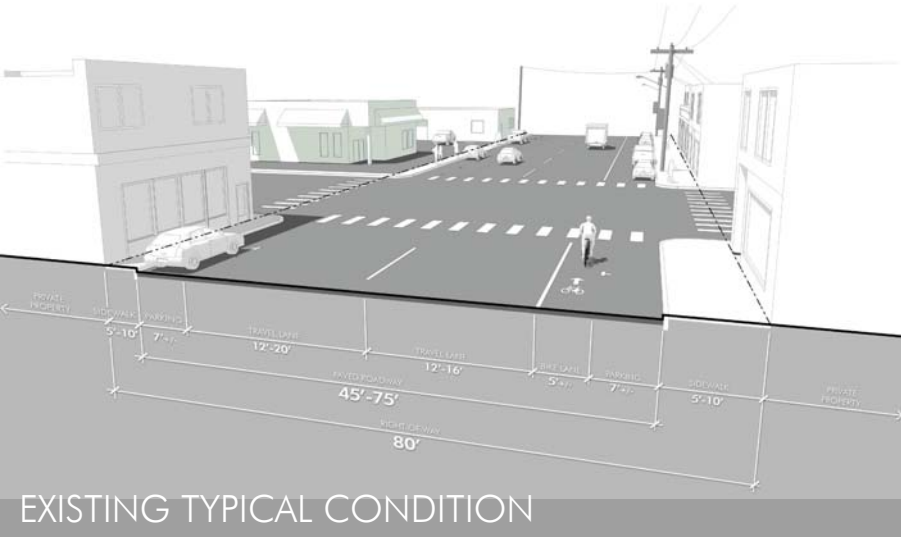


FIGURE B-2 - Existing conditions and three preliminary streetscape options developed for the Houlton/Olde Towne - West of 13th Street

TABLE B-2: FEEDBACK REGARDING DESIGN OPTIONS IN THE HOULTON/OLDE TOWNE – WEST OF 13TH STREET CORRIDOR SEGMENT	
TAC	<p><u>RECOMMENDATION:</u> None</p> <p><u>ISSUES OF CONCERN</u></p> <ul style="list-style-type: none"> • Cost/benefit of bicycle facilities • Viability of street trees • Parking impacts • Wayfinding, freight movement
CAC	<p><u>RECOMMENDATION:</u> Parklets or Green Spine on Columbia; Promenade or Green Spine on St. Helens</p> <p><u>ISSUES OF CONCERN</u></p> <ul style="list-style-type: none"> • Bicycle and pedestrian safety • Difficulty with reverse angled parking • Flexibility, location of parklets
PROPERTY AND BUSINESS OWNERS	<p><u>RECOMMENDATION:</u> None</p> <p><u>ISSUES OF CONCERN</u></p> <ul style="list-style-type: none"> • Greater benefit to businesses immediately adjacent to parklets • Accommodating truck traffic with narrow lanes and bulbouts • Difficulty of using reverse angle parking • Enough room for gateway
PLANNING COMMISSION	<p><u>RECOMMENDATION:</u> Parklets on Columbia; Promenade or Green Spine on St. Helens</p> <p><u>ISSUES OF CONCERN</u></p> <ul style="list-style-type: none"> • Bicycle and pedestrian safety; bike/vehicle conflicts • Flexibility, location of parklets • Location of diagonal parking
CITY COUNCIL	<p><u>RECOMMENDATION:</u> Parklets</p> <p><u>ISSUES OF CONCERN</u></p> <ul style="list-style-type: none"> • Differing opinions on reverse angle vs. traditional diagonal parking

HOULTON / OLDE TOWNE – EAST OF 13TH STREET

Three alternative streetscape design options have been developed for the two-way portion of Columbia Boulevard east of 13th Street, and are shown in Figure B-3. Like the corridor segment west of 13th Street, each concept focuses on narrowing the vehicular roadway to the widths recommended in the 2011 TSP in order to improve pedestrian safety while creating a sense of place and identity. Each option proposes widened sidewalks, street trees and plantings, site furnishings, and improved pedestrian sidewalks and crossings. Each concept is explained in further detail below. The descriptions are followed by a summary of responses from advisory committees, business and property owners, the Planning Commission, and City Council to these options.

(Note: These concepts do not apply to 1st Street between Columbia Boulevard and St. Helens Street, which has a unique configuration requiring special attention. However, they could be applied with some modifications to the section of St. Helens Street between 1st Street and 4th Street.)

OPTION 1: “PEDESTRIAN PROMENADE” – This option proposes widened sidewalks with generous planting strips and/or furnishing zones with street trees on both sides of the street. Bulbouts are proposed at each intersection to significantly shorten the pedestrian crossing distances.

OPTION 2: “BOULEVARD” – This option proposes raised landscaped medians that separate the east- and west-bound lanes. Other improvements include widened sidewalks with planting strips, site furnishings, street trees, as well as bulbouts and pedestrian refuge islands.

OPTION 3: “PARKLETS” – This option proposes parklets similar to that of Streetscape Option 3 for the corridor segment west of 13th Street, above. However, due to the added bike 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.

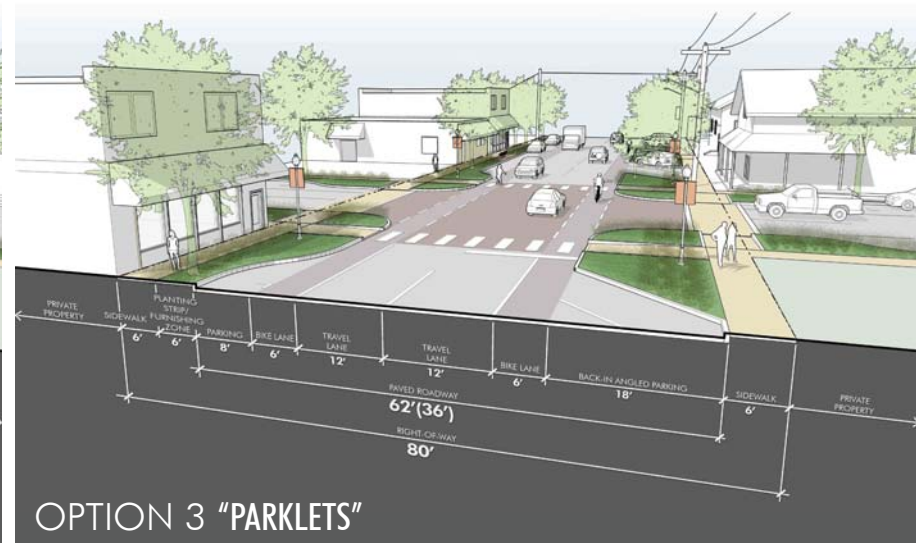
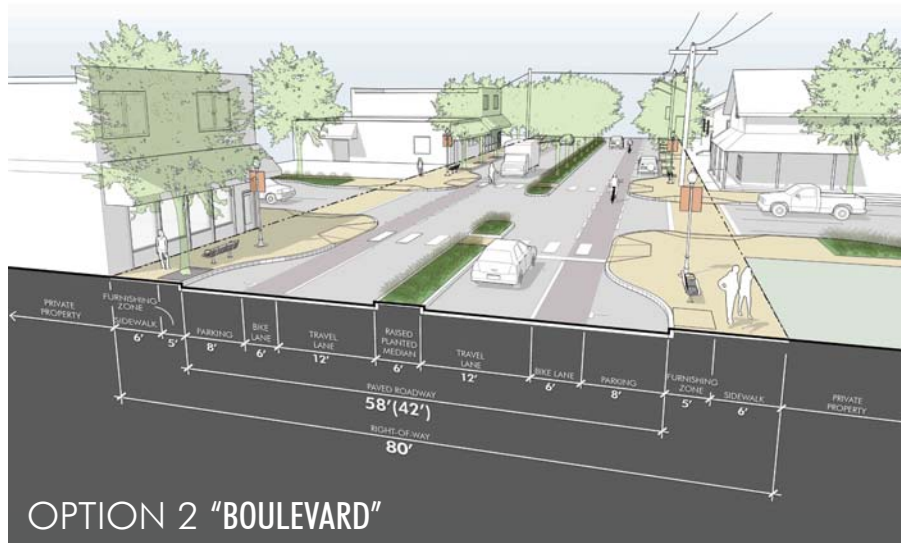
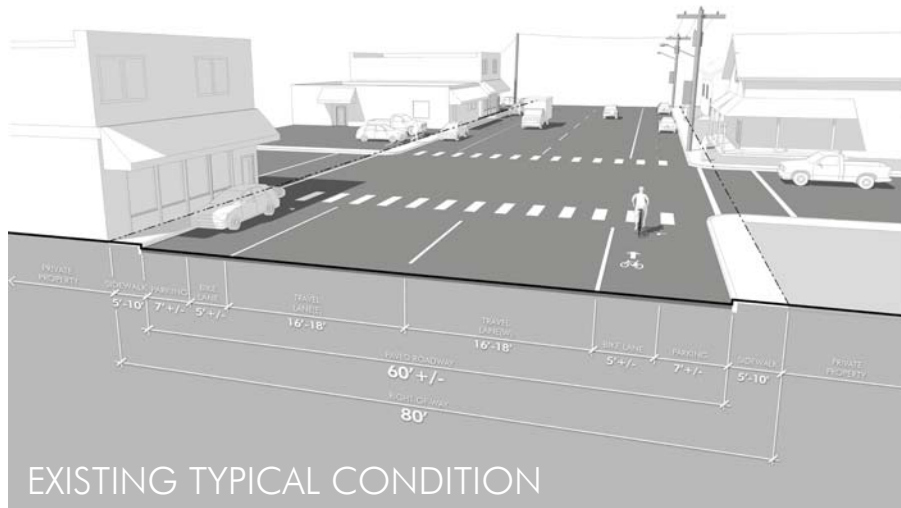


FIGURE B-3 - Existing conditions and three preliminary streetscape options developed for the Houlton/Olde Towne - East of 13th Street

B. EVALUATION OF DRAFT CORRIDOR DESIGN OPTIONS

TABLE B-3: FEEDBACK REGARDING DESIGN OPTIONS IN THE HOULTON/OLDE TOWNE – EAST OF 13TH STREET CORRIDOR SEGMENT	
TAC	<p><u>RECOMMENDATION:</u> None</p> <p><u>ISSUES OF CONCERN</u></p> <ul style="list-style-type: none"> • Difficulty with reverse angled parking • Mini-roundabout operations
CAC	<p><u>RECOMMENDATION:</u> Green Spine or Parklets</p> <p><u>ISSUES OF CONCERN</u></p> <ul style="list-style-type: none"> • Median is overkill • Loss of on-street parking • Location, design of gateway on 1st Street
PROPERTY AND BUSINESS OWNERS	<p><u>RECOMMENDATION:</u> None</p> <p><u>ISSUES OF CONCERN</u></p> <ul style="list-style-type: none"> • Location of gateway • Grade-separated rail crossings • Improving appearance of streets in order to improve area's vitality
PLANNING COMMISSION	<p><u>RECOMMENDATION:</u> Pedestrian Promenade</p> <p><u>ISSUES OF CONCERN</u></p> <ul style="list-style-type: none"> • Median is overkill • Don't need diagonal parking in this area • Bicycle safety (consider buffered bike lanes)
CITY COUNCIL	<p><u>RECOMMENDATION:</u> Parklets</p> <p><u>ISSUES OF CONCERN</u></p> <ul style="list-style-type: none"> • Special opportunity area at end of Columbia/1st – concern about open space there; want trail connection

Rationale for Recommended Design Options

Following is a summary of the rationale for selecting each corridor segment design option.

US 30 SEGMENT

- Selective application of raised median treatment promotes City and ODOT safety and access management objectives while recognizing and respecting property access needs
- Final Design of median location and content can address site-specific considerations such as individual property access, business visibility and maintenance issues
- Consistent with state design standards and guidelines
- Improves the visual appearance of the corridor to a greater degree than the non-median option
- Balances goals for improvements to appearance with cost and financial viability
- Short-term implementation represents lower cost solution; long-term phases will not be undertaken if not financially feasible
- Improves bicycle and pedestrian connectivity and safety in both the short- and long-term
- Equally consistent or superior in satisfying project goals and objectives in a financially feasible manner as compared to other options
- Generally consistent with community and stakeholder feedback to date; anticipated property-specific issues of can be addressed and resolved through the detailed design of specific proposed improvements
- Improvements shown along the east side of US 30 advance long-sought safety and aesthetic changes that screen and protect the adjacent railroad corridor
- Improvement recommendations can be implemented in phases as resources and timing allow and/or as property redevelopment occurs

HOULTON/OLDE TOWNE – WEST OF 13TH STREET

- Designs for each street best meet land use conditions and goals
- Improves the visual appearance of the corridor segment to an equal or greater degree than other options; creates a long-sought gateway
- Deemed best option to enhance economic viability compared to other options (particularly on Columbia Blvd)
- Represents mid-range or lower cost alternative compared to other options
- Key elements (e.g., parklets) can be implemented in a temporary manner at relatively low cost and in a shorter timeframe, allowing the community to “try on” these options
- Improves bicycle and pedestrian connectivity and safety with a balanced approach to meeting these needs and those of motor vehicles

B. EVALUATION OF DRAFT CORRIDOR DESIGN OPTIONS

- Equally consistent with all other project goals and objectives in comparison to other options
- Most consistent with community and stakeholder feedback to date, compared to other options
- Improvement recommendations can be implemented in phases as resources and timing allow and/or as property redevelopment occurs

HOULTON/OLDE TOWNE – EAST OF 13TH STREET

- Designs for each street best meet land use conditions and goals
- Improves the visual appearance of the corridor segment to an equal or greater degree than other options
- Represents lower cost alternative compared to other options
- Maximizes space for pedestrians throughout the corridor compared to other options
- Improves bicycle and pedestrian connectivity and safety with a balanced approach to meeting these needs and those of drivers
- Equally consistent with all other project goals and objectives in comparison to other options
- Most consistent with community and stakeholder feedback to date, compared to other options
- Improvement recommendations can be implemented in phases as resources and timing allow and/or as property redevelopment occurs

C. RECOMMENDED CORRIDOR DESIGN OPTIONS

US 30 Corridor Segment

OVERALL APPROACH

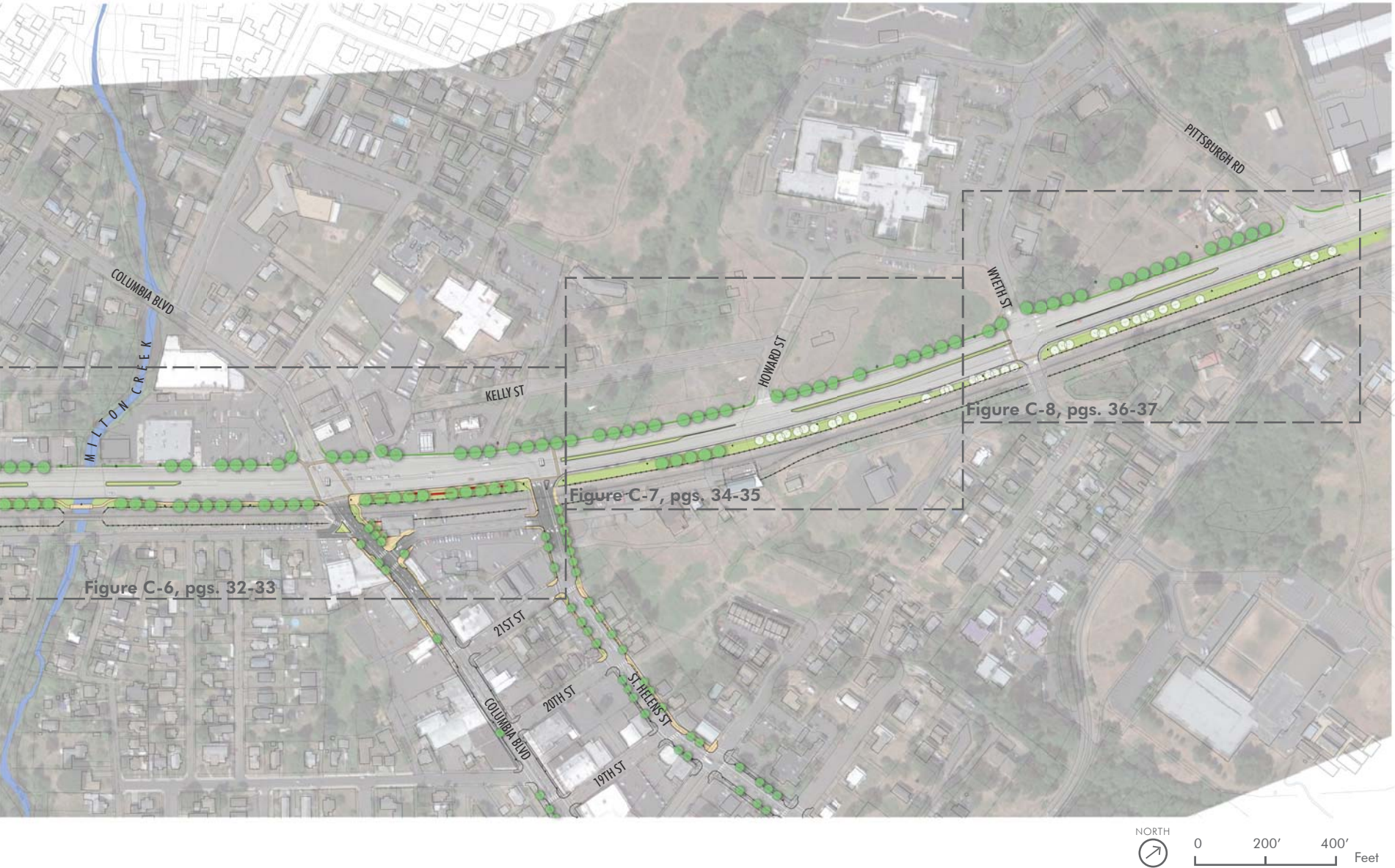
The proposed improvements along the US 30 highway corridor between Gable Road and Pittsburgh Road strive to improve safety while enhancing the character of the roadway, better creating a sense of place, and bolstering economic viability. Through the use of landscape plantings, street trees, landscaped roadway medians, and improved pedestrian sidewalks and crossings, the recommended design creates a Green Corridor and attempts to “humanize” this vehicle-dominated environment and create a civic identity befitting St. Helens. The following goals and strategies for the recommended design of the US 30 corridor segment are summarized below.

1. IMPROVE PEDESTRIAN SAFETY. The recommended design proposes to retrofit the US 30 corridor with a number of traffic calming features and elements intended to facilitate pedestrian movement without impacting vehicular function. These improvements include new crosswalk striping, ADA-accessible curb ramps, pedestrian refuge median islands, and enhanced crosswalk signals. Additionally new fencing along each side of railroad corridor will help discourage informal crossings of the railroad tracks.
2. IMPROVE CONNECTIVITY. Several design features improve pedestrian and bicycle connectivity along the US 30 corridor, and between the corridor and nearby neighborhoods and destinations. New sidewalks along the east side of highway provide additional accessible routes for pedestrians to access and move along the corridor, tying into existing sidewalks at most intersections. Additionally, a new pedestrian bridge at Milton Creek provides an important link for pedestrians moving along the east side of the US 30 corridor.
3. IMPROVE AESTHETICS AND SENSE OF PLACE. New street trees, planted highway medians, and planting areas on each side of the highway work together to reinforce US 30 as a Green Corridor, breaking down the scale of this wide, intimidating highway arterial to one that is attractive, inviting and accessible to pedestrians. Highly visible gateway elements at the intersections of Gable Road and Columbia Boulevard mark key transitions and reinforce civic identity. Additionally, banner poles distributed at equal intervals along each side of the corridor add festiveness and help to unify the corridor.

C. RECOMMENDED CORRIDOR DESIGN OPTIONS: US 30 CORRIDOR SEGMENT



FIGURE C-1 - US 30 Corridor Segment - Proposed Improvements and Plan Keymap



C. RECOMMENDED CORRIDOR DESIGN OPTIONS: US 30 CORRIDOR SEGMENT

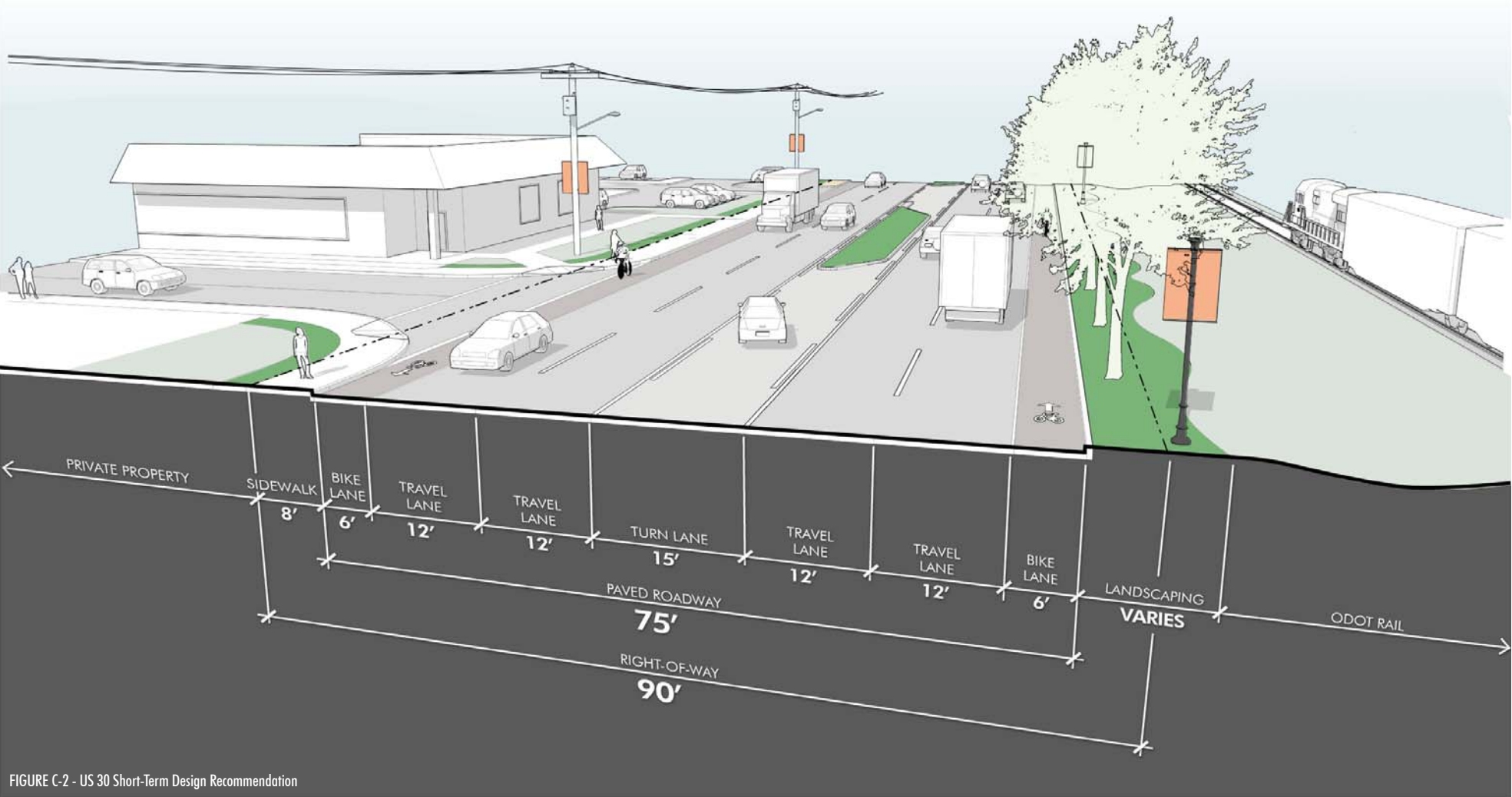


FIGURE C-2 - US 30 Short-Term Design Recommendation

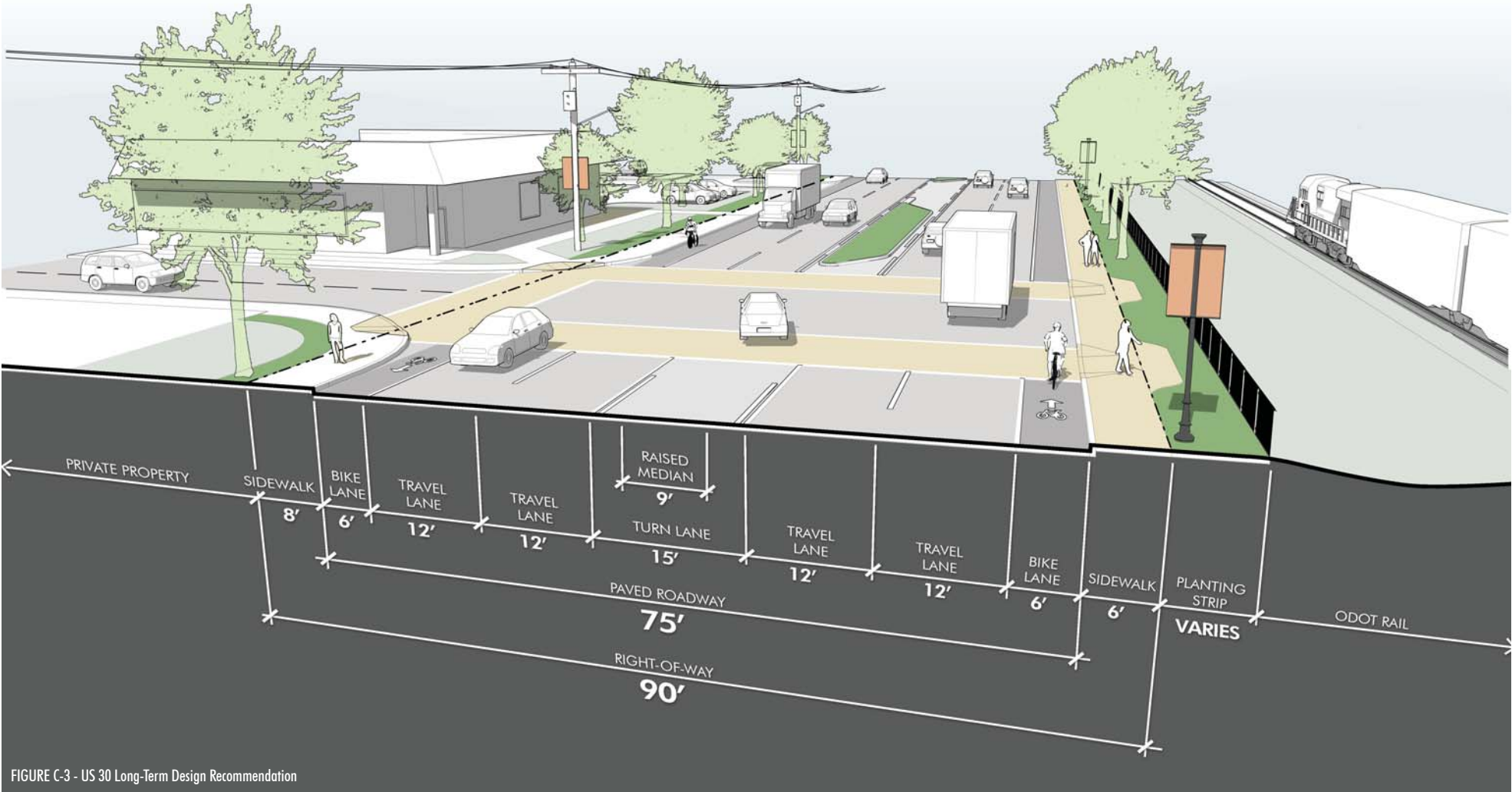


FIGURE C-3 - US 30 Long-Term Design Recommendation

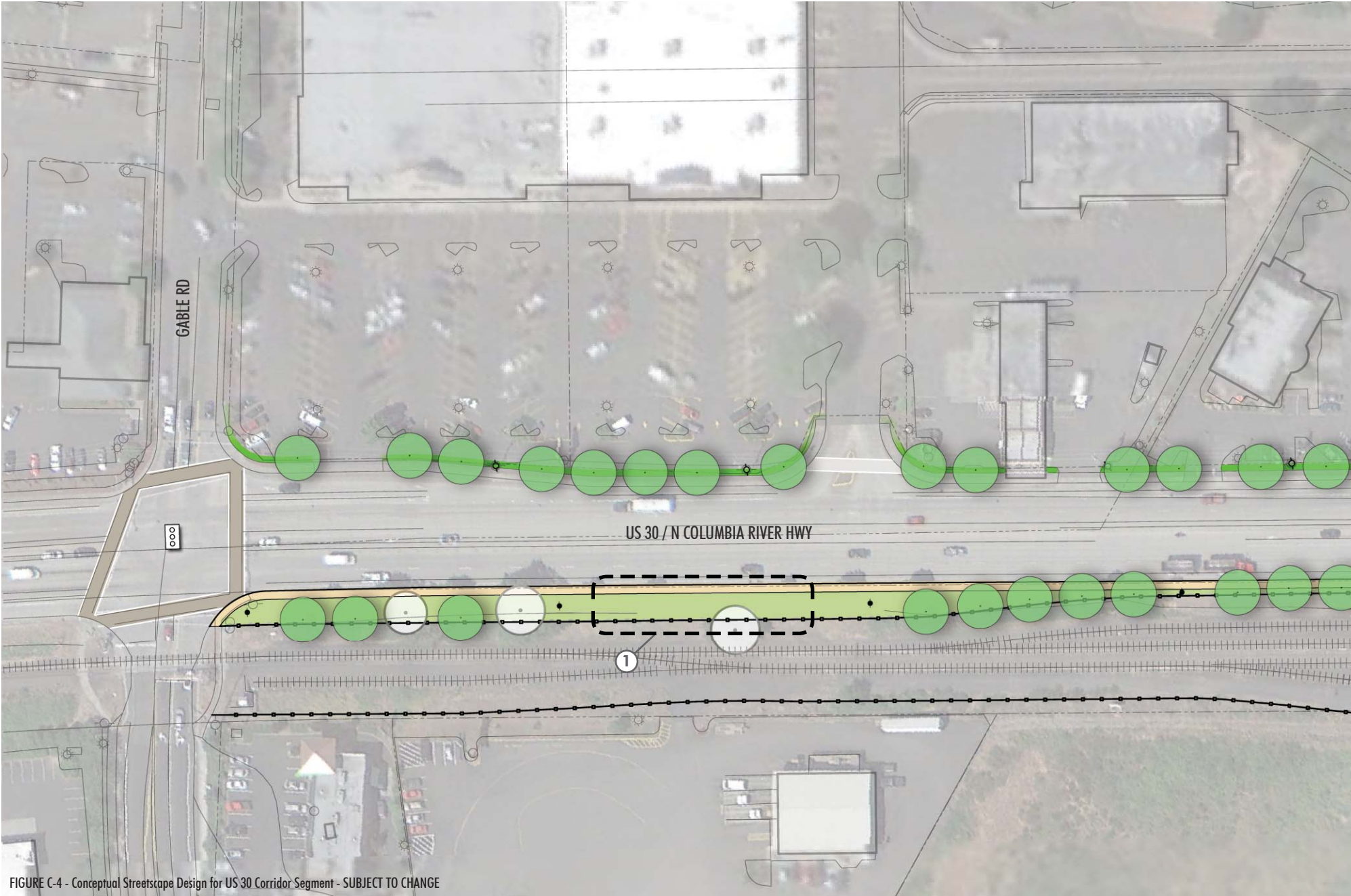
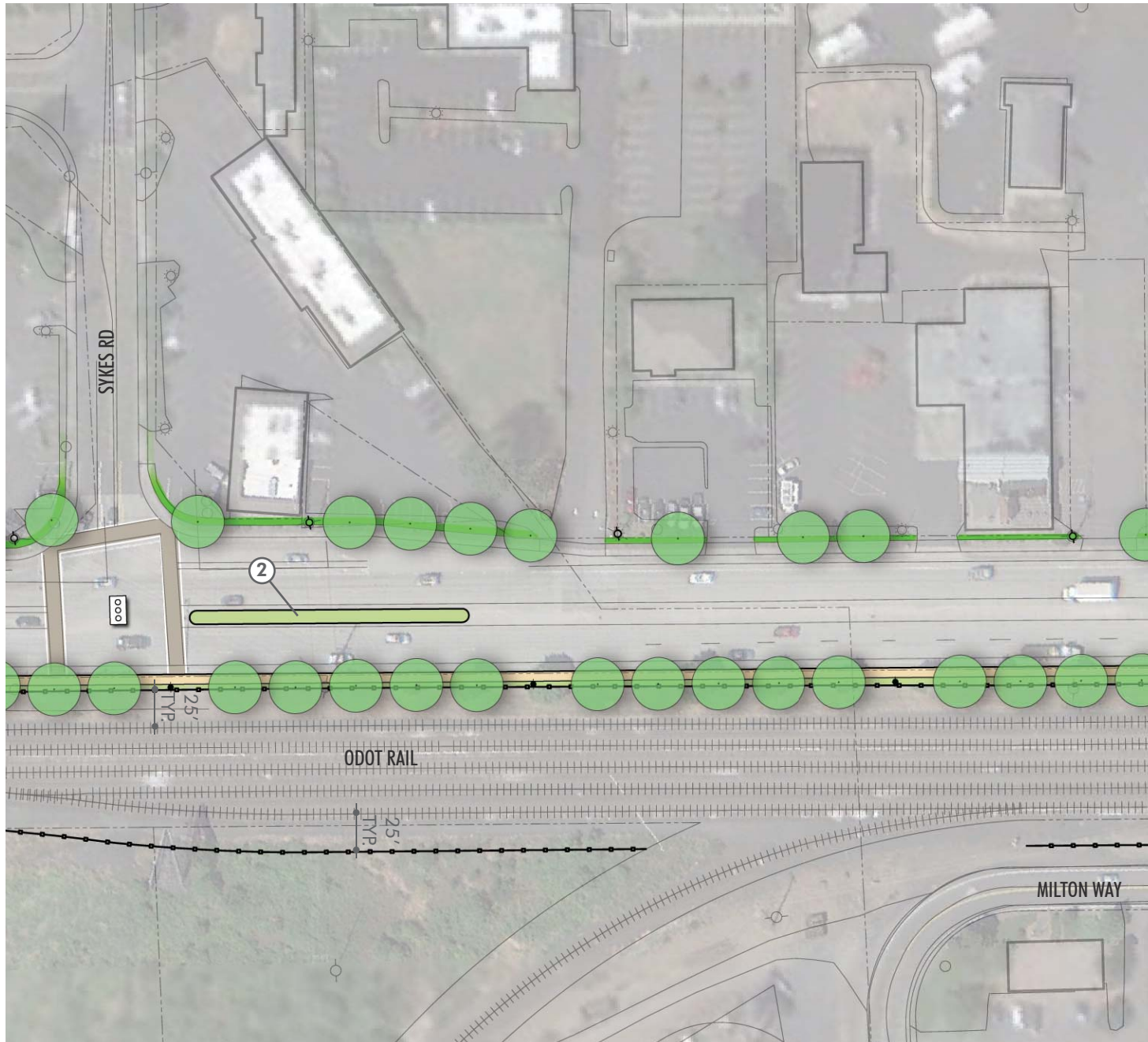


FIGURE C-4 - Conceptual Streetscape Design for US 30 Corridor Segment - SUBJECT TO CHANGE



LEGEND: US 30 CORRIDOR

- NEW 6' SIDEWALK *
- NEW LANDSCAPE AREA
- PRIVATE PROPERTY LANDSCAPE IMPROVEMENTS
- INTERSECTION CROSSWALK PAVING ENHANCEMENTS *
- NEW CROSSWALK STRIPING
- NEW 5' HT. FENCE *
- NEW BANNER POLE
- NEW BANNER ON EXISTING UTILITY / POLE
- NEW TREE *
- EXISTING TREE TO REMAIN
- EXISTING SIGNALIZED INTERSECTION
- FUTURE SIGNALIZED INTERSECTION
- SPECIAL OPPORTUNITY AREA
- CONCEPTUAL INTERSECTION ENHANCEMENT
- * DENOTES LONG-TERM IMPROVEMENTS

KEY NOTES

- ① FUTURE BUS STOP
- ② PLANTED MEDIAN - SEE PG. 40



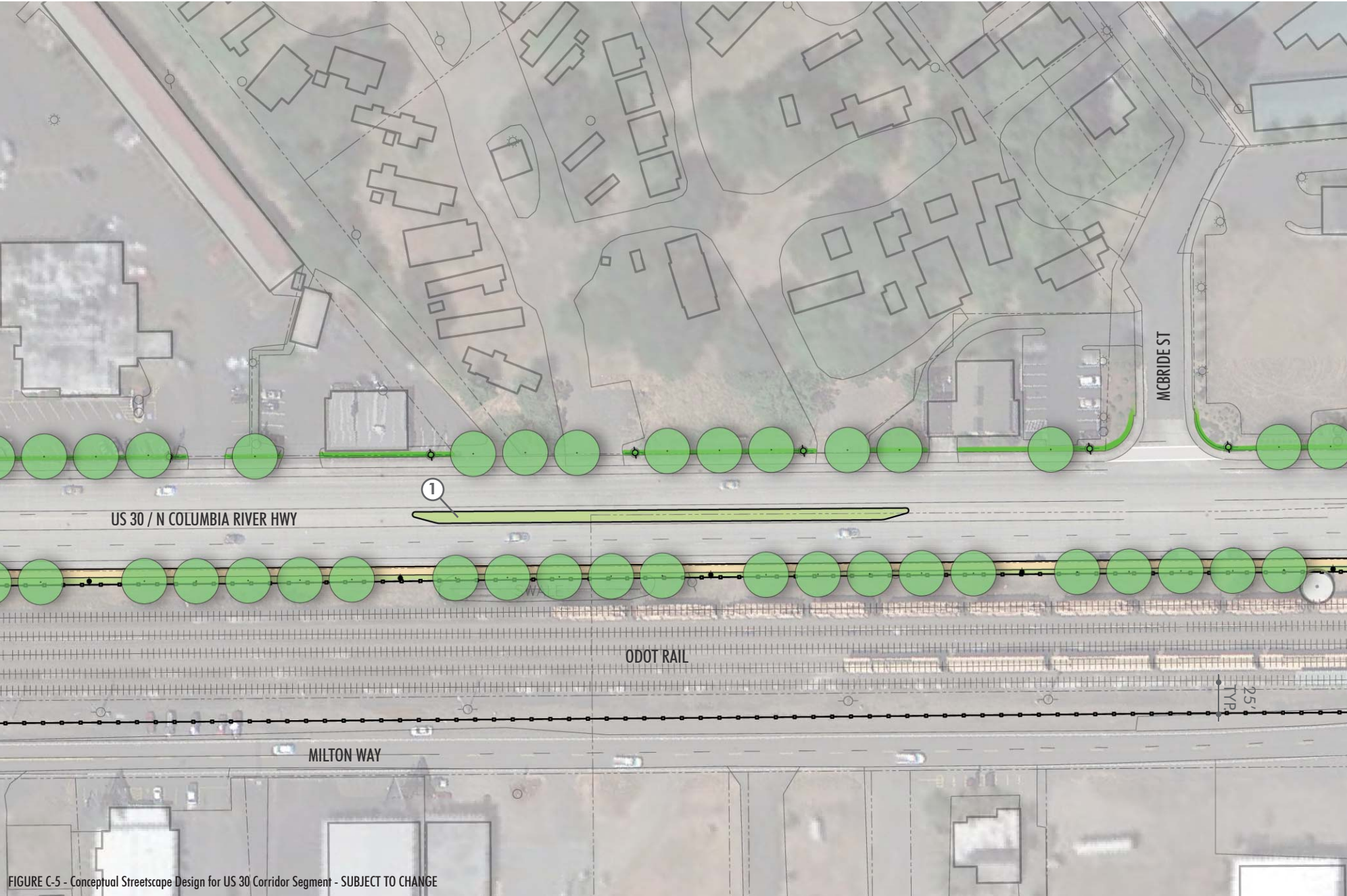
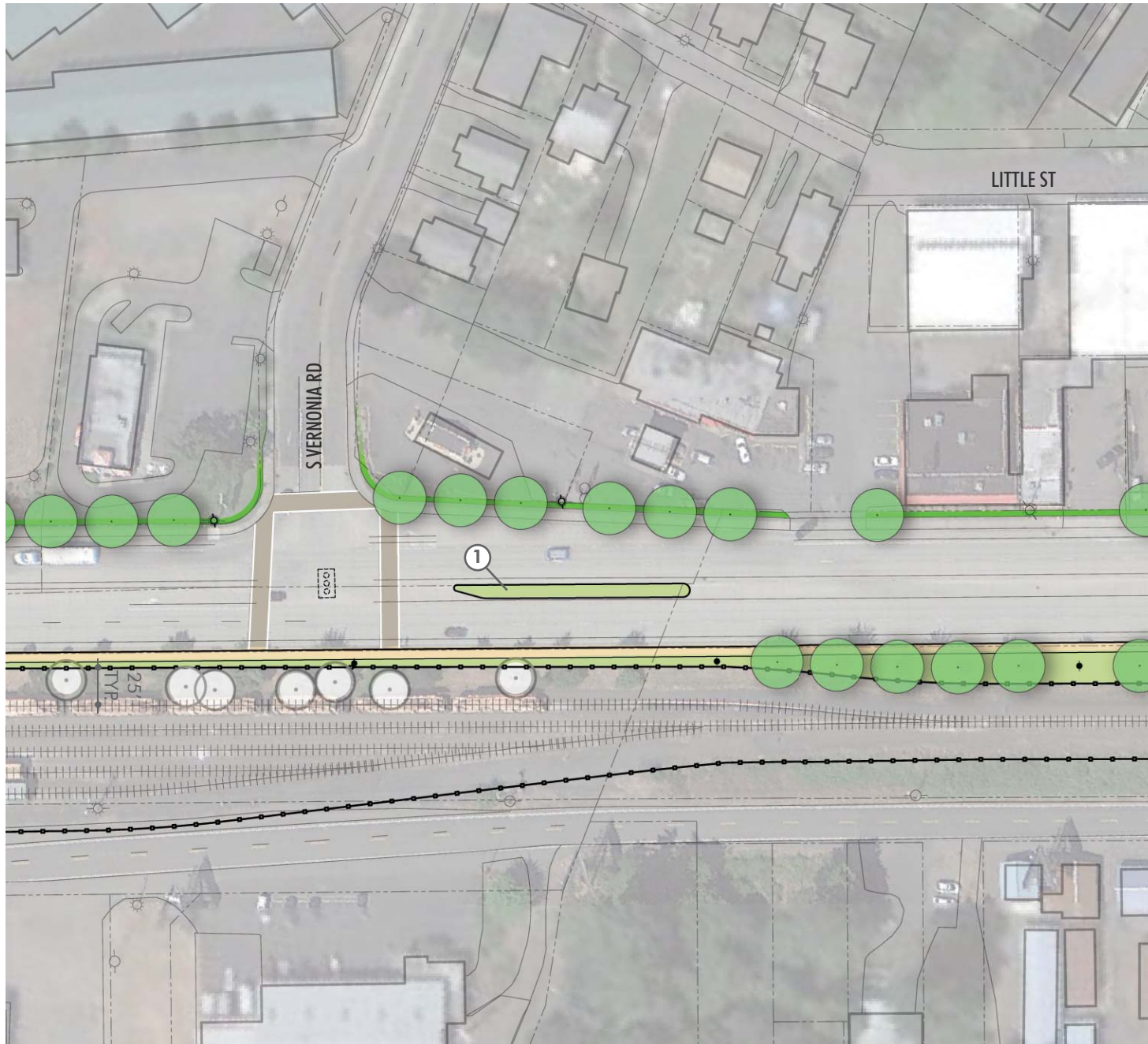


FIGURE C-5 - Conceptual Streetscape Design for US 30 Corridor Segment - SUBJECT TO CHANGE



LEGEND: US 30 CORRIDOR

- NEW 6' SIDEWALK *
- NEW LANDSCAPE AREA
- PRIVATE PROPERTY LANDSCAPE IMPROVEMENTS
- INTERSECTION CROSSWALK PAVING ENHANCEMENTS *
- NEW CROSSWALK STRIPING
- NEW 5' HT. FENCE *
- NEW BANNER POLE
- NEW BANNER ON EXISTING UTILITY / POLE
- NEW TREE *
- EXISTING TREE TO REMAIN
- EXISTING SIGNALIZED INTERSECTION
- FUTURE SIGNALIZED INTERSECTION
- SPECIAL OPPORTUNITY AREA
- CONCEPTUAL INTERSECTION ENHANCEMENT
- * DENOTES LONG-TERM IMPROVEMENTS

KEY NOTES

- ① PLANTED MEDIAN - SEE PG. 40



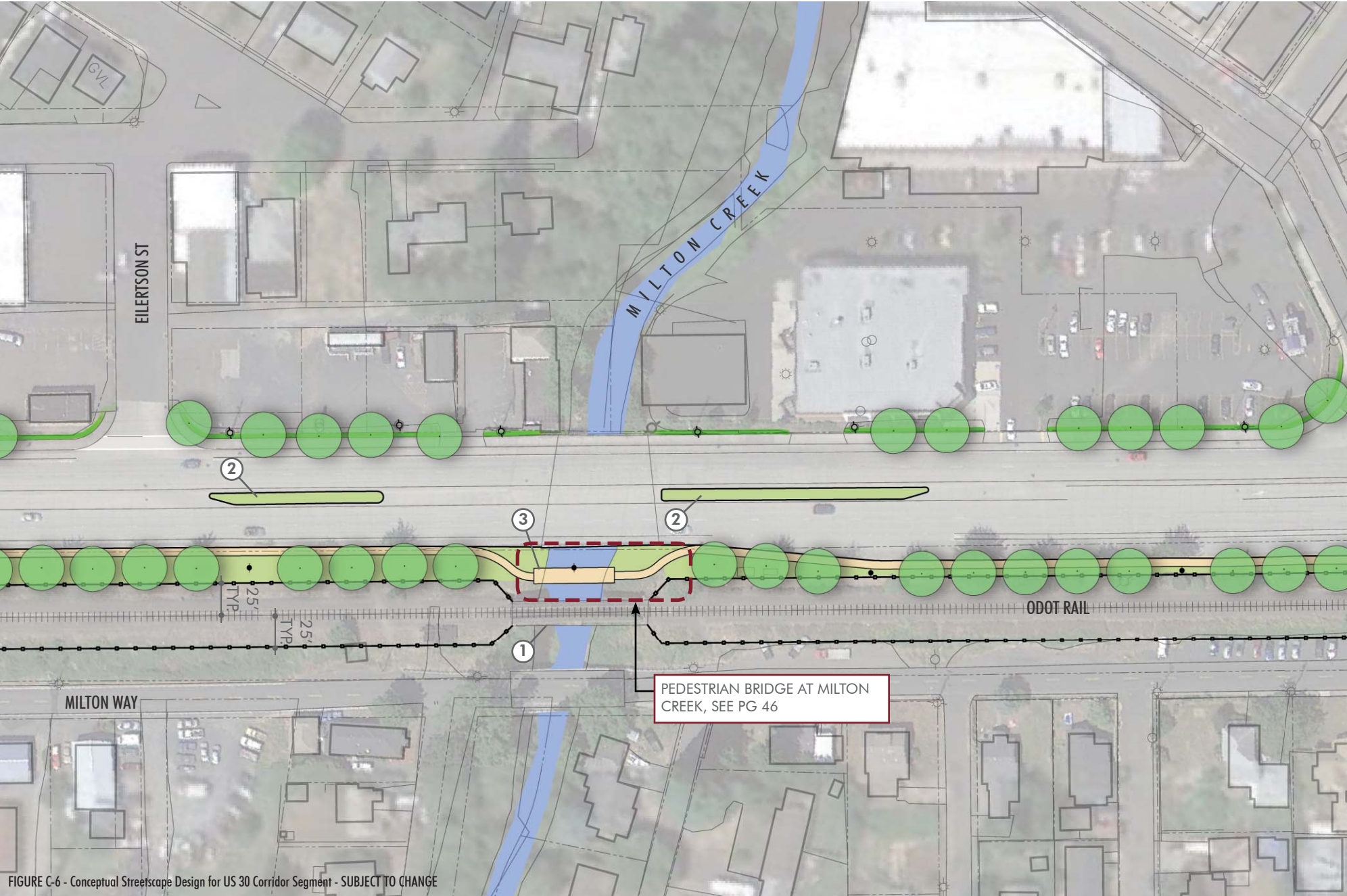
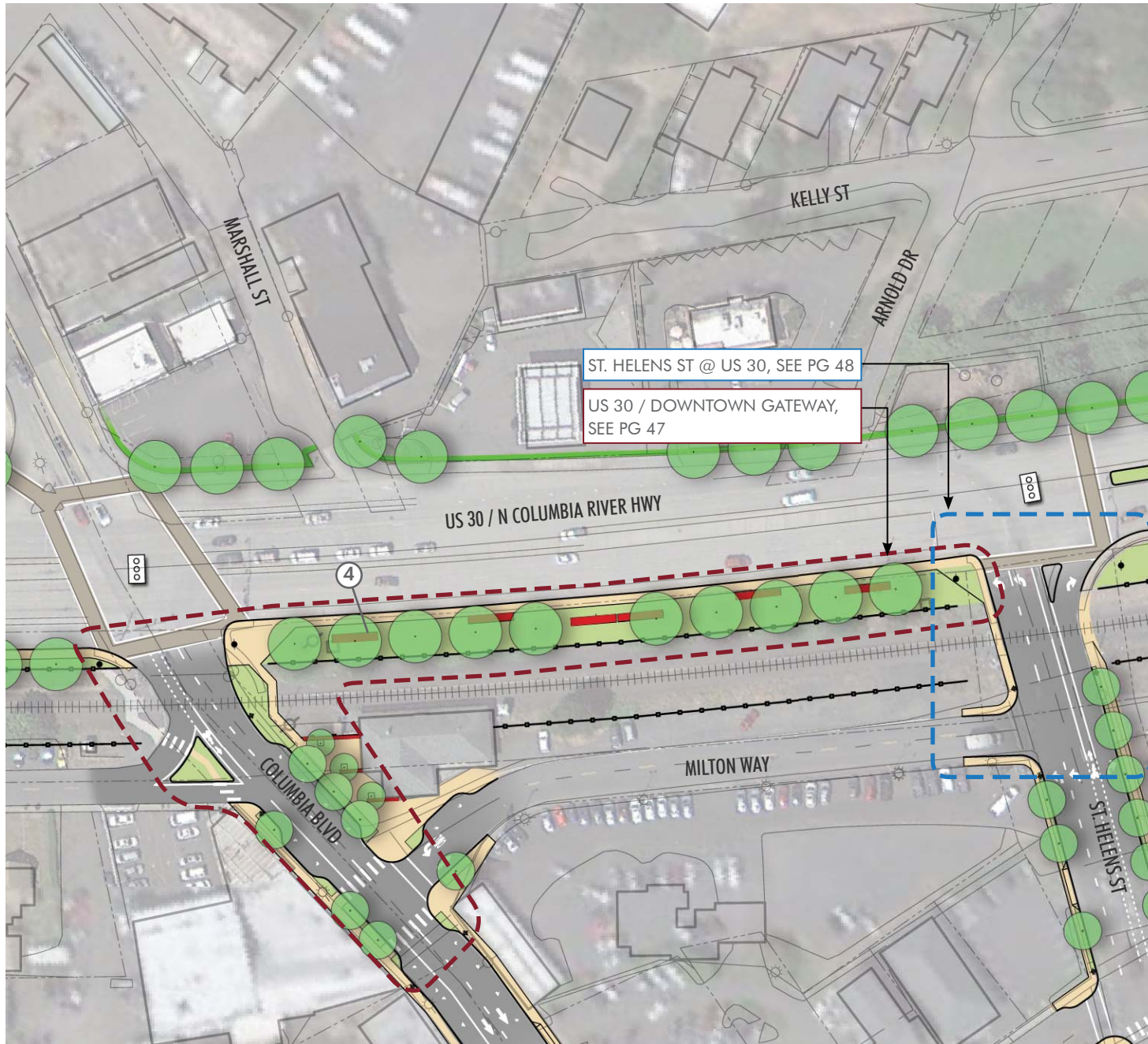


FIGURE C-6 - Conceptual Streetscape Design for US 30 Corridor Segment - SUBJECT TO CHANGE



LEGEND: US 30 CORRIDOR

- NEW 6' SIDEWALK *
- NEW LANDSCAPE AREA
- PRIVATE PROPERTY LANDSCAPE IMPROVEMENTS
- INTERSECTION CROSSWALK PAVING ENHANCEMENTS *
- NEW CROSSWALK STRIPING
- NEW 5' HT. FENCE *
- NEW BANNER POLE
- NEW BANNER ON EXISTING UTILITY / POLE
- NEW TREE *
- EXISTING TREE TO REMAIN
- EXISTING SIGNALIZED INTERSECTION
- FUTURE SIGNALIZED INTERSECTION
- SPECIAL OPPORTUNITY AREA
- CONCEPTUAL INTERSECTION ENHANCEMENT
- * DENOTES LONG-TERM IMPROVEMENTS

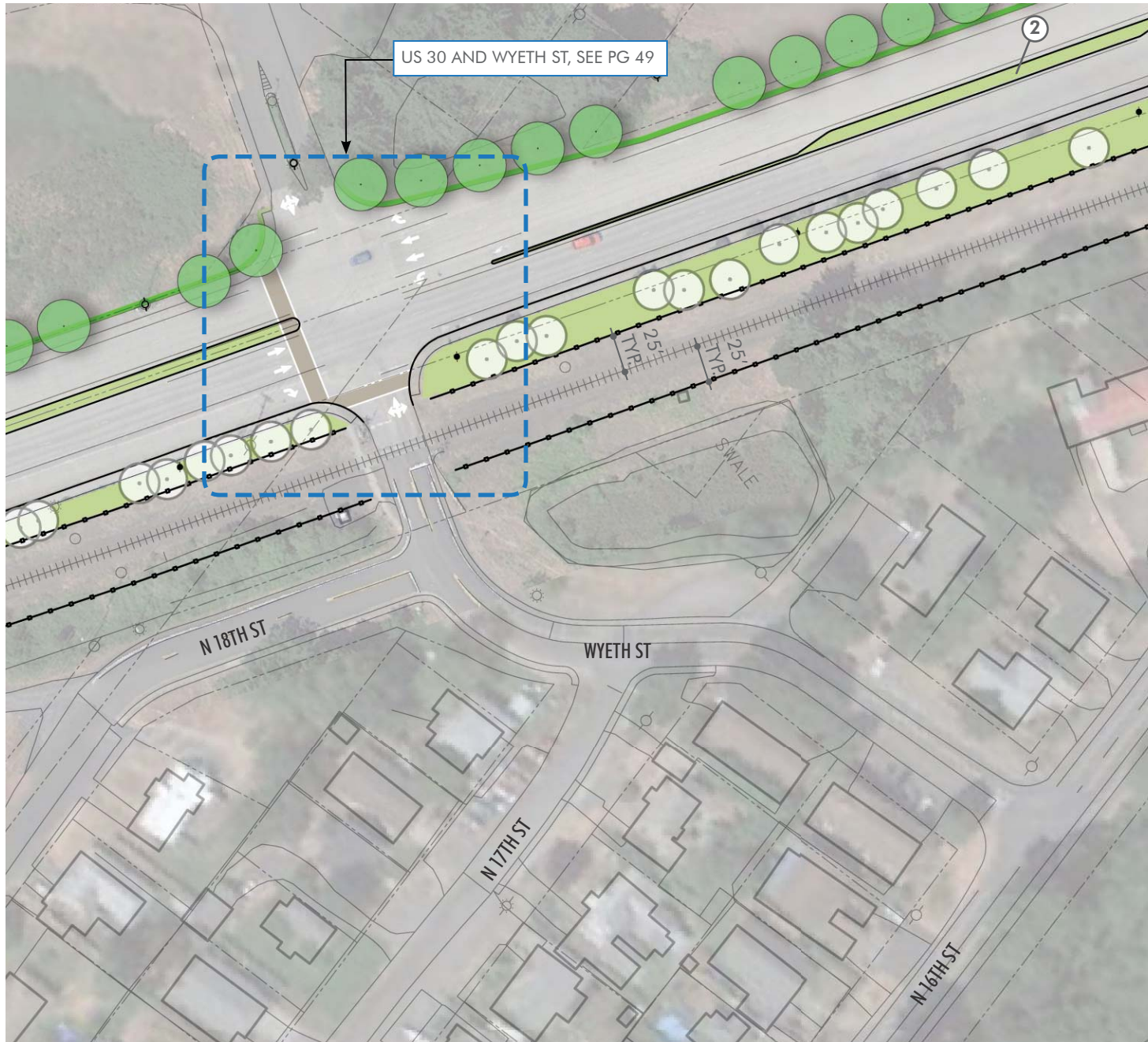
KEY NOTES

- ① EXISTING TRAIN TRESTLE
- ② PLANTED MEDIAN, SEE PG 40
- ③ NEW PEDESTRIAN BRIDGE AT MILTON CREEK
- ④ US 30 GATEWAY SCULPTURAL ELEMENTS





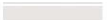













FIGURE C-7 - Conceptual Streetscape Design for US 30 Corridor Segment - SUBJECT TO CHANGE



LEGEND: US 30 CORRIDOR

-  NEW 6' SIDEWALK *
-  NEW LANDSCAPE AREA
-  PRIVATE PROPERTY LANDSCAPE IMPROVEMENTS
-  INTERSECTION CROSSWALK PAVING ENHANCEMENTS *
-  NEW CROSSWALK STRIPING
-  NEW 5' HT. FENCE *
-  NEW BANNER POLE
-  NEW BANNER ON EXISTING UTILITY / POLE
-  NEW TREE *
-  EXISTING TREE TO REMAIN
-  EXISTING SIGNALIZED INTERSECTION
-  FUTURE SIGNALIZED INTERSECTION
-  SPECIAL OPPORTUNITY AREA
-  CONCEPTUAL INTERSECTION ENHANCEMENT
- * DENOTES LONG-TERM IMPROVEMENTS

KEY NOTES

- ① FUTURE BUS STOP
- ② PLANTED MEDIAN, SEE PG 40





FIGURE C-8 - Conceptual Streetscape Design for US 30 Corridor Segment - SUBJECT TO CHANGE



LEGEND: US 30 CORRIDOR

- NEW 6' SIDEWALK *
 - NEW LANDSCAPE AREA
 - PRIVATE PROPERTY LANDSCAPE IMPROVEMENTS
 - INTERSECTION CROSSWALK PAVING ENHANCEMENTS *
 - NEW CROSSWALK STRIPING
 - NEW 5' HT. FENCE *
 - NEW BANNER POLE
 - NEW BANNER ON EXISTING UTILITY / POLE
 - NEW TREE *
 - EXISTING TREE TO REMAIN
 - EXISTING SIGNALIZED INTERSECTION
 - FUTURE SIGNALIZED INTERSECTION
 - SPECIAL OPPORTUNITY AREA
 - CONCEPTUAL INTERSECTION ENHANCEMENT
- * DENOTES LONG-TERM IMPROVEMENTS

KEY NOTES

- 1 PLANTED MEDIAN, SEE PG 40



PLANS ARE CONCEPTUAL AND SUBJECT TO CHANGE

C. RECOMMENDED CORRIDOR DESIGN OPTIONS: US 30 CORRIDOR SEGMENT

STREETSCAPE DESIGN CONCEPTS

Specific site responses to the goals listed above, and to the physical and environmental influences on the corridor are explained in further detail below.

1. **TRAFFIC CALMING FEATURES.** An inviting pedestrian environment on US 30 relies on creating routes for pedestrians that are safe, accessible, and can help calm traffic. Traffic calming measures like enhanced crosswalks and planted medians slow traffic and encourage awareness of drivers to their surroundings. The following features are proposed along US 30:
 - Several enhanced east-west pedestrian crosswalks are proposed at key intersections along US 30, visually breaking the monotony of asphalt streets and creating a more inviting pedestrian route. These crosswalks could feature special paving materials, articulated scoring patterns, or integral concrete colors, and can significantly enhance the pedestrian experience along the US 30 corridor. They also must include some kind of highly visible striping, consistent with state design standards for the highway. Crosswalk enhancements are proposed at the intersections of Gable Road, Columbia Boulevard, St. Helens Street (north side only), Wyeth Street (south side only) and Pittsburgh Road (south side only). New E-W crosswalks are proposed at Vernonia Road and Sykes



FIGURE C-9 - Example of a concrete crosswalk on an asphalt roadway. This crosswalk features stamped, colored concrete, which creates a visual and physical texture to alert drivers to the presence of pedestrians.



FIGURE C-10 - Example of a Pedestrian Refuge Island with Crosswalk Striping



FIGURE C-11 - Example of a raised planted median on an arterial roadway with plantings, trees, light poles with banners, and a perimeter maintenance walkway - Ottawa, Canada

Road with the anticipated future new pedestrian sidewalk and intersection signalization.

- Several improved north-south pedestrian crosswalks are proposed at roadway intersections and major driveway entrances along the west side of US 30 where few, if any, crosswalk amenities exist. New striping and ADA-accessible curb ramps are proposed at the US 30 entrance to Safeway, and the intersections at McBride Street, Eilertson Street, Marshall Street, and Howard Street.
- New planted roadway medians are proposed at strategic locations, 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). It should also be noted that one or more breaks in the conceptual median area shown between Milton Creek and S 22nd Street may be sought as properties west of US 30 redevelop in the future.

Generally speaking, ODOT will require the following for raised planted medians:

- The roadway cross section shall include a 2' shy distance between the median curb and adjacent travel lane.

C. RECOMMENDED CORRIDOR DESIGN OPTIONS: US 30 CORRIDOR SEGMENT

- Raised medians with planted trees will require a minimum 8' median island width and minimum 100' length per ODOT HDM standards.
- If trees are planted in medians, and their mature canopy size is wider than the median area itself, the bottom of the canopy must maintain minimum 16' vertical clearance, free of branching to avoid vehicular conflicts. If the mature canopy size is less than or equal to the width of the median, the bottom of the canopy must maintain 10' vertical clearance.
- Any groundcover plantings must maintain a maximum 24" height from the adjacent roadway grade.

Three possible planted median options are presented here, offering different low-maintenance planting and hardscape strategies to consider during design.

Option 1 proposes the use of columnar deciduous or coniferous trees planted in tree wells and spaced approximately 30-feet on center, creating a vertical punctuation at key intersections. The ground plane consists of low maintenance unit paving material such as clay bricks, or concrete unit pavers, mortared in place. An ODOT-approved mountable curb is utilized to provide ease of access for maintenance vehicles.



Option 2 proposes the use of free-standing poles with colorful banners to further reinforce the civic and cultural identity of St. Helens, and are coordinated with new banner located along the east side of the highway, as well as banners mounted to existing utility and light poles along the west side of the highway. A mass of low-maintenance, drought-tolerant ornamental grasses are proposed to soften the roadway and further reinforce US 30 as a Green Corridor.

Option 3 proposes to utilize ODOT-approved modified jersey barrier-style walls to create a robust, elevated planting expression along US 30. Large, broad-leaved deciduous trees are proposed in this option, offering a number of benefits to this asphalt-dominated roadway corridor including needed shade, reduced heat-island effect, stormwater benefits. Low-maintenance, evergreen shrubs provide a year-long stripe of green along this Green Corridor.

2. **PEDESTRIAN AMENITIES.** Streetscape enhancements to the US 30 corridor like new sidewalks, fencing, and plantings are important features for pedestrians to feel welcome and that the street is a comfortable place to be. A vibrant pedestrian realm can increase public safety, increase the value of adjacent real estate, and sustain the health of local businesses. The following summarizes the proposed amenities along US 30:

- A new 6' wide, curb-tight sidewalk is proposed along the east side of the US 30 corridor between Gable Road and St. Helens Street, with connections to existing sidewalks at Gable Road, Columbia Boulevard, and St. Helens Street. This new sidewalk will provide an extension to the existing sidewalk network on the east side of US 30 north of St. Helens Street, and is proposed as a long term improvement for the US 30 corridor.
- To discourage informal crossings of the railroad tracks, a 5' tall fence is proposed on each side of the railroad corridor located 25' from the centerline of the nearest track as required by ODOT Rail to accommodate operations and maintenance vehicles and activity. Access gates shall be provided at each private property entrance, and every 1000' along each side of the



FIGURE C-14 - US 30 Planted Median Option 3

C. RECOMMENDED CORRIDOR DESIGN OPTIONS: US 30 CORRIDOR SEGMENT

corridor.

- The fence should be attractive, visually transparent, durable yet cost effective, and should not have barbed wire or other such human-proofing elements.
- Two fence types - welded-wire mesh fence panels and chain link fencing - are recommended here, each with benefits and disadvantages.

Welded-wire mesh partition fences are a better security barrier than chain link, are easier to modify an existing layout, easier to replace damaged partitions, and have better structural integrity. The vertically-oriented 2"x4" mesh grid is difficult to get a foot-hold discouraging people from climbing. Additionally, most are fabricated with a durable epoxy and polyester coating that provides better corrosion resistance over time than galvanized chain-link fences. This type of fence is an attractive, alternative to standard chain-link fence, which tends to look and feel utilitarian. This type of fence is more expensive than chain-link fences.

Chain link fences are the best-selling fencing system in the world, are less expensive, and easier to install. However, they are easier to climb and not as structurally stable, requiring more long-term maintenance. If this type of fence is pursued, a black vinyl coating is recommended to create a more attractive streetscape edge.



FIGURE C-15 - Example of a concrete sidewalk with plantings and fencing

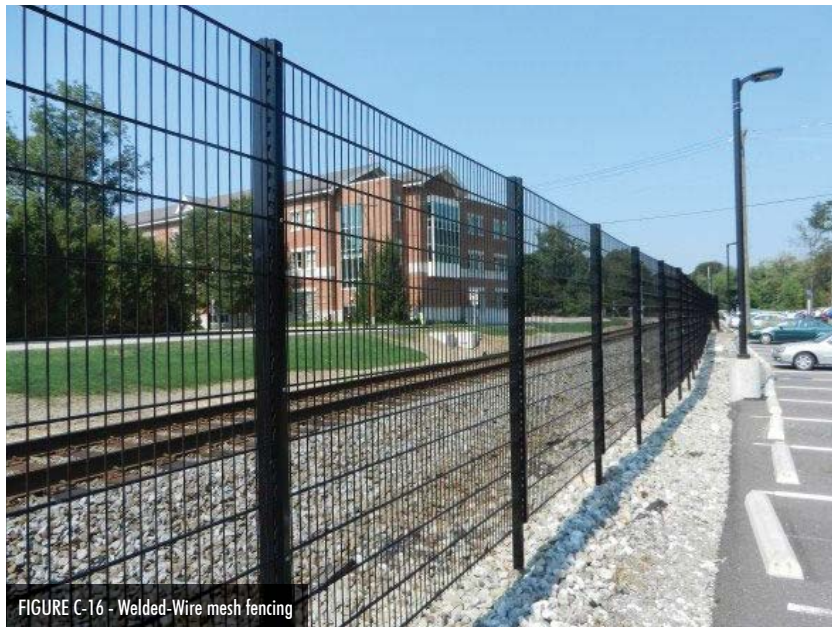


FIGURE C-16 - Welded-Wire mesh fencing



FIGURE C-17 - Black vinyl-coated chain link fence



FIGURE C-18 - Existing "heritage" grove observed along east edge of US 30



FIGURE C-19 - Existing street trees on US 30



FIGURE C-20 - Long term planting concept for the east edge of US 30 including tree groups, shrubs, grasses, and groundcover

- To create a distinctive and uniform "green edge" along the east side of US 30, a continuous, linear swath of street trees is proposed to supplement existing groups of tree plantings. In proposing a long-term vision for establishing a distinctive green edge of the highway, several factors were considered.

First, there are several existing stands of trees and shrubs along the east side of US 30 that are comprised of a mix of species in various states of health and maturity. Several stands, however, are in good health and vigor and should be preserved, and are specifically located just north of Gable Road, just east of Vernonia Road, and from north of St. Helens Street to Pittsburgh Road (and beyond). The design proposes to retain these existing "heritage" groves, and intersperse new plantings in a way the complements and highlights them.

Secondly, approximately 60 street trees located approximately 6' from the back of curb, extend north from Gable Road to just north of Sykes Road, and from McBride Street to Columbia Road. These street trees, which are also in varying states of health and maturity, are comprised of a mix of oak, ash, and cherry, will likely all require replacement in roughly 20-30 years. Additionally, due to its proximity to these existing trees the new east sidewalk may require many, if not all of these street trees to be removed. However, considering the east sidewalk is a long-term improvement, the design proposes removing and replacing these trees in kind with species of equal or greater value at the time the sidewalk is installed, which would help in establishing the long-term vision of creating a distinc-

C. RECOMMENDED CORRIDOR DESIGN OPTIONS: US 30 CORRIDOR SEGMENT

tive, uniform green edge to the east side of US 30.

- New shrub and ornamental grass plantings are proposed along the east edge of the highway between the back of sidewalk and fence to reinforce the concept of a green highway edge, and should be comprised of species that are low-maintenance, site appropriate, distinctive, and should maintain sight lines at intersections and rail crossings.
 - The design proposes to enhance the west side of US 30 by encouraging private property owners to plant new tree and shrub plantings behind the sidewalk and create a needed visual and physical buffer between public sidewalks and private parking lots. These plantings would be installed on private property through redevelopment activity and/or partnerships between the City and private property owners. These shrubs and trees should complement the species and groupings on the east side of the highway to maintain continuity and reinforce US 30 as a green corridor.
3. **CIVIC IDENTITY.** Gateway elements, public art, and banner poles can strengthen the identity of the US 30 corridor, enhancing the visitor's relationship to St. Helens and resulting in frequent visitation, loyalty, and an ongoing interest in the vitality of its downtown. The following summarizes the proposed elements that contribute to civic identity along US 30:
- New banners are proposed on both sides of US 30 to add festiveness and variety to this commercial arterial. Along the west edge, the design proposes to hang banners on existing utility and light poles, which are spaced on average at 250' apart between Gable Road and Columbia Boulevard. North of Columbia Boulevard on the west side where there are fewer existing utility poles, and along the eastern edge of US 30 from Gable Road to Pittsburgh Road, new banners poles are proposed at 250' spacing to reinforce a consistent and unified roadway corridor.
 - As part of the US 30 / Columbia Boulevard Gateway (described further below), a series of sculptural elements are proposed



FIGURE C-21 - Example of street banners from Lake Oswego, OR



FIGURE C-22 - Banner poles in groups have a significant impact on civic identity

along the east side of the highway at strategic locations to help announce key intersections, help draw visitors downtown, and create a unified and distinctive streetscape that honors the spirit of St. Helens. Specific locations include north of Gable Road, between Columbia Boulevard and St. Helens Street, and north of St. Helens Street. These sculptures are intended to serve as a “trail of breadcrumbs” for visitors to St. Helens, and are described in greater detail below.

4. **PUBLIC TRANSIT** The Columbia County Transit District (CC Rider) has long term plans for providing transit service in the US 30 corridor using bus stops on the roadway. Currently buses pull off the road into parking or other areas to allow riders to get on or off the buses, causing significant increases in transit time. At this time, only two to three stops are envisioned, at approximately Gable Road, Columbia Blvd and possibly a location approximately mid-way between them. Incorporating bus pullouts in these or other locations will require some combination of the following to accommodate them:

- Acquisition of additional right-of-way or easements, particularly on the west side of US 30
- Location-specific design refinements to the proposed pathway and landscaping concepts on the east side of US 30
- Incorporation of bus shelters, lighting, landing pads and/or other needed amenities associated with the bus pullouts and stops

We have not incorporated these features into the proposed design concept for US 30 but note that we assume they would be incorporated during a subsequent, more detailed design phase.



FIGURE C-23 - Metal sculptural elements recall railroad history, creating a unique identity for the front door of St. Helens. A welcome sign is integrated into one of the elements, and is located at a “mini plaza”.

SPECIAL OPPORTUNITY AREAS

A number of areas are identified throughout this report as "Special Opportunity Areas." These locations provide prospects for signature improvements that will enhance the overall corridor and meet specific community goals or needs, and may include the creation of gathering places, gateway features, viewpoints, or stormwater management features. Special Opportunity Areas that are located on private property are identified below, which will require the City to purchase the land and develop these recommended improvements. These ideas are preliminary, and would need the support of those property owners to move forward.

1. US 30 / 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. While the primary gateway features are envisioned at the intersection of US 30 and Columbia Boulevard, the gateway may include features that extend as far as the US 30/ St. Helens Street intersection, which would serve as a secondary gateway.



FIGURE C-24 - Conceptual view of the US 30 / Downtown Gateway, showing sculptural elements, "mini-plaza", street trees, intersection enhancements, and gateway arch - SUBJECT TO CHANGE

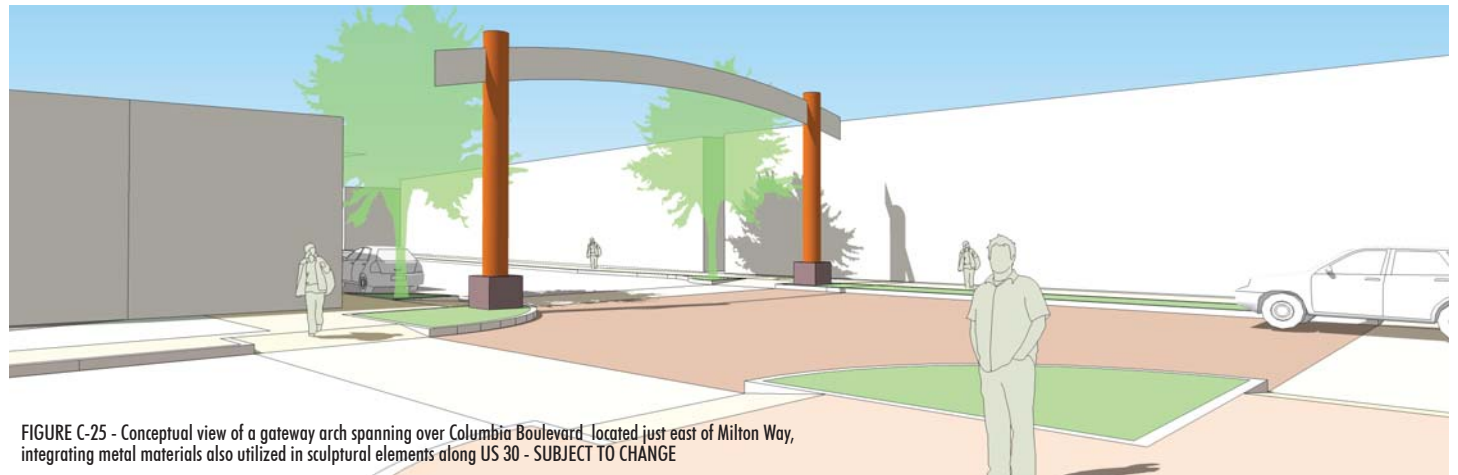


FIGURE C-25 - Conceptual view of a gateway arch spanning over Columbia Boulevard, located just east of Milton Way, integrating metal materials also utilized in sculptural elements along US 30 - SUBJECT TO CHANGE



FIGURE C-26 - The existing US 30 crossing and train trestle at Milton Creek

2. MILTON CREEK PEDESTRIAN BRIDGE
 – A critical link to the successful establishment of a new pedestrian sidewalk 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 sidewalk if financially feasible. There also may be opportunities to integrate current art/sculptural concepts being explored for the roadway bridge into the pedestrian bridge.



FIGURE C-27 - Example of a pedestrian bridge of similar scale and character

C. RECOMMENDED CORRIDOR DESIGN OPTIONS: US 30 CORRIDOR SEGMENT

CONCEPTUAL INTERSECTION ENHANCEMENTS

A number of potential improvements have been identified to address traffic safety and operational issues and concerns at specific locations in this corridor segment. These conceptual intersection enhancements are intended to improve safety for all users (e.g., drivers, bicyclists, and pedestrians), while also enhancing the appearance and function of the transportation system.

1. **US 30 @ WYETH STREET** - This concept illustrates a potential enhanced pedestrian crossing at the south leg of the US30/Wyeth Street intersection. Conceptually the crossing would include signing, striping, and a raised median island to help facilitate pedestrian movements across US30. Subject to ODOT and ODOT Rail 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. Either treatment would restrict northbound left-turn movements from US30 to the Columbia Commons Business Campus. ODOT state traffic engineer approval would be required for any intersection improvements; coordination with ODOT Rail is also needed. This likely will be a challenging project for which to obtain ODOT approval and secure funding. It also should be considered in the context of potential future development in this area and alternative connectivity, such as the anticipated future US30/Pittsburg Road traffic signal.





2. ST. HELENS STREET @ US 30 -
 This concept illustrates potential enhancements to the westbound approach to the US30/St Helens Street intersection as well as the segments of St Helens Street within the Houlton area. This concept includes a continuous on-street bicycle lane along the north side of St Helens Street, which continues straight through to US30 between the two left-turn lanes and the right-turn lane (which is developed after 21st Street). This concept also includes a small splitter island at the westbound approach to the intersection to improve crossing conditions for pedestrians as well as to provide further separation between cyclists and right-turning motorists.

PHASING RECOMMENDATIONS AND COST CONSIDERATIONS

Improvements for the US 30 Corridor segment can be separated into short-term and long-term improvements:

- **Short-term Improvements** – Implement Option 1, with lower cost plantings in the medians, a combination of banner poles, and more consistent landscaping on the rail (east) side of the highway.
- **Long-term Improvements** – Develop sidewalk on the rail side of the highway, if feasible within available area and rail constraints.

A potential range of construction costs is provided for the US 30 Corridor Segment improvements in Table C-1, below. These potential costs are broken down into Short-Term Improvements and Long-Term Improvements. These order-of-magnitude costs were derived from the recommended improvements for described in the pages above, and are presented as a range to allow for flexibility in implementation, described further below.

TABLE C-1: ORDER OF MAGNITUDE COSTS FOR US 30 CORRIDOR SEGMENT IMPROVEMENTS			
ITEM	INCLUSIONS	POTENTIAL RANGE OF CONSTRUCTION COSTS	
		LOW	HIGH
<u>SHORT-TERM IMPROVEMENTS</u>	<ul style="list-style-type: none">• Medians (curbs, plantings, trees/banner poles)• Plantings (east side of US 30)• New Banner Poles (east side of US 30)• New Banners on Existing Utility Poles• New Curb Ramps• New Crosswalk Striping• Mobilization/Demo• 30% Design / Construction Contingencies	\$750,000	\$1,650,000
		Assumes low-intensity landscape plantings throughout medians and new planting areas, standard median curbs, and base options for banners and banner poles.	Assumes medians with banner poles or sculptural elements, jersey barrier-style walls and articulated paving, higher-intensity trees and plantings in all new landscape areas, and high quality banners and banner poles.
<u>LONG-TERM IMPROVEMENTS</u>	<ul style="list-style-type: none">• Fencing (each side of ODOT Rail property)• New Sidewalk (east side of US 30)• Intersection Crosswalk Paving• Curb Ramps• Trees and Plantings (east side of US 30)• Private Property Landscape Improvements• Mobilization/Demo• 30% Design / Construction Contingencies	\$1,500,000	\$2,350,000
		Assumes chain-link fencing, standard concrete sidewalks, standard concrete crosswalk paving materials, and low-intensity landscape plantings.	Assumes welded-wire mesh panel fencing, articulated concrete sidewalk paving, colored and/or textured concrete crosswalk paving materials, and high-intensity landscape plantings.

Houlton & Olde Towne Corridor Segment

OVERALL APPROACH

In developing concepts for improving these areas, our overall approach considers the Houlton and Olde Towne corridor segments together, working in concert to create a cohesive Master Plan for the entire corridor between US 30 and 1st Street. The following list summarizes the overall approach for improving Houlton and 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. IMPROVE PEDESTRIAN SAFETY. The recommended design proposes to introduce a number of traffic calming features and elements throughout Houlton and Olde Towne that help build human-scale spaces and a pedestrian-friendly environment. These improvements rely on narrowing the roadway and widening sidewalks to accommodate bulbouts and pedestrian refuge islands that shorten pedestrian crossings, diagonal parking strategies that increase driver awareness and calm traffic, as well as enhanced intersections and new crosswalk striping.
2. IMPROVE CONNECTIVITY. Several design features improve pedestrian and bicycle connectivity throughout and between the Houlton and Olde Towne corridors. Widened sidewalks, new roadway striping for bicyclists and pedestrians, as well as a consistency in streetscape design and materials from US 30 to 1st Street facilitate pedestrian and bicycle movement throughout the downtown district.
3. IMPROVE AESTHETICS AND SENSE OF PLACE. A number of pedestrian amenities are proposed as part of the recommended design for the Houlton and Olde Towne corridor segments, and include planting strips with new street trees, streetscape furnishings such as benches, bike racks, and waste receptacles, pedestrian scale lighting, wayfinding signage, community kiosks, and gateway markers. Additionally, several flexible, unprogrammed sidewalk spaces called “parklets” are provided as a strategy to provide additional space for amenities and green space and to “reclaim the right-of-way” for pedestrians.
4. IMPROVE ECONOMIC VITALITY. Improving the safety and comfort for pedestrians will make this a more attractive place to visit and shop, including for those people driving to the area. Providing more area for people to gather, sit and/or shop on the sidewalks and within the parking areas will expand opportunities for local business and also help draw people to the area. All of these impacts will enhance the economic viability of the area.



FIGURE C-30 - Houlton & Olde Towne Corridor Segment Proposed Improvements



Two predominant roadway types comprise the Houlton and Olde Towne project areas: one-way streets along Columbia Boulevard and St. Helens Street west of 13th Street; and two-way streets along Columbia Boulevard east of 13th Street, along 1st Street between Columbia Boulevard and St. Helens Street, and along St. Helens Street between 1st Street and 4th Street. The following two sections provide a summary of the design concepts for each of these areas – West of 13th Street, and East of 13th Street – followed by a summary of the design concepts and streetscape elements common to both of the Houlton/Olde Towne corridor segments.

STREETSCAPE DESIGN CONCEPTS – WEST OF 13TH STREET

Between US 30 and 13th Street in the Houlton corridor segment, Columbia Boulevard serves as the one-way eastbound street surrounded primarily by commercial land uses, while St. Helens Street serves as the one-way westbound street and is predominantly residential. The recommended design proposes two distinctive streetscape strategies that best serve the unique character and settings of each of these streetscapes west of 13th, and are explained further below:

1. COLUMBIA BOULEVARD BETWEEN US 30 AND 13TH STREET

The recommended design concept proposes to narrow each one-way travel lane width down to 12' and dedicate this leftover space oriented towards pedestrians, and also to introduce unprogrammed, flexible spaces that serve as extensions of the sidewalk called "parklets".

- Parklets can be either permanent spaces at corners or mid-block bulbout locations designed in a flexible manner to accommodate various uses or amenities. Alternatively, parklets can be more temporary in nature and located in on-street parking stalls that are visually or physically differentiated from the adjacent roadway in some manner. In this commercial setting, parklets offer adjacent business owners with potential for setting up outdoor seating, dining, or shopping areas, which would help activate the streetscape and encourage people to stop and linger.

Parklets can be implemented along Columbia Boulevard between US 30 and 13th Street, however, due to varying right-of-way widths, parklets will tend to be narrow and more linear between Milton Way and 18th Street where the existing right-of-way is generally around 60' width, and generally deeper and larger between 18th Street and 13th Street where the right-of-way width widens out to approximately 80' in width.

- Between 18th Street and 13th Street, this 80' right-of-way provides opportunities to introduce diagonal parking with a 6-7' width sidewalk along the south side of Columbia Boulevard. Diagonal parking offers a number of benefits including increased safety and traffic calming with elevated driver awareness, and inherent efficiency in parking configurations along a block face. Striving for no net loss or gain in parking, this efficient diagonal parking layout accommodates more space for parklets than in traditional parallel parking configurations. The graphics in this report show potential conceptual locations for parklets that make sense within the context of the location of intersections and other conditions in the area. However, the exact location of these features could be refined based on further discussion between the City, business and property owners and other community members.

Along the north side of Columbia Boulevard between 18th Street and 13th Street, the design proposes a 10' wide paved sidewalk that accommodates a 6' width pedestrian through-zone and a 4' width furnishing zone with site furnishings, pedestrian scale lights, and street trees.

- Between US 30 and 18th Street, the 60' right-of-way can accommodate 6' width sidewalks and parallel parking on each side of Columbia Boulevard in addition to the two 12' width travel lanes and 6' width bicycle lane. Bulbouts and mid-block curb extensions along this stretch provide spaces for planting areas, street furnishings, and pedestrian scale lighting, which need

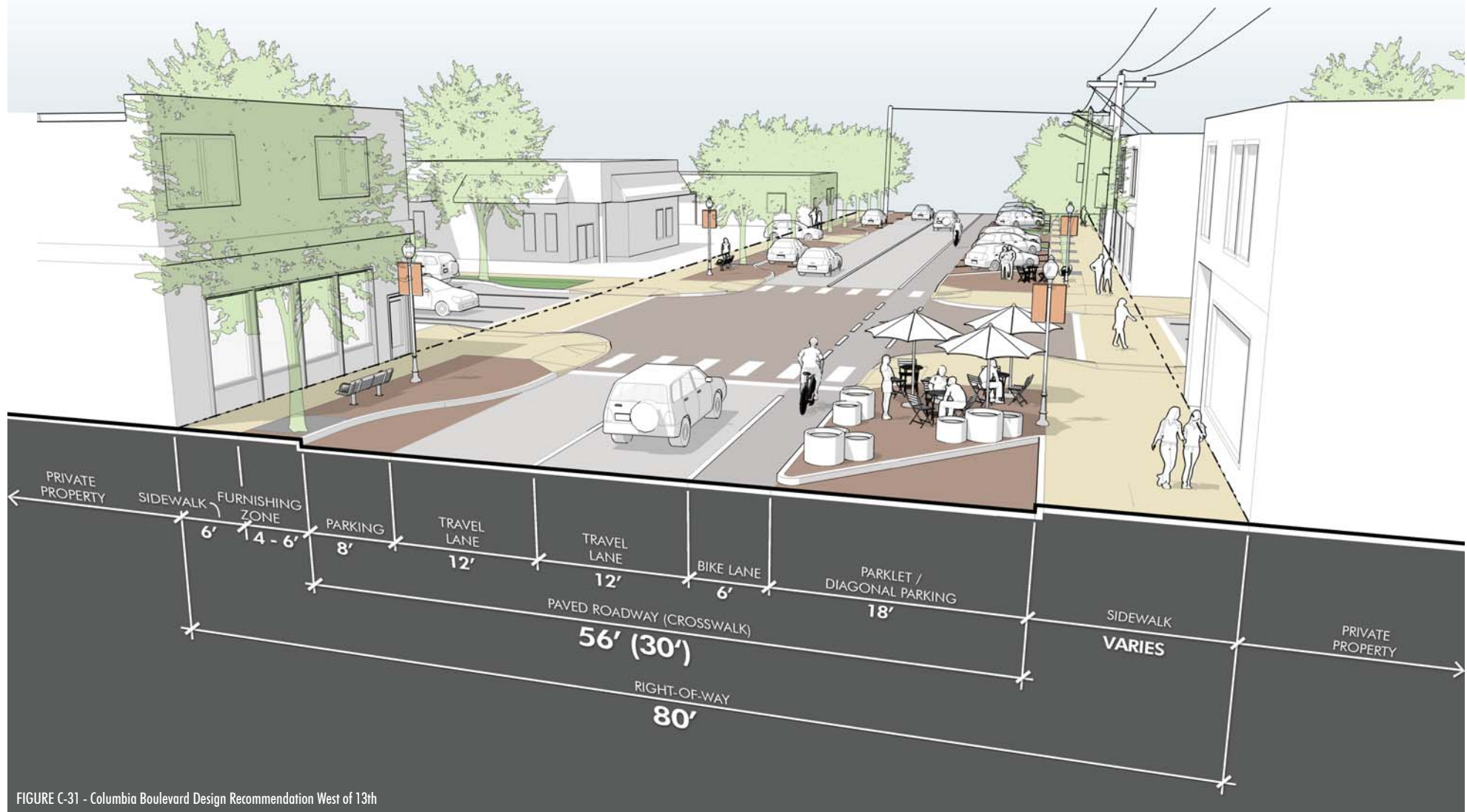


FIGURE C-31 - Columbia Boulevard Design Recommendation West of 13th

C. RECOMMENDED CORRIDOR DESIGN OPTIONS: HOULTON & OLDE TOWNE CORRIDOR SEGMENTS

to meet minimum sight clearance requirements.

- To shorten pedestrian crossing distance and help calm traffic, bulbouts and mid-block crossings are proposed at most intersections along Columbia Boulevard between US 30 and 13th Street. Bulbouts with crosswalks are generally located on the west side of intersections along this one-way street to minimize pedestrian and motor vehicle conflicts. Mid-block crossings are located at T-intersections along the south side of Columbia Boulevard, and provide space for additional plantings and/or street furnishings.

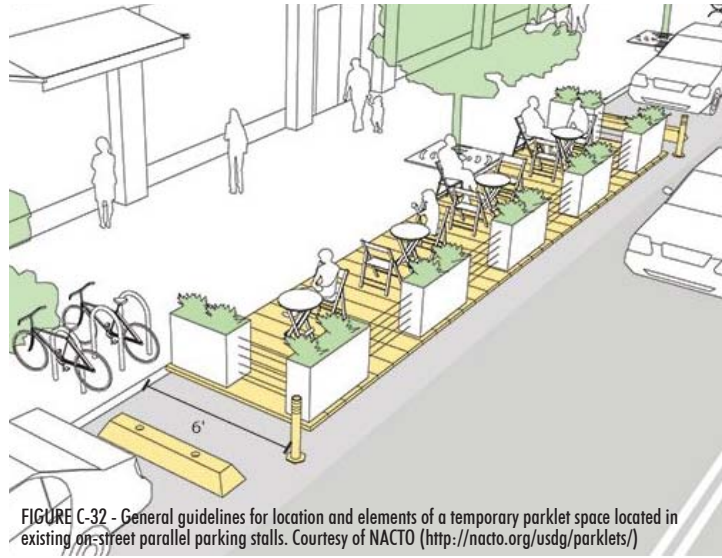


FIGURE C-32 - General guidelines for location and elements of a temporary parklet space located in existing on-street parallel parking stalls. Courtesy of NACTO (<http://nacto.org/usdg/parklets/>)



FIGURE C-33 - An example of a temporary parklet located in existing on-street parking stalls - Oakland, CA

2. ST. HELENS STREET BETWEEN US 30 AND 13TH STREET

The recommended design concept proposes to narrow one-way travel lanes to 12' width along St. Helens Street, and dedicate the leftover space to create widened sidewalks with generous planting strips and 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, creating a Pedestrian Promenade for visitors and residents of St. Helens. Bulbouts shorten the pedestrian crossing distance from 45'-55' in the current roadway conditions down to 30' in this option, improving pedestrian safety.



FIGURE C-34 - Outside cafe seating and planting amenities located in an extension of the sidewalk area adjacent to existing on-street diagonal parking - Winters, CA

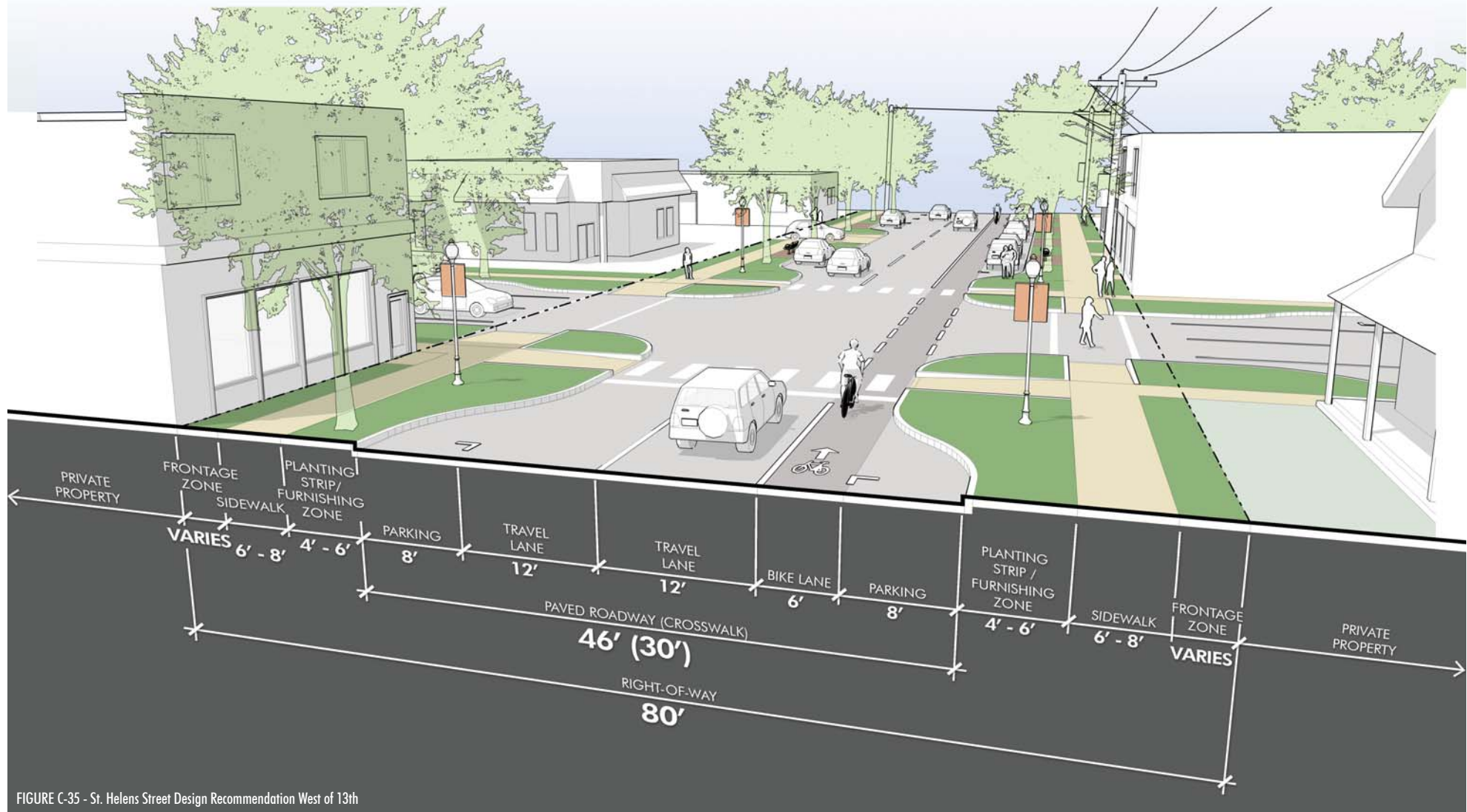


FIGURE C-35 - St. Helens Street Design Recommendation West of 13th

C. RECOMMENDED CORRIDOR DESIGN OPTIONS: HOULTON & OLDE TOWNE CORRIDOR SEGMENTS

- To shorten pedestrian crossing distance and help calm traffic, bulbouts and mid-block crossings are proposed at most intersections along St. Helens Street between US 30 and 13th Street. Bulbouts with crosswalks are generally located on the east side of intersections along this one-way street to minimize pedestrian and motor vehicle conflicts. Mid-block crossings are located at T-intersections along the north side of St. Helens Street, and provide space for additional plantings and/or street furnishings, which need to meet minimum sight clearance requirements.

STREETSCAPE DESIGN CONCEPTS – EAST OF 13TH STREET

East of 13th Street, Columbia Boulevard serves as the primary two-way street providing access to the Olde Towne area. The recommended design concept proposes the use of widened sidewalks, street trees and plantings, site furnishings, and improved pedestrian sidewalks and crossings, to improve the safety of pedestrians, while creating a sense of place and identity for St. Helens. As noted previously, 1st Street between Columbia Boulevard and St. Helens Street has a unique configuration demanding special attention, and will be addressed in the following Special Opportunity Areas section.

1. COLUMBIA BOULEVARD BETWEEN 13TH STREET AND 1ST STREET

The recommended design concept for this segment 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. These elements work in concert to create a Pedestrian Promenade that connects visitors between the Houlton and Olde Towne areas.

2. ST. HELENS STREET BETWEEN 1ST STREET AND 4TH STREET

Along these four blocks, new bulbouts and crosswalk striping are proposed to increase pedestrian safety and provide additional areas for planting areas and site furnishings. Parklets are proposed at the corner of St. Helens and 1st Street, providing flexible spaces that could act as gateway elements announcing visitors' arrival into Olde Towne.

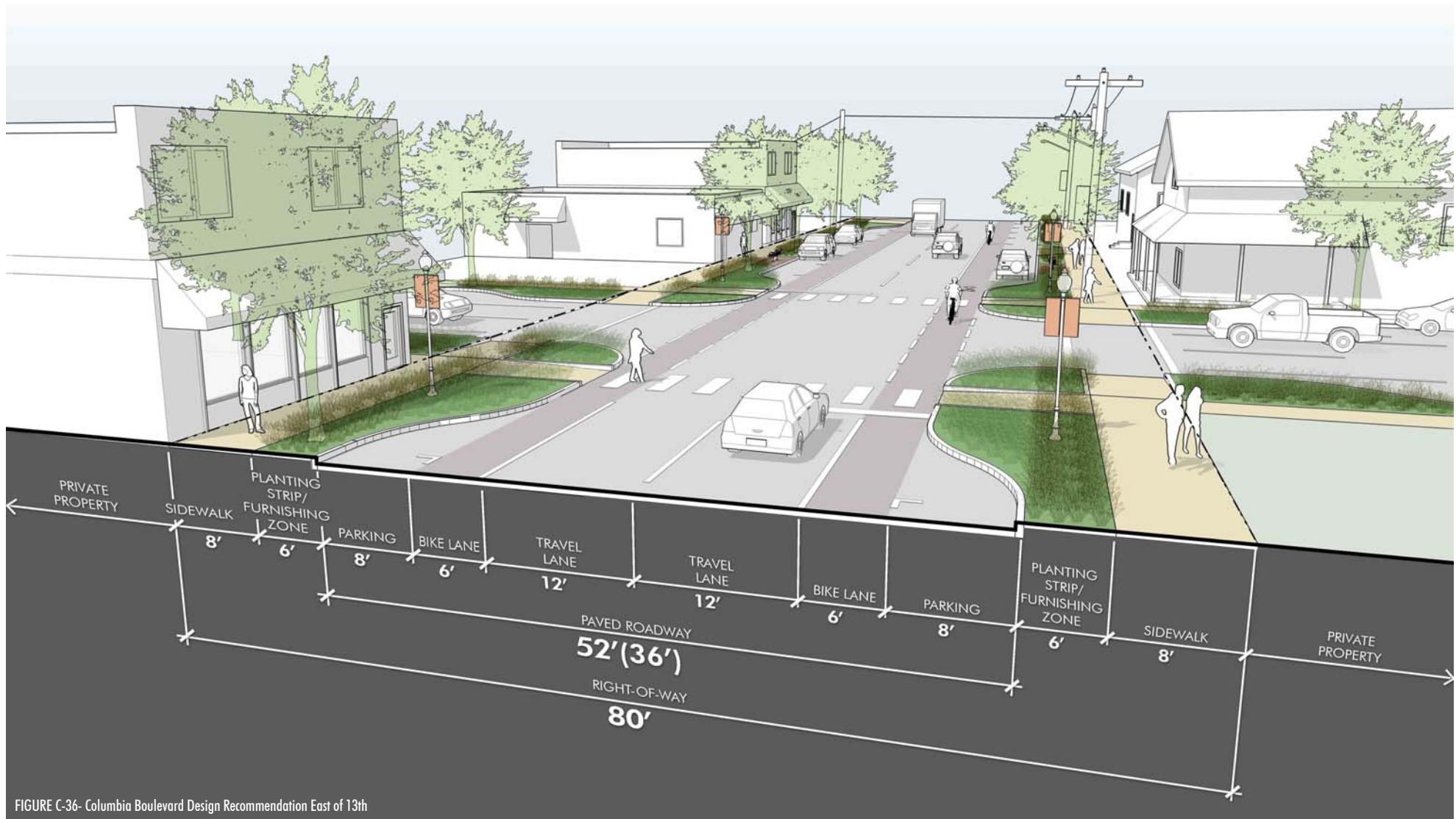


FIGURE C-36- Columbia Boulevard Design Recommendation East of 13th

C. RECOMMENDED CORRIDOR DESIGN OPTIONS: HOULTON & OLDE TOWNE CORRIDOR SEGMENTS

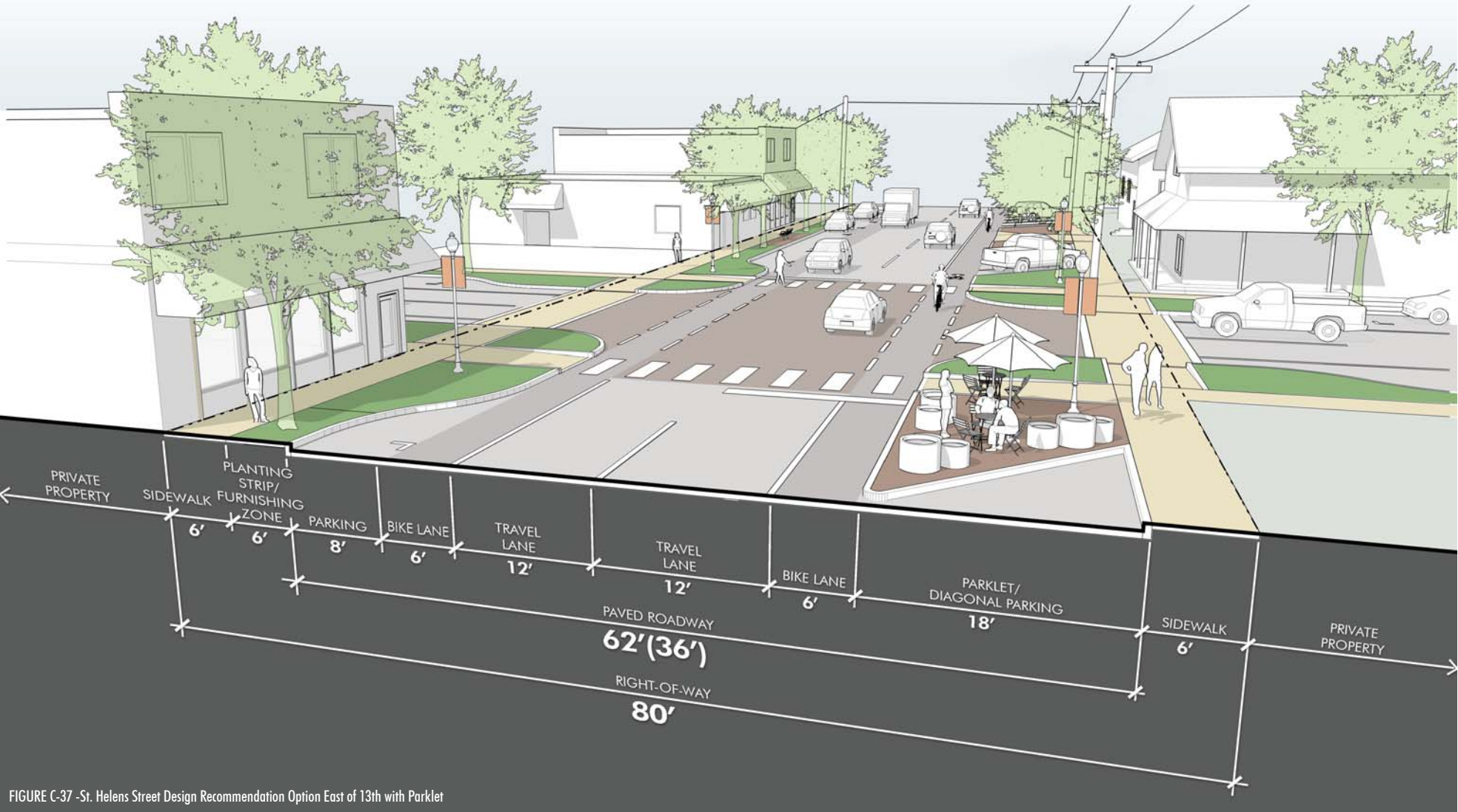


FIGURE C-37 -St. Helens Street Design Recommendation Option East of 13th with Parklet

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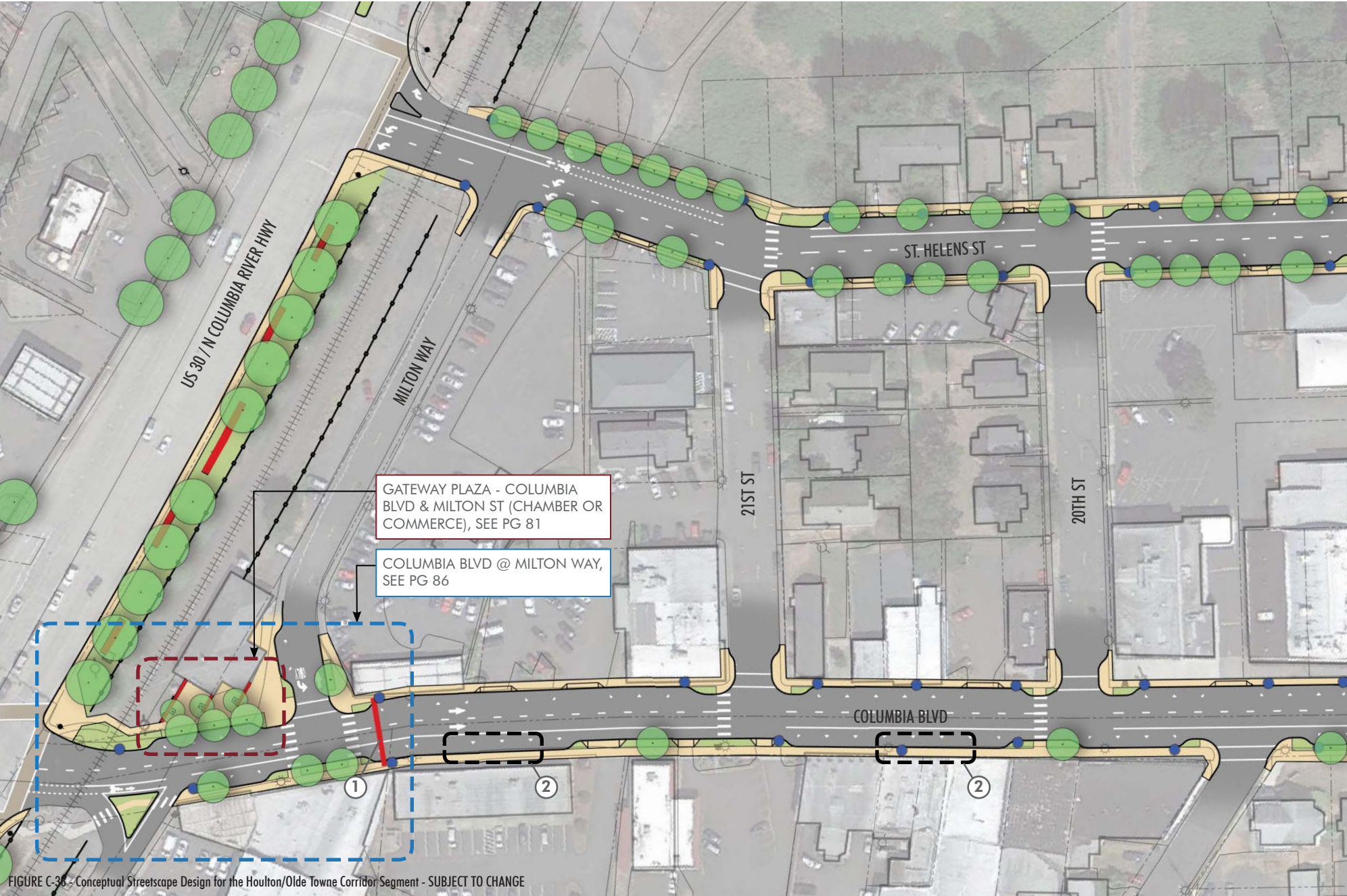


FIGURE C-36 - Conceptual Streetscape Design for the Houlton/Olde Towne Corridor Segment - SUBJECT TO CHANGE



LEGEND: HOULTON & OLDE TOWNE

- NEW SIDEWALK
- PLANTING STRIP/FURNISHING ZONE
- SCULPTURAL ELEMENT
- PARKLET - SUBJECT TO CHANGE
- ENHANCED INTERSECTION PAVING
- NEW CROSSWALK STRIPING
- NEW LIGHT POLE
- NEW TREE
- SPECIAL OPPORTUNITY AREA
- CONCEPTUAL INTERSECTION ENHANCEMENT

KEY NOTES

- ① GATEWAY ARCH
- ② TEMPORARY PARKLET LOCATION - SUBJECT TO CHANGE



PLANS ARE CONCEPTUAL AND SUBJECT TO CHANGE

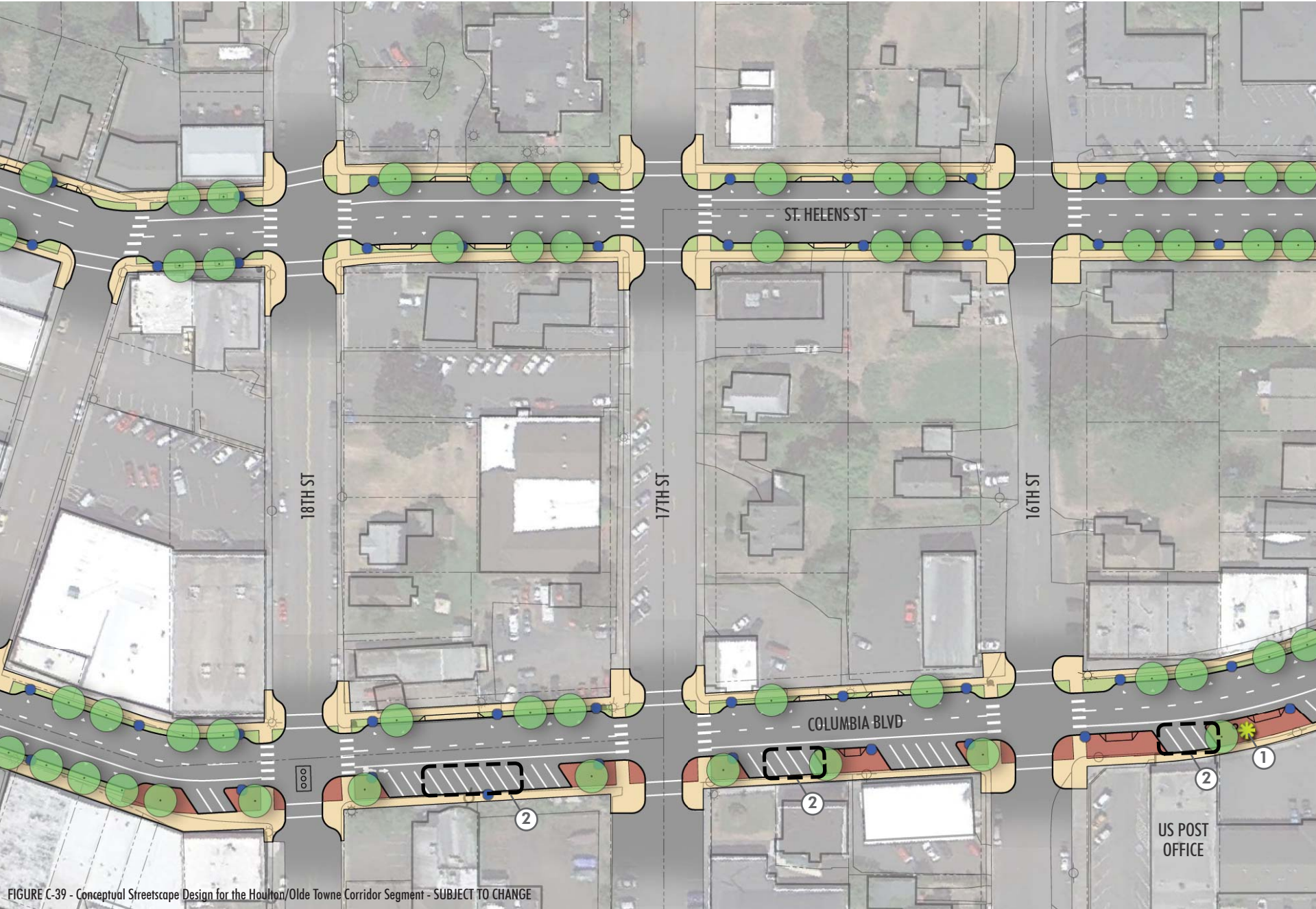
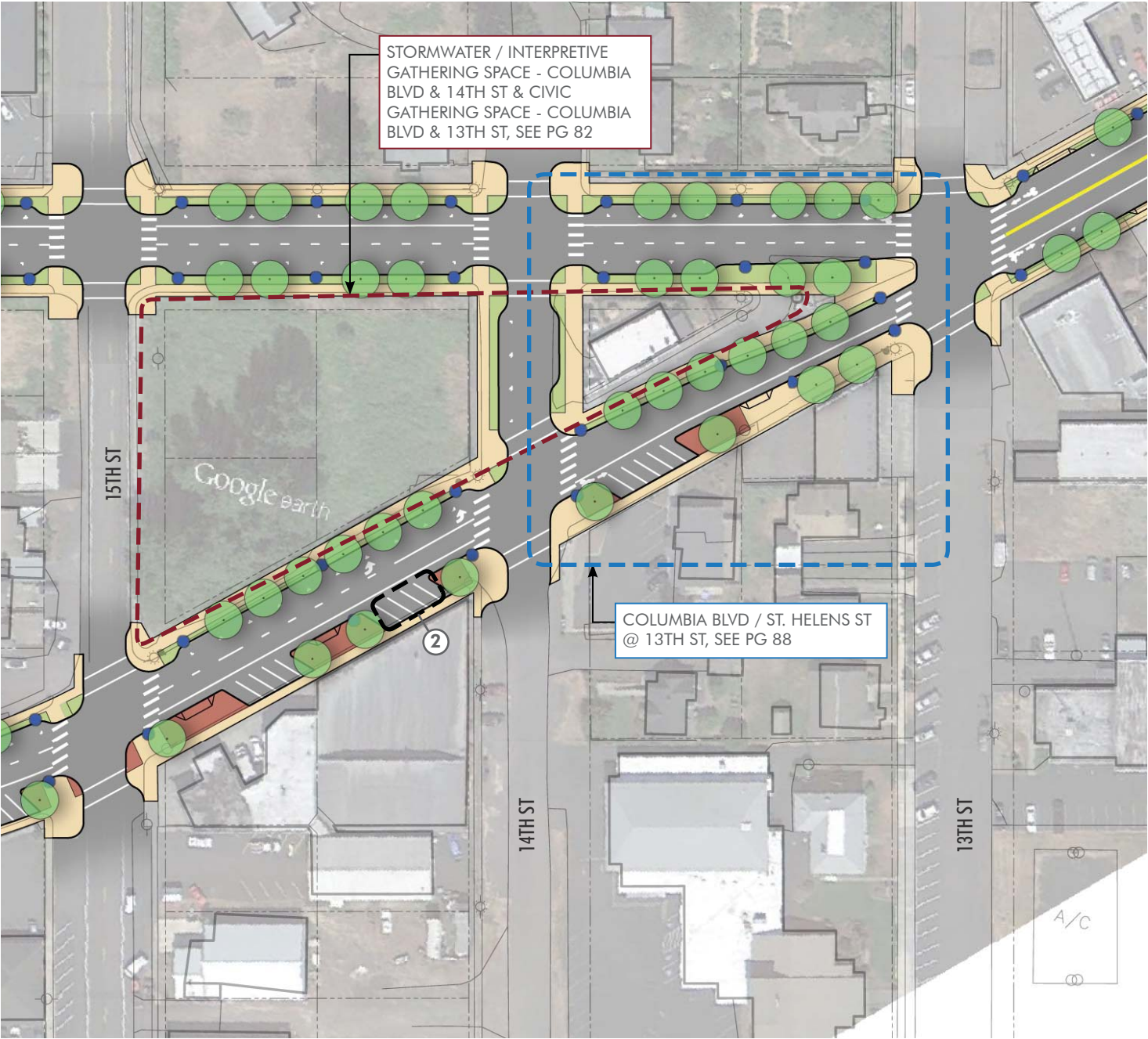


FIGURE C-39 - Conceptual Streetscape Design for the Houlton/Olde Towne Corridor Segment - SUBJECT TO CHANGE



LEGEND: HOULTON & OLDE TOWNE

- NEW SIDEWALK
- PLANTING STRIP/FURNISHING ZONE
- SCULPTURAL ELEMENT
- PARKLET - SUBJECT TO CHANGE
- ENHANCED INTERSECTION PAVING
- NEW CROSSWALK STRIPING
- NEW LIGHT POLE
- NEW TREE
- SPECIAL OPPORTUNITY AREA
- CONCEPTUAL INTERSECTION ENHANCEMENT

KEY NOTES

- ① COMMUNITY KIOSK
- ② TEMPORARY PARKLET - LOCATION SUBJECT TO CHANGE



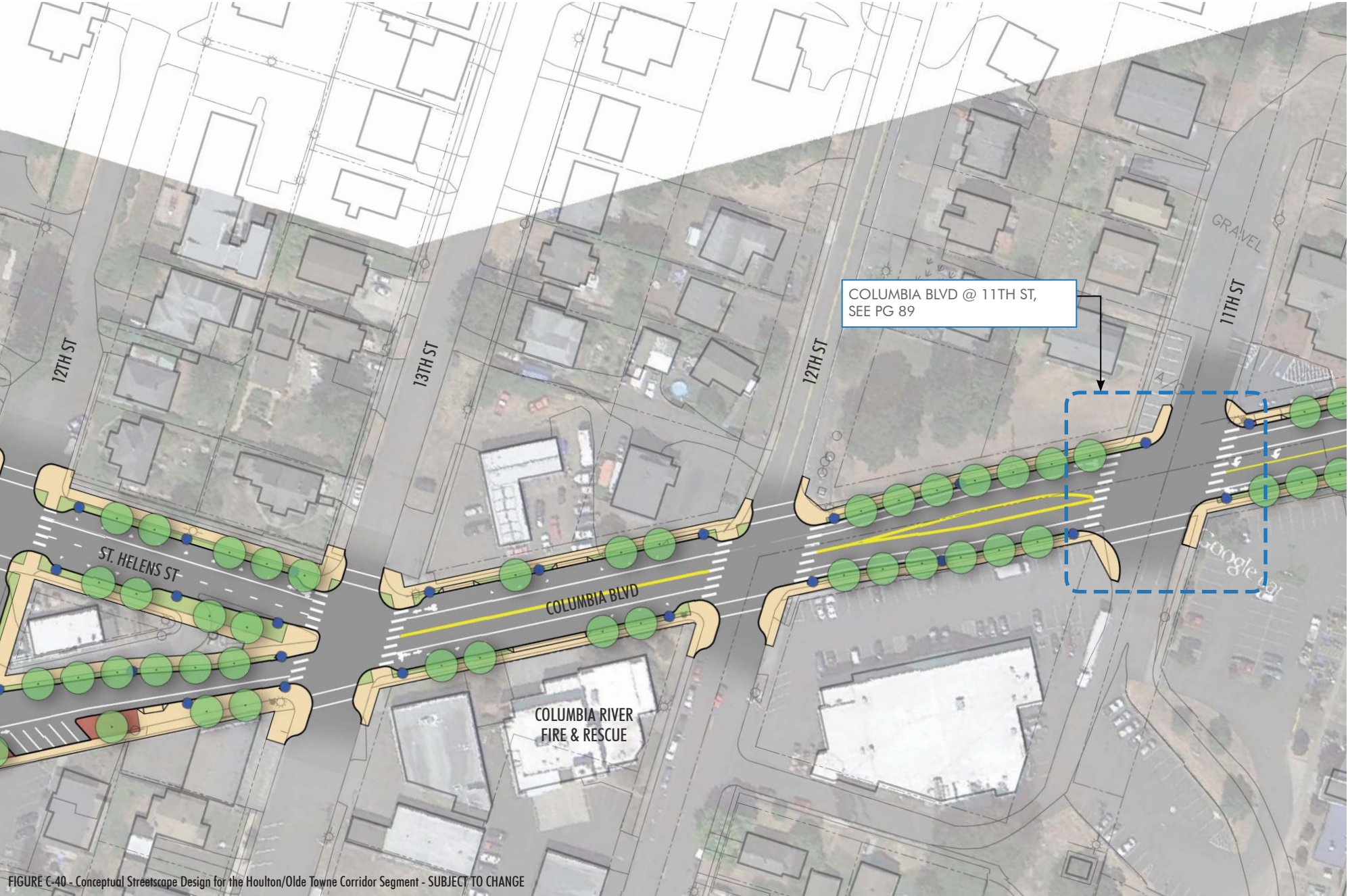
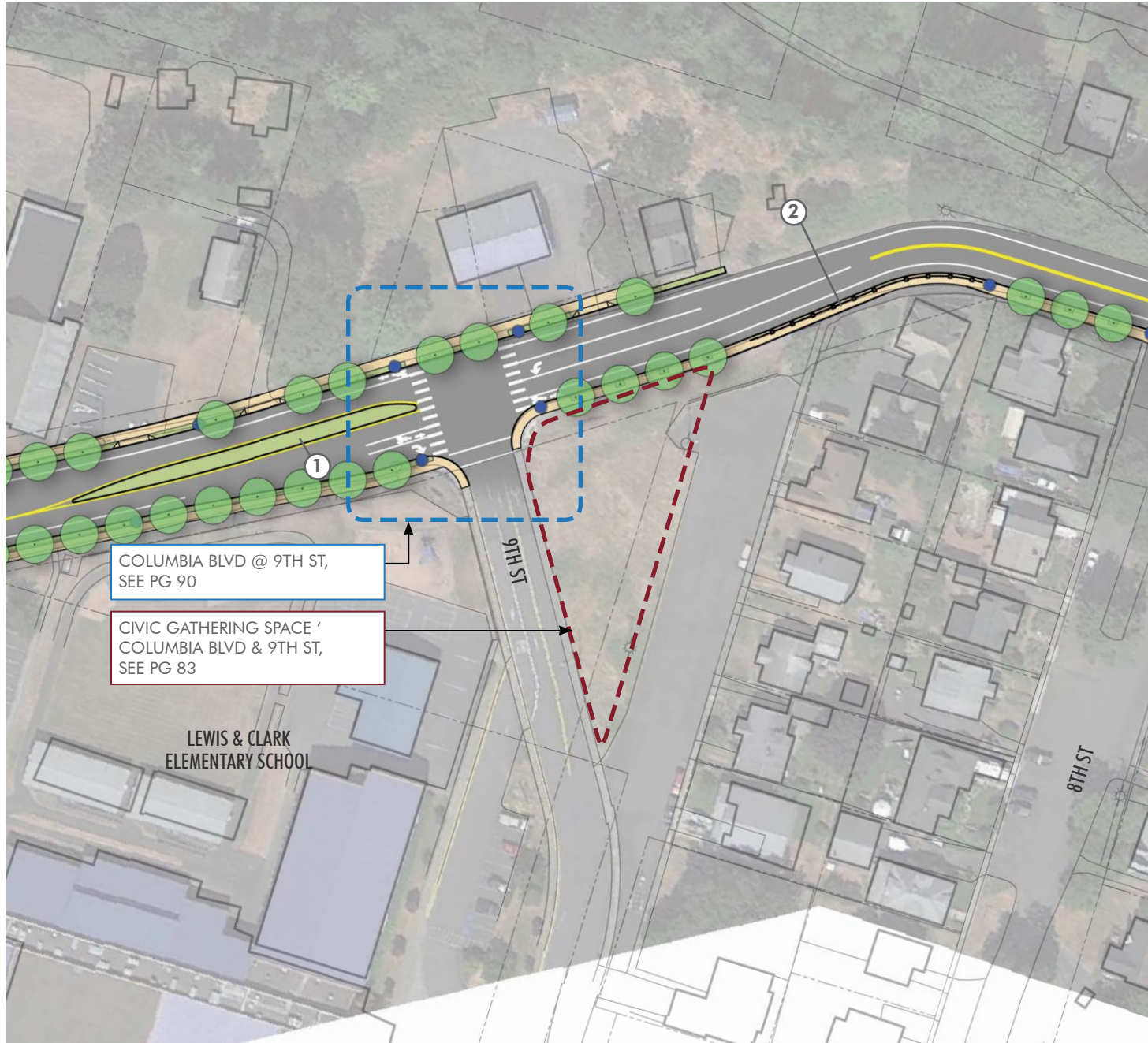







FIGURE C-40 - Conceptual Streetscape Design for the Houlton/Olde Towne Corridor Segment - SUBJECT TO CHANGE

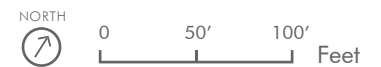


LEGEND: HOULTON & OLDE TOWNE

-  NEW SIDEWALK
-  PLANTING STRIP/FURNISHING ZONE
-  SCULPTURAL ELEMENT
-  PARKLET - SUBJECT TO CHANGE
-  ENHANCED INTERSECTION PAVING
-  NEW CROSSWALK STRIPING
-  NEW LIGHT POLE
-  NEW TREE
-  SPECIAL OPPORTUNITY AREA
-  CONCEPTUAL INTERSECTION ENHANCEMENT

KEY NOTES

- ① NEW PLANTED MEDIAN
- ② NEW ORNAMENTAL GUARDRAIL



PLANS ARE CONCEPTUAL AND SUBJECT TO CHANGE

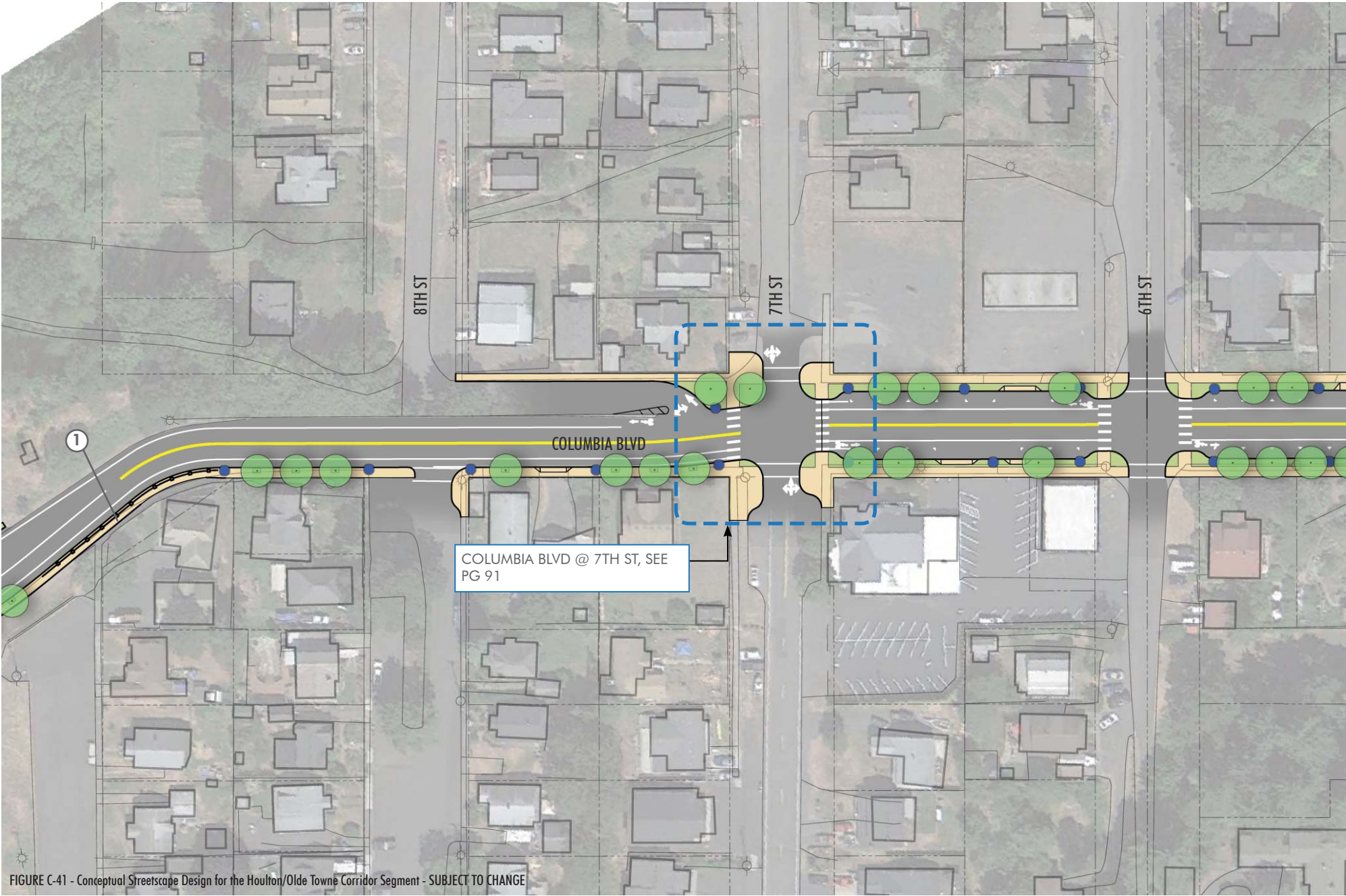
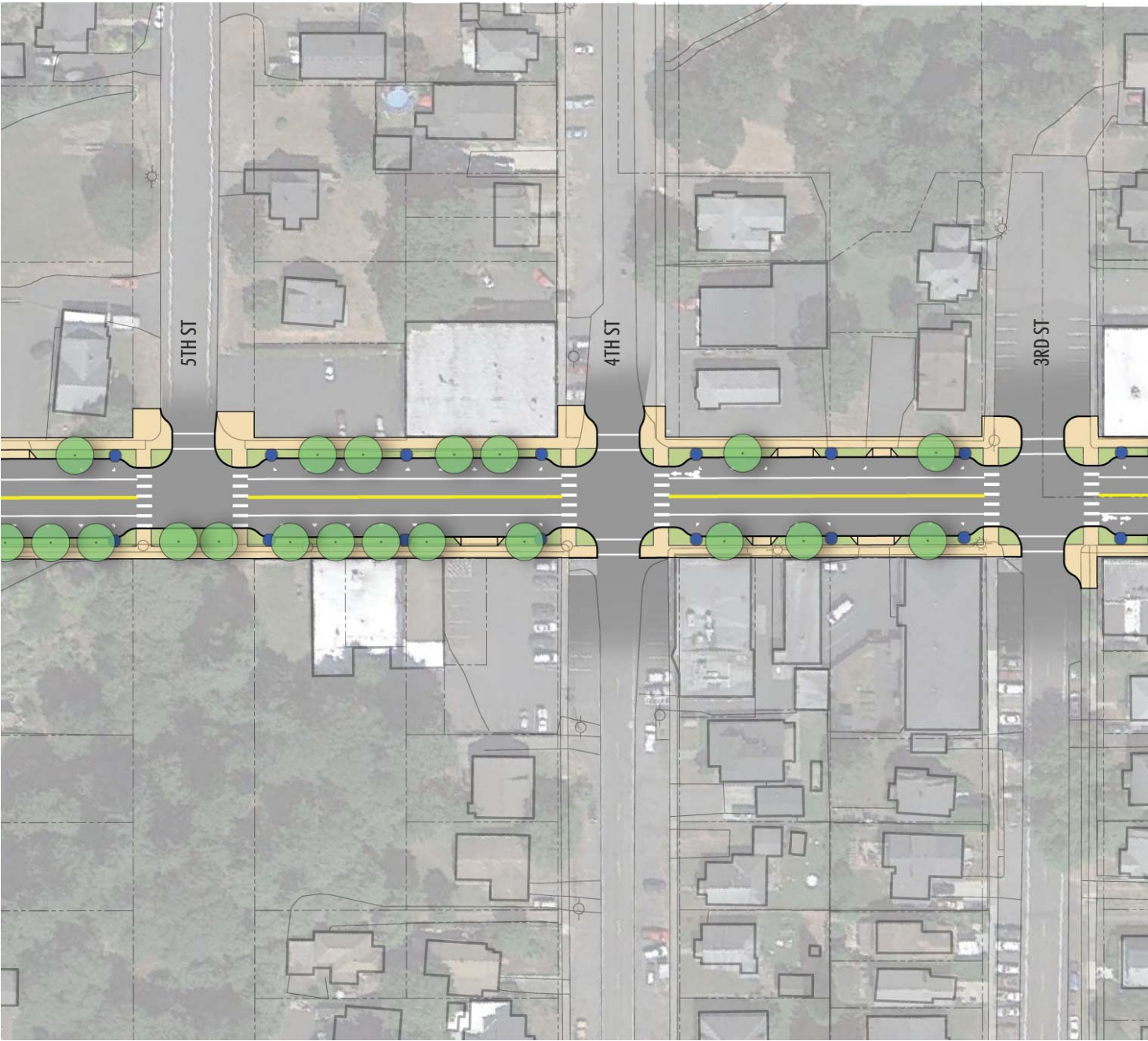


FIGURE C-41 - Conceptual Streetscape Design for the Houlton/Olde Towne Corridor Segment - SUBJECT TO CHANGE



LEGEND: HOULTON & OLDE TOWNE

- NEW SIDEWALK
- PLANTING STRIP/FURNISHING ZONE
- SCULPTURAL ELEMENT
- PARKLET - SUBJECT TO CHANGE
- ENHANCED INTERSECTION PAVING
- NEW CROSSWALK STRIPING
- NEW LIGHT POLE
- NEW TREE
- SPECIAL OPPORTUNITY AREA
- CONCEPTUAL INTERSECTION ENHANCEMENT

KEY NOTES

- ① NEW ORNAMENTAL GUARDRAIL



RECOMMENDED CORRIDOR DESIGN OPTIONS: HOULTON & OLDE TOWNE CORRIDOR SEGMENTS

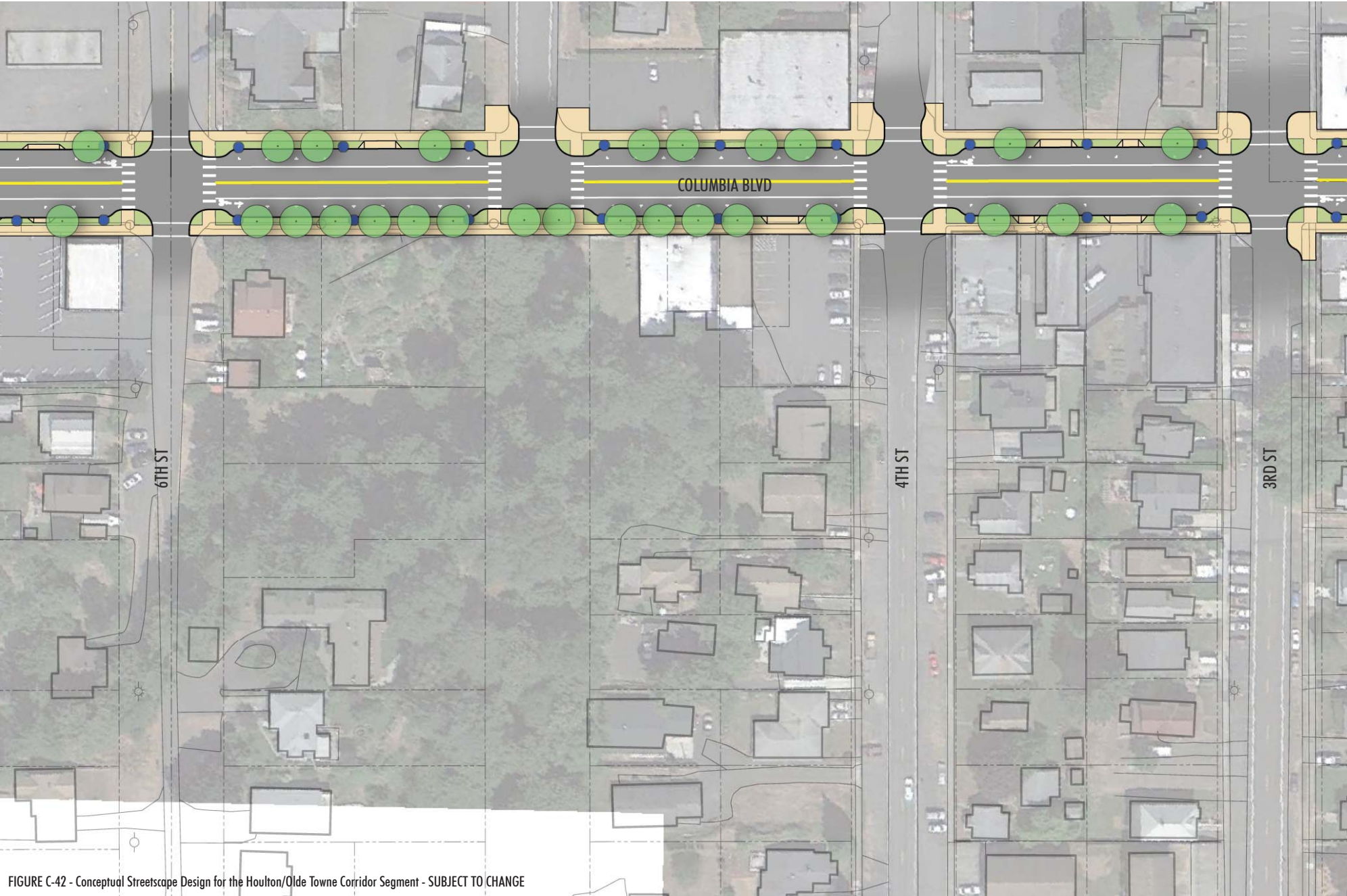
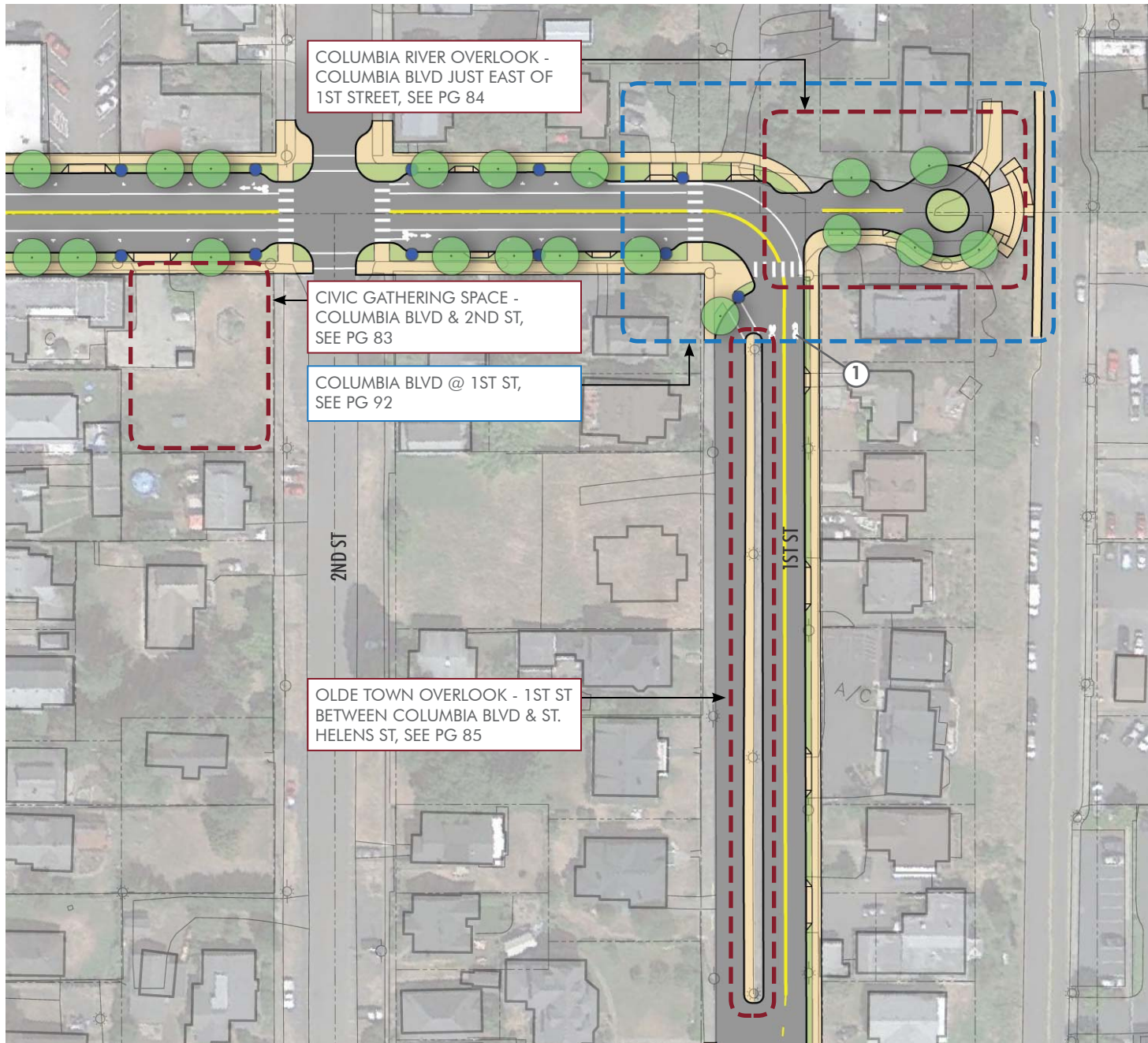


FIGURE C-42 - Conceptual Streetscape Design for the Houlton/Olde Towne Corridor Segment - SUBJECT TO CHANGE



LEGEND: HOULTON & OLDE TOWNE

- NEW SIDEWALK
- PLANTING STRIP/FURNISHING ZONE
- SCULPTURAL ELEMENT
- PARKLET - SUBJECT TO CHANGE
- ENHANCED INTERSECTION PAVING
- NEW CROSSWALK STRIPING
- NEW LIGHT POLE
- NEW TREE
- SPECIAL OPPORTUNITY AREA
- CONCEPTUAL INTERSECTION ENHANCEMENT

KEY NOTES

- ① SHARROWS ON NORTH- AND SOUTHBOUND LANES OF 1ST STREET - SHARED BIKE AND VEHICULAR TRAFFIC.



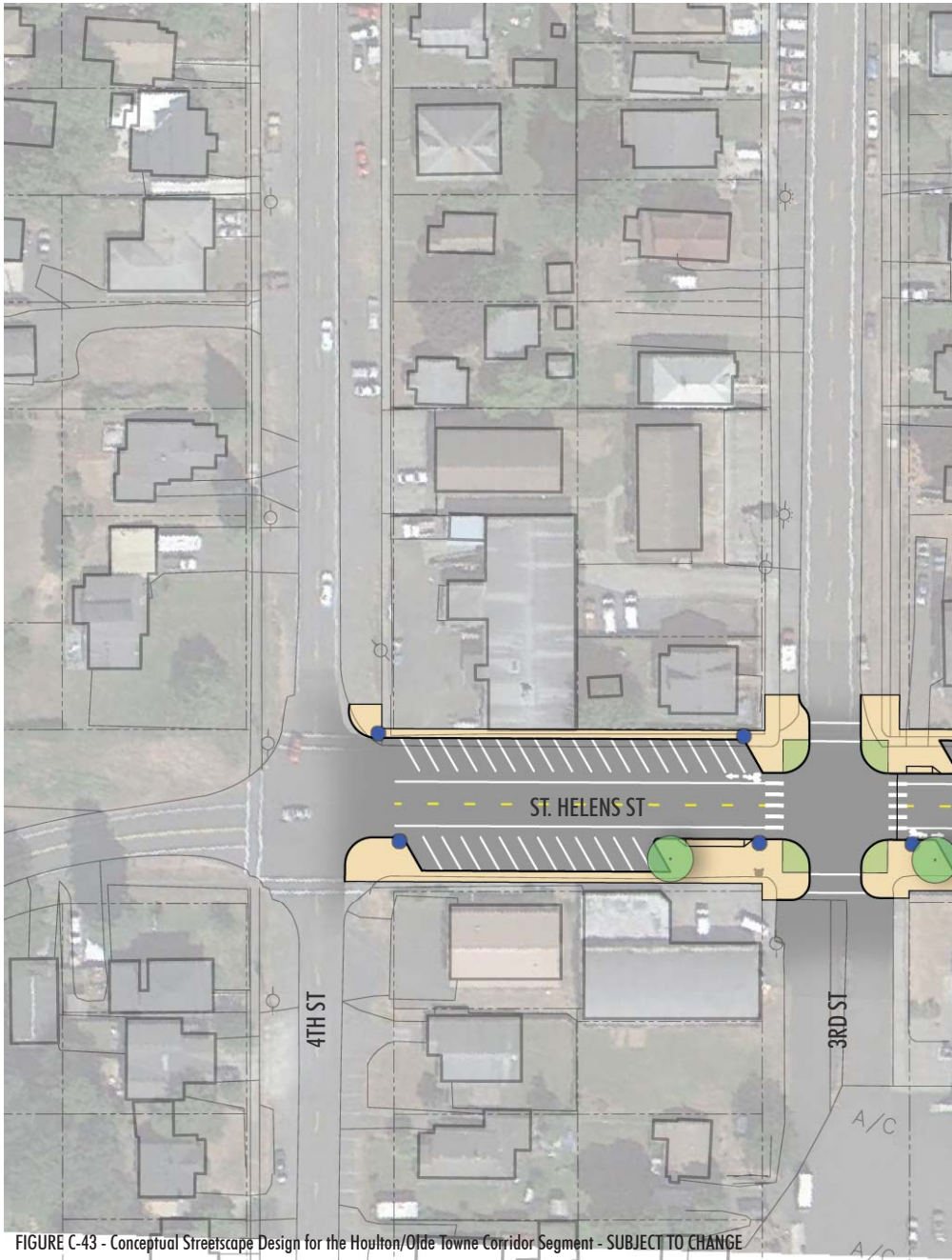
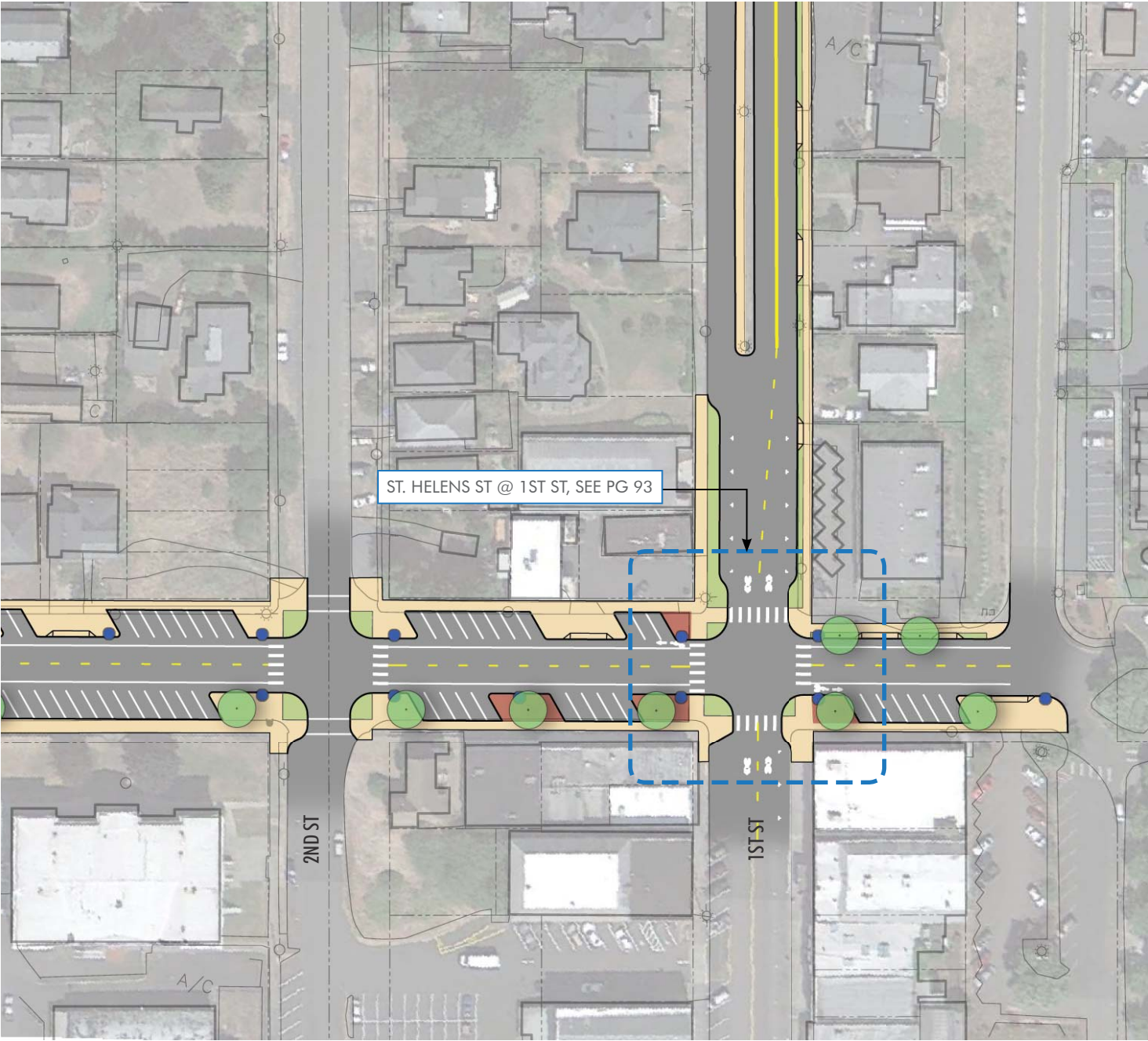


FIGURE C-43 - Conceptual Streetscape Design for the Houlton/Olde Towne Corridor Segment - SUBJECT TO CHANGE



LEGEND: HOULTON & OLDE TOWNE

- NEW SIDEWALK
- PLANTING STRIP/FURNISHING ZONE
- SCULPTURAL ELEMENT
- PARKLET - SUBJECT TO CHANGE
- ENHANCED INTERSECTION PAVING
- NEW CROSSWALK STRIPING
- NEW LIGHT POLE
- NEW TREE
- SPECIAL OPPORTUNITY AREA
- CONCEPTUAL INTERSECTION ENHANCEMENT

PLANS ARE CONCEPTUAL AND SUBJECT TO CHANGE



STREETSCAPE DESIGN CONCEPTS– HOULTON & OLDE TOWNE CORRIDOR SEGMENTS

1. TRAFFIC CALMING FEATURES

Traffic calming measures like bulbouts, mid-block crossings, improved crosswalks, buffered bicycle lanes, and on-street angled-parking areas will encourage slower vehicular speeds and make Houlton and Olde Towne safer and more comfortable for residents, pedestrians, children, bicyclists, and drivers. The following traffic calming features are proposed along Houlton and Olde Towne:

- The design proposes to reduce travel lanes to the recommended width of 12' per the TSP, and dedicate the leftover space to widened pedestrian sidewalks and, where space permits, planting strips and/or furnishing zones on each side of the street.
- To shorten pedestrian crossing distance and help calm traffic, bulbouts are proposed at most intersections throughout these two corridor areas, where adjacent on-street parking areas can accommodate them. Generally these bulbouts work to re-configure on-street parking without eliminating existing spaces, though there are several locations where a minimal loss of on-street parking is required.
- Buffered bicycle lanes, which are conventional bicycle lanes paired with a designated buffer space separating the bicycle lane from the adjacent motor vehicle travel lane and/or parking lane, and are encouraged along St. Helens Street between US 30 and 13th Street, and along Columbia Boulevard between 13th Street and 1st Street. Buffered bike lanes provide greater shy distance between vehicles and bicyclists, allow bicyclists space to pass one another without encroaching on the vehicular travel lane, and encourage bicyclists to ride outside of the "door zone" when the buffer is between parked cars and the bike lane.
- New crosswalk striping and ADA-accessible curb ramps are proposed at all pedestrian crossings throughout the Houlton and Olde Towne corridor areas.
- At key intersections, the design proposes concrete with articulated scoring in the roadway and along crosswalks to reinforce these two corridors as a pedestrian-friendly environment. The change in material from asphalt to concrete alerts drivers as they pass through spaces designed to facilitate pedestrian movement, and helps improve safety throughout the corridor.



FIGURE C-44 - Curb extension (bulbout) example integrated with a stormwater planter - Portland, OR



FIGURE C-45 - Example of a buffered bike lane



FIGURE C-46 - Intersection with enhanced paving example



FIGURE C-47 - Wood bench example

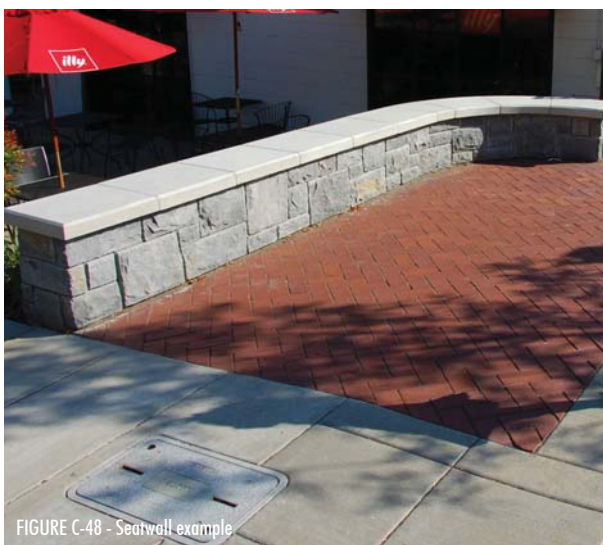


FIGURE C-48 - Seatwall example



FIGURE C-49 - Pedestrian scale lighting integrated with banners located within the furnishing zone



FIGURE C-50 - Custom bike rack



FIGURE C-51 - Benson bubbler drinking fountain - Portland, OR

2. PEDESTRIAN AMENITIES

Streetscape enhancements like street furnishings, street trees and planting areas, and pedestrian light poles create an inviting streetscape for pedestrians and encourages them to linger. This has numerous benefits to a streetscape including safety and economic growth and stability. The following summarizes the proposed pedestrian amenities in the Houlton/Olde Towne corridor segments:

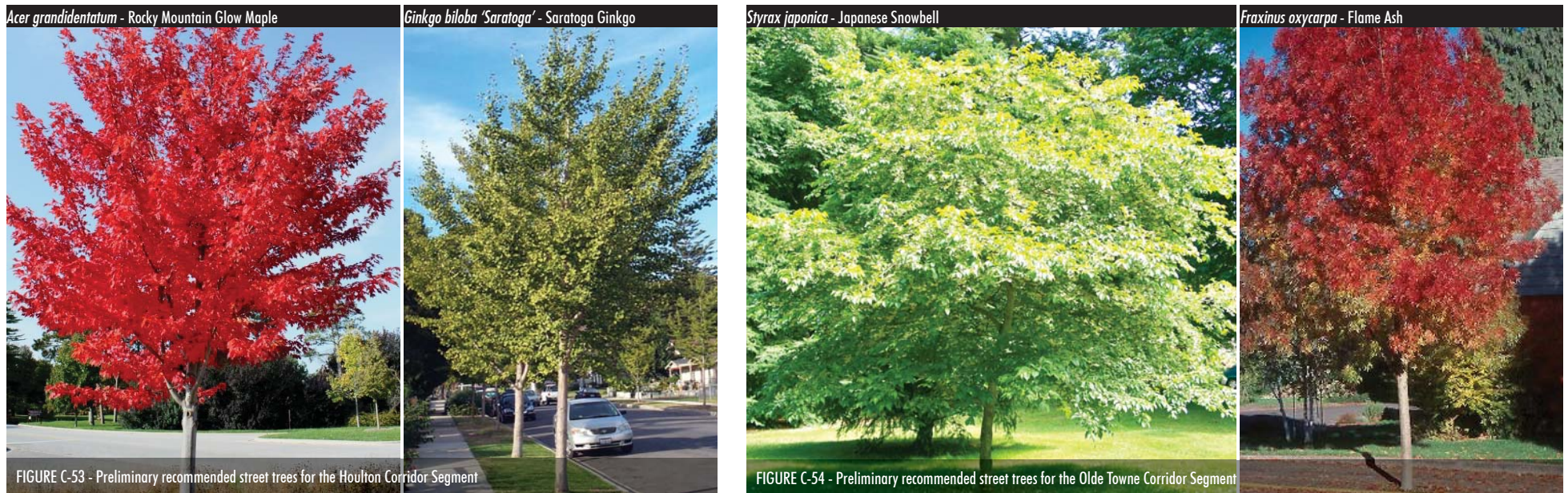
- Street furnishings such as benches, bike racks, and waste receptacles are proposed throughout the corridor within furnishing zones, outside of the path of travel, and in special opportunity areas. The final locations, quantities, types, and styles of these elements will need to be further developed during subsequent design phases, but should generally be of a style and material befitting St. Helens.
- Pedestrian-scale light poles are proposed along each block face throughout the corridor, which will act as an organizing element for the streetscape and have numerous benefits including increased pedestrian safety, economic vitality during evening hours, and increased access throughout the project corridor. These lights are generally 12'-18' in height and should reinforce the character and identity of St. Helens. This design proposes locating one light at each corner near pedestrian crosswalks, and additional lights every 100' minimum.

C. RECOMMENDED CORRIDOR DESIGN OPTIONS: HOULTON & OLDE TOWNE CORRIDOR SEGMENTS

- Street trees are proposed throughout both US 30 and the Houlton and Olde Towne corridor segments. Street trees are an integral component to a successful, vibrant, pedestrian-friendly streetscape. Their social, economic, and environmental benefits include shading streets and buildings, enhancing neighborhood beauty, filtering the air, improving adjacent real estate values, and even reducing crime.
- The requirements for locating street trees can be found in chapter 17.72.035 of St. Helens Municipal Code. In addition to these requirements, the following recommended criteria informed by feedback from the TAC, CAC, Planning Commission, and City Council, are intended to act as a guide for the selection of new street trees along US 30, Columbia Boulevard, and St. Helens Street:
- Select trees to avoid interference with overhead utility lines where applicable;
 - Select trees with canopy widths to work with pedestrian-scale lighting (i.e. ensure that trees do not block light), and utility poles;
 - Select trees with non-invasive roots to minimize impacts to tree well paving and sidewalks;
 - Avoid tree species that cause excessive litter;
 - Select trees to provide color and contribute to neighborhood identity;
 - Select 'business-friendly' trees with airy leaf/branch patterns;
 - Select trees suited for the available planting area to ensure proper root development;
 - Select trees from the City's Recommended Street Trees list in Chapter 17.72 of the Municipal Code that meet the above criteria

Given these criteria, the following is a preliminary recommendation of potential street trees for US 30, Houlton, and Olde Towne Areas:

TABLE C-2: PRELIMINARY LIST OF RECOMMENDED STREET TREES FOR US 30, HOULTON, AND OLDE TOWNE CORRIDOR SEGMENTS		
<u>CORRIDOR SEGMENT</u>	<u>LOCATION</u>	<u>SPECIES</u> (Botanical name - Common Name)
US30	East Side	<i>Acer platanoides</i> 'Schweden' - Schwedler Norway Maple <i>Carpinus betulus</i> - European Hornbeam <i>Gleditsia triacanthos</i> 'Skyline' - Skyline Honeylocust <i>Tilia cordata</i> 'Glenleven' - Glenleven Linden
	West Side	<i>Acer truncatum</i> x <i>A. platanoides</i> 'Warrenred' - Pacific Sunset Maple <i>Acer grandidentatum</i> - Rocky Mountain Glow Maple <i>Cercis canadensis</i> - Red Bud <i>Ginkgo biloba</i> 'Saratoga' - Saratoga Ginkgo
	Medians - Columnar Trees	<i>Acer platanoides</i> 'Columnar' - Columnar Norway Maple <i>Acer rubrum</i> 'Bowhall' - Bowhall Maple
	Medians - Broad Canopies	<i>Acer platanoides</i> 'Schweden' - Schwedler Norway Maple <i>Carpinus betulus</i> - European Hornbeam <i>Gleditsia triacanthos</i> 'Skyline' - Skyline Honeylocust
HOULTON	Under Overhead Power	<i>Acer truncatum</i> x <i>A. platanoides</i> 'Warrenred' - Pacific Sunset Maple <i>Acer grandidentatum</i> - Rocky Mountain Glow Maple <i>Cercis canadensis</i> - Red Bud
	No Overhead Power	<i>Fraxinus ornus</i> - Flowering Ash <i>Fraxinus oxycarpa</i> - Flame Ash <i>Ginkgo biloba</i> 'Saratoga' - Saratoga Ginkgo
OLDE TOWNE	Under Overhead Power	<i>Acer grandidentatum</i> - Rocky Mountain Glow Maple <i>Cercis canadensis</i> - Red Bud <i>Styrax japonica</i> - Japanese Snowbell
	No Overhead Power	<i>Fraxinus ornus</i> - Flowering Ash <i>Fraxinus oxycarpa</i> - Flame Ash <i>Ginkgo biloba</i> 'Saratoga' - Saratoga Ginkgo



C. RECOMMENDED CORRIDOR DESIGN OPTIONS: HOULTON & OLDE TOWNE CORRIDOR SEGMENTS

- Planting areas along streetscape corridors are an effective, attractive way to enhance the pedestrian experience, improve adjacent property values, and indicate a sense of civic care for a neighborhood. Some planting areas can manage stormwater runoff, as described in the last section of this document.

Like street trees, planting areas can take many forms. They can exist at-grade, visually breaking up the paving area and providing focal points of interest, or they can be raised above the grade of the sidewalk in planters to elevate the green to the pedestrian's eye and help to create distinct spaces. They can be containerized, either in pots on or adjacent to sidewalks as the City has done in the Houlton area in recent years, or elevated in planter baskets that hang off of other streetscape elements like light posts or wayfinding signs. Plantings can also be located in roadway medians at busy highway intersections or crosswalks to help with traffic calming and pedestrian safety. Median planting/landscaping on US 30 was identified as a potential option in the St. Helens 2011 TSP.

As with installing street trees, certain site conditions in each of the corridor segments can limit the ability to implement planting areas. Shallow basalt bedrock, vehicular sight lines, and narrow rights-of-way all have an impact on where and how planting areas might be located.



FIGURE C-55 - The existing planting area at Columbia Blvd/St. Helens St. is a good example of planting areas serving as a streetscape focal point



FIGURE C-56 - Stormwater plantings accent a curb extension - Portland, OR



FIGURE C-57 - Streetscape plantings provide the streetscape with a native landscape character - Winters, CA



FIGURE C-58 - Gateway arch marks the transition into an old town neighborhood - Bandon, OR



FIGURE C-59 - Banners on light poles add festivity and reinforce civic identity.



FIGURE C-60 - A community kiosk example



FIGURE C-61 - Example of a downtown wayfinding sign - Breckenridge, CO

3. CIVIC IDENTITY & WAYFINDING

Gateway elements, wayfinding signs, banners, and community kiosks can enhance the civic identity of Houlton and Olde Towne areas, adding vitality and character to its downtown. The following summarizes the proposed elements that contribute to civic identity throughout Houlton/Olde Towne:

- 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 13th Street to mark the arrival to Houlton's commercial couplet, and one at Columbia Boulevard and 1st Street marking the arrival to Olde Towne.
- 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.
- A community kiosk is proposed mid-block on the south side Columbia Boulevard between and 16th Street and 15th Street, adjacent to the St. Helens Post Office. Several community members have expressed a desire for this streetscape element, and confirmed that this location currently acts as a community news and gathering place.

C. RECOMMENDED CORRIDOR DESIGN OPTIONS: HOULTON & OLDE TOWNE CORRIDOR SEGMENTS

4. GREEN STREET STRATEGIES

The Houlton and Olde Towne streetscapes will feature a series of vegetated stormwater planters to capture and infiltrate stormwater run-off from adjacent roadways and sidewalks. These planters are envisioned as structural, landscaped reservoirs used to collect, filter, and infiltrate stormwater run-off and will feature low vegetation that tolerates both drought and inundation; street trees will be planted in their own wells rather than in the planters.

Though stormwater facilities are not located on the plans or sections above, we recommend that vegetated stormwater planters, swales, and rain gardens be integrated into the final streetscape design, where feasible. Reference the City of Portland 2008 Stormwater Management Manual for location, sizing, and design criteria of these Green Street Strategies.

Each of the following strategies for Houlton & Olde Towne must consider the shallow basalt bedrock present throughout the project areas, and the potential impediments this bedrock could have on constructability and long-term performance:

- Rain Gardens
- Stormwater Planters
- Stormwater Infiltration Swales



FIGURE C-62 - Example of a rain garden



FIGURE C-63 - Example of a stormwater planters



FIGURE C-64 - Example of a stormwater swale



FIGURE C-65 - Existing photo of the South Columbia County Chamber of Commerce

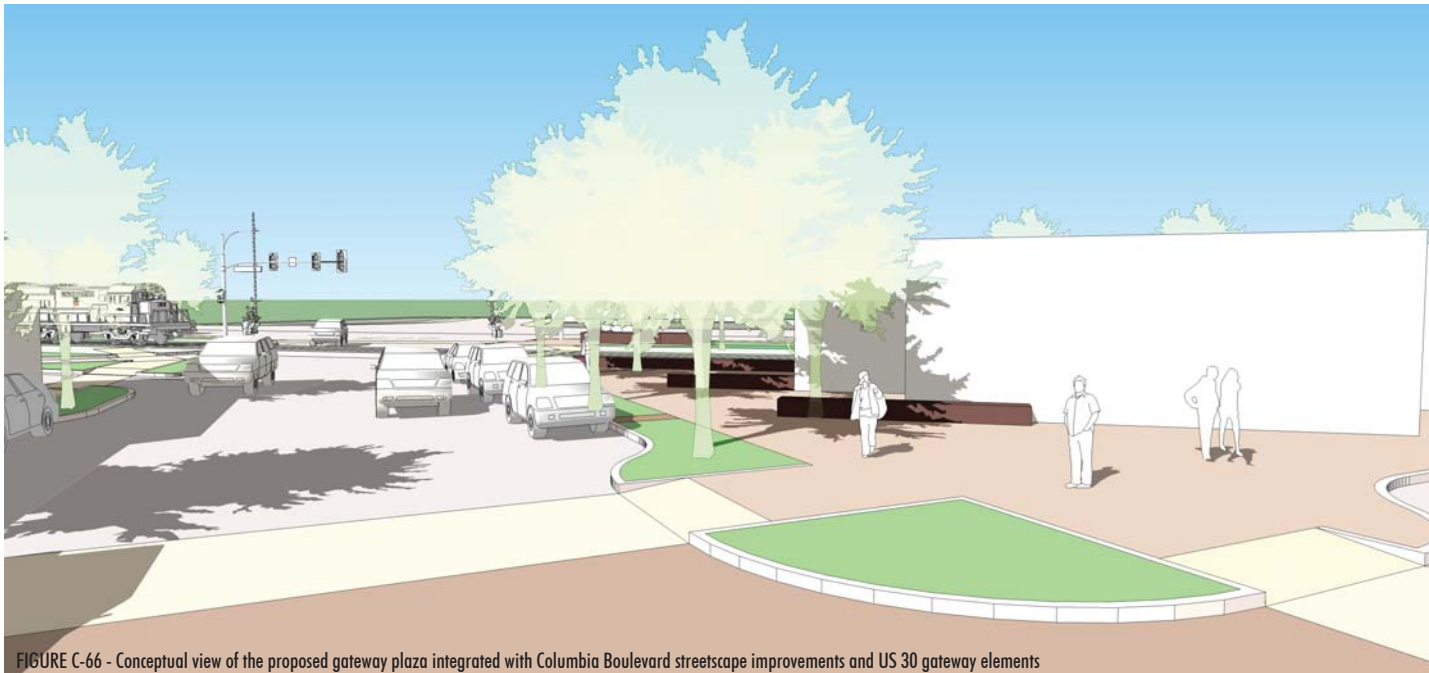


FIGURE C-66 - Conceptual view of the proposed gateway plaza integrated with Columbia Boulevard streetscape improvements and US 30 gateway elements

SPECIAL OPPORTUNITY AREAS

Refer to Figures X-X for locations of Special Opportunity Areas.

1. GATEWAY PLAZA – COLUMBIA BLVD. & MILTON ST. (CHAMBER OF COMMERCE)

The South Columbia County Chamber of Commerce is located just off of US 30 on Columbia Boulevard at Milton Way, and is situated at the front door to St. Helens' commercial core. Recommended intersection and streetscape enhancements adjacent to this site create an opportunity to establish a Gateway Plaza - a space to welcome visitors to relax and orient themselves to the various businesses and destinations throughout downtown St. Helens. Sculptural features that define the US 30 / Columbia Boulevard Gateway could be repeated in this space to further unify this gateway area.

C. RECOMMENDED CORRIDOR DESIGN OPTIONS: HOULTON & OLDE TOWNE CORRIDOR SEGMENTS

2. STORMWATER / INTERPRETIVE GATHERING SPACE – COLUMBIA BLVD. & 14TH ST.

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. According to City staff, this site already serves as a stormwater management facility to some degree. Enhancing its function for this purpose and as a community focal point is recommended.

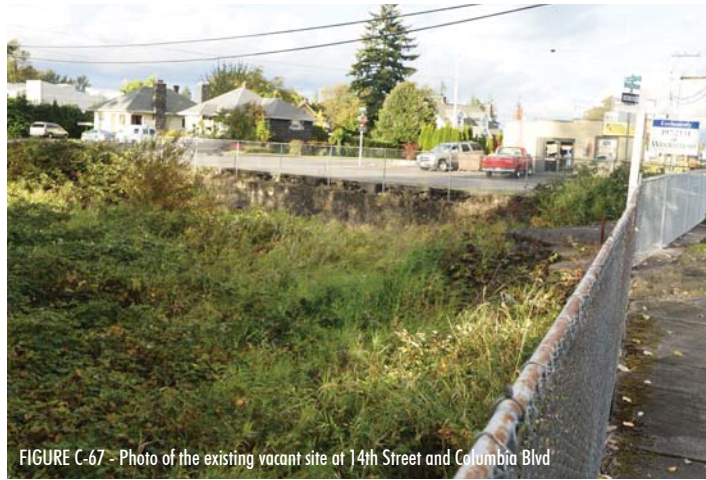


FIGURE C-67 - Photo of the existing vacant site at 14th Street and Columbia Blvd



FIGURE C-68 - Photo of the existing triangular area at 13th Street and Columbia Blvd / St. Helens St

3. CIVIC GATHERING SPACE – COLUMBIA BLVD. & 13TH ST.

A wedge-shaped parcel located at 13th 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 14th 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.

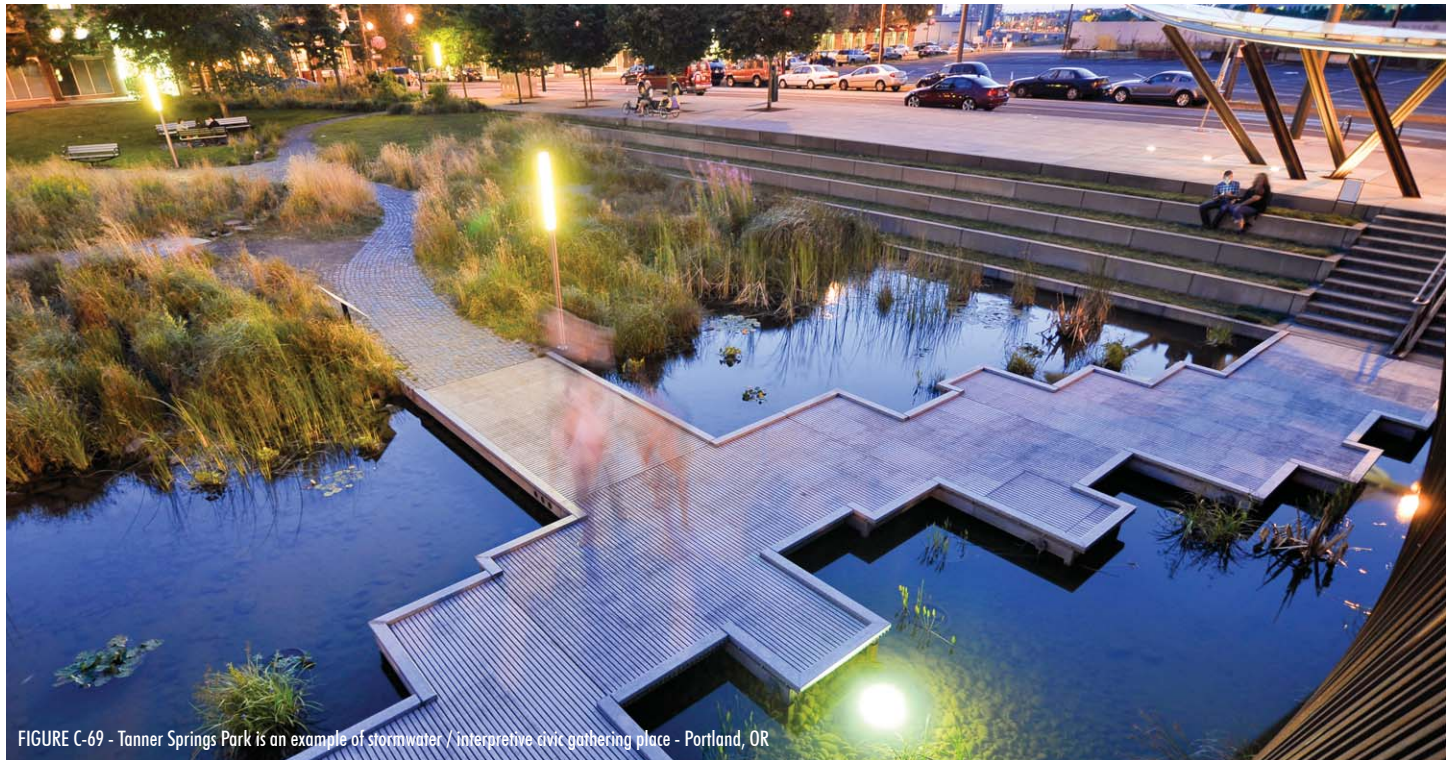


FIGURE C-69 - Tanner Springs Park is an example of stormwater / interpretive civic gathering place - Portland, OR



FIGURE C-70 - Photo of the existing lawn space at Columbia Blvd @ 9th Street



FIGURE C-71 - Photo of the existing lawn space at Columbia Blvd @ 2nd Street

4. CIVIC GATHERING SPACE – COLUMBIA BLVD. & 9TH ST.

A large, elevated lawn area at 9th 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.

5. CIVIC GATHERING SPACE – COLUMBIA BLVD. & 2ND ST.

An existing lawn area at 2nd 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.

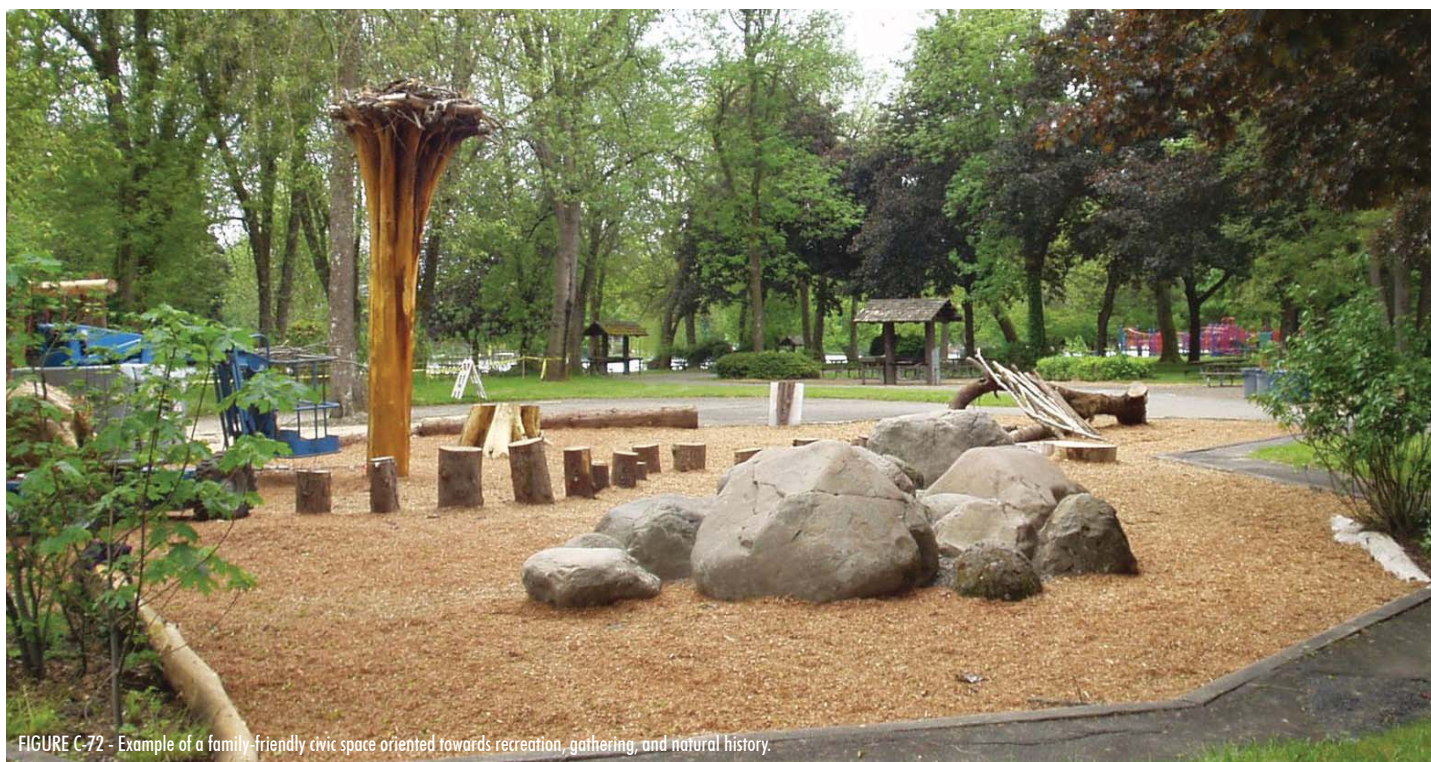


FIGURE C-72 - Example of a family-friendly civic space oriented towards recreation, gathering, and natural history.

C. RECOMMENDED CORRIDOR DESIGN OPTIONS: HOULTON & OLDE TOWNE CORRIDOR SEGMENTS

6. COLUMBIA RIVER OVERLOOK – COLUMBIA BLVD JUST EAST OF 1ST ST.

An existing parking area 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.



FIGURE C-73 - Photo of the existing right-of-way spur just east of the Columbia Boulevard / 1st Street intersection



FIGURE C-74 - Concept view of an overlook feature integrated with pedestrian walkways, on-street parking, planting areas and a vehicular turn around. Existing access to adjacent residences are preserved. SUBJECT TO CHANGE



FIGURE C-75 - Photo of the upper section of 1st Street overlooking Olde Towne, the Columbia County Courthouse, and the Columbia River

7. OLDE TOWNE OVERLOOK – 1ST STREET BETWEEN COLUMBIA BLVD. & ST. HELENS ST.

An elevated portion of 1st 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 sidewalk along the top of the basalt outcrop wall.

CONCEPTUAL INTERSECTION ENHANCEMENTS

As with the US 30 corridor segment, a number of potential improvements have been identified 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 proposed enhancements are shown in Figures ____.

1. COLUMBIA BOULEVARD @ MILTON WAY - This concept illustrates potential enhancements to the Milton Way/ Columbia Boulevard intersection. This concept has been designed 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 as well as to enhance pedestrian and bicycle connectivity to US 30 and to improve parking for the Chamber of Commerce. This concept includes re-aligning the north leg of the intersection further east to provide greater separation between the north and south legs of the intersection, which also creates the opportunity for a pedestrian plaza adjacent to the Chamber of Commerce building. This concept also includes curb extensions on all four quadrants of the re-aligned north leg of the intersection (improving sight lines and shortening crossing distances for pedestrians) and a splitter island at the south leg to provide a refuge for pedestrian crossing Milton Way.



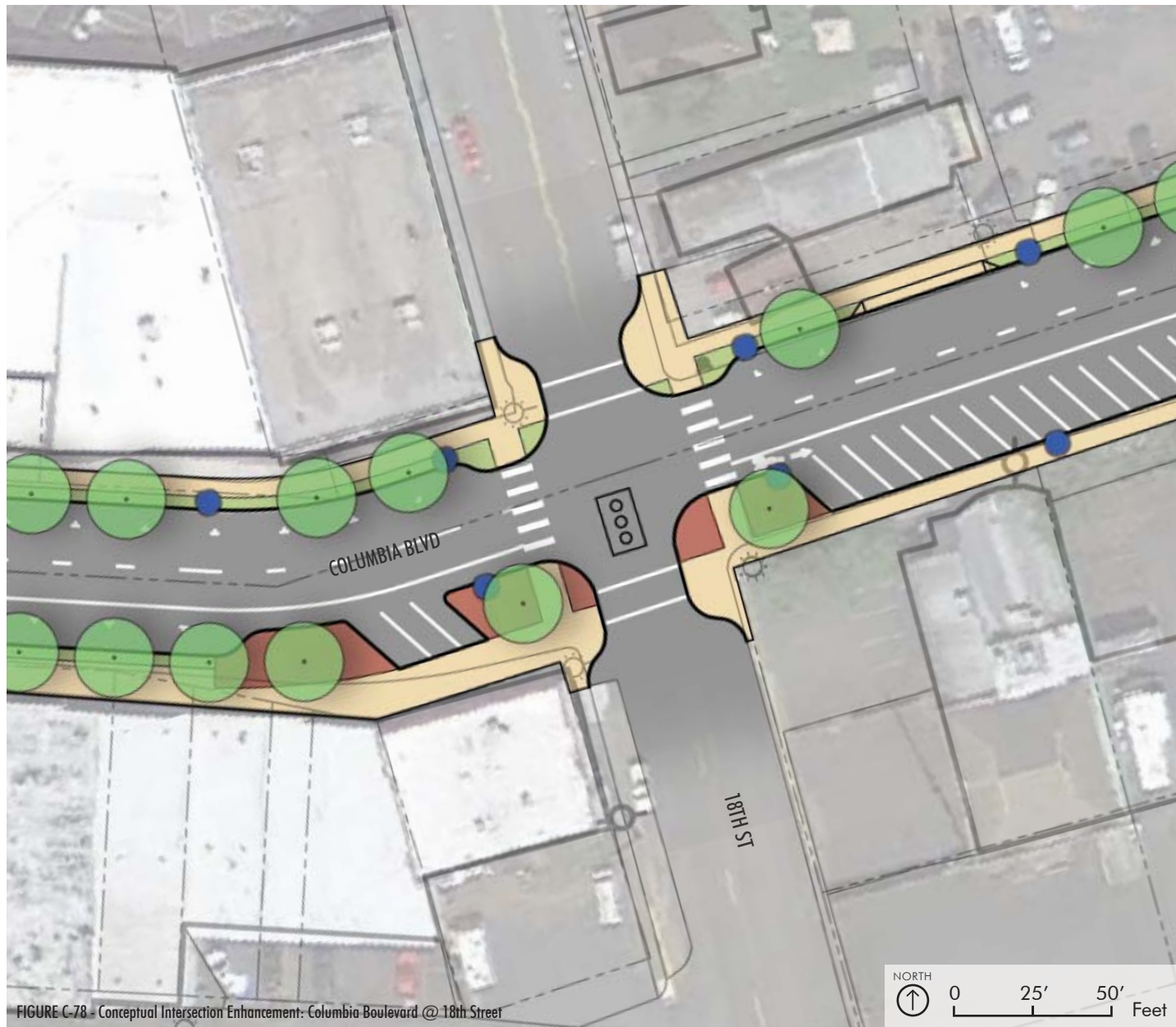


FIGURE C-78 - Conceptual Intersection Enhancement: Columbia Boulevard @ 18th Street

2. COLUMBIA BOULEVARD @ 18TH STREET - This concept illustrates potential enhancements to the 18th Street/Columbia Boulevard intersection as well as the segments of Columbia Boulevard within the Houlton area. This concept includes curb extensions on all four quadrants of the intersection (improving sight lines and shortening crossing distances for pedestrians as well as providing channelization through the intersection). This concept also includes removal of the eastbound right turn-lane to provide wider sidewalks and on-street parking along Columbia Boulevard. Final design of the intersection will need to accommodate truck turn movements toward the Port area.

C. RECOMMENDED CORRIDOR DESIGN OPTIONS: HOULTON & OLDE TOWNE CORRIDOR SEGMENTS

3. COLUMBIA BOULEVARD / ST. HELENS STREET @ 13TH STREET - This concept illustrates a wide variety of potential enhancements to the 14th Street/ Columbia Boulevard, 14th Street/ St Helens Street, and 13th Street Columbia Boulevard intersections as well as the block bounded by 14th Street, Columbia Boulevard, and St Helens Street. This concept has been designed to improve the transition between the one-way segments of Columbia Boulevard and St Helens Street and the two-way segments of Columbia Boulevard. This concept includes removal of the eastbound left-turn lane between 14th and 13th Street and creation of a left-turn lane at the eastbound approach to 14th Street. This concept also includes curb extensions on all four quadrants of all three intersections (improving sight lines and shortening crossing distances for pedestrians) as well as wider sidewalks and on-street bike lanes.



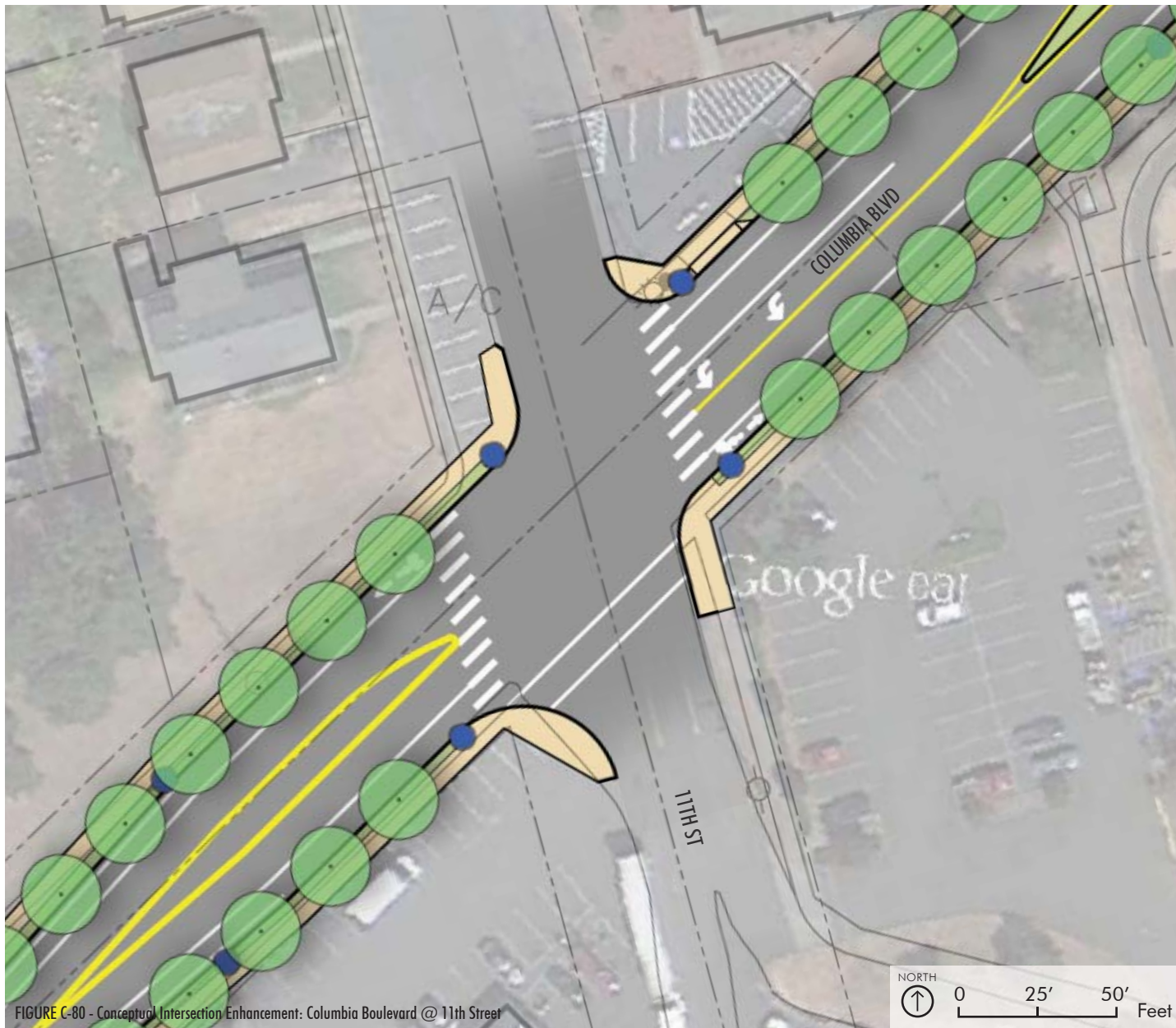


FIGURE C-80 - Conceptual Intersection Enhancement: Columbia Boulevard @ 11th Street

4. COLUMBIA BOULEVARD @ 11TH STREET - This concept illustrates minor variations on the existing lane configurations at the 11th Street/ Columbia Boulevard intersection. This concept has been designed to better transition between the potential cross-sections located east and west of the intersection while accommodating large trucks traveling to/from the south along 11th Street. This concept includes a painted median at the west leg of the intersection as well as wider sidewalks along Columbia Boulevard.

C. RECOMMENDED CORRIDOR DESIGN OPTIONS: HOULTON & OLDE TOWNE CORRIDOR SEGMENTS

5. COLUMBIA BOULEVARD @ 9TH STREET - This concept illustrates minor variations on the existing lane configurations at the 9th Street/ Columbia Boulevard intersection. This concept has been designed to better transition between the potential cross-sections located east and west of the intersection while accommodating vehicles queues and school buses traveling to/from Lewis & Clark Elementary. This concept includes a painted median and striped crosswalk at the west leg of the intersection as well as wider sidewalks along Columbia Boulevard.





FIGURE C-82 - Conceptual Intersection Enhancement: Columbia Boulevard @ 7th Street

6. COLUMBIA BOULEVARD @ 7TH STREET - This concept illustrates potential enhancements to the 7th Street/Columbia Boulevard intersection. This concept has been designed to better transition between the existing cross-section located west of the intersection to the potential cross-section located east while also maintaining access to 8th Street. This concept includes curb extensions on all four quadrants of the intersection (improving sight lines and shortening crossing distances for pedestrians as well as to providing channelization through the intersection).

C. RECOMMENDED CORRIDOR DESIGN OPTIONS: HOULTON & OLDE TOWNE CORRIDOR SEGMENTS

7. COLUMBIA BOULEVARD @ 1ST STREET - This concept illustrates potential enhancements to the 1st Street/Columbia Boulevard intersection as well as the special opportunity area located immediately east of the intersection. This concept has been designed to better transition between the potential cross section along Columbia Boulevard to the existing cross-section along 1st Street while maintaining access to 1st Street (overlook). This concept includes a curb extension in the southwest quadrant of the intersection (improving sight lines and shortening crossing distances for pedestrians as well as providing channelization through the intersection). Final design of the intersection/adjacent roadways should accommodate boat trailers and other large vehicles traveling to/from the boat launch located along River Street.





8. ST. HELENS STREET @ 1ST STREET
 - This concept illustrates potential enhancements to the 1st Street/St Helens Street intersection as well as the adjacent segments of 1st Street and St Helens Street within the Olde Towne area. This concept includes curb extensions on all four quadrants of the intersection (improving sight lines and shortening crossing distances for pedestrians). Shared lane pavement markings are shown along 1st Street and on-street bike lanes are shown along St Helens Street to improve driver awareness of cyclists along the roadways. Many of the potential enhancements shown in this concept could be applied to the intersections/roadway segments located further west along St Helens Street as illustrated in other sections of this report. Final design of the intersection/adjacent roadways should accommodate boat trailers and other large vehicles traveling to/from the boat launch located along River Street.

PHASING RECOMMENDATIONS AND COST CONSIDERATIONS

Streetscape design concepts that are recommended for the Houlton/Olde Towne corridor segment west of 13th Street can be separated into phases by street.

- Columbia Boulevard – Parklets that are recommended for this street in this corridor segment can be implemented first as temporary parklets in on-street parking spaces, then as more permanent parklet features as described above in bulbouts at intersections and at mid-block locations.
- St. Helens Street – The Pedestrian Promenade streetscape design concept is recommended for this street in this corridor segment, with buffered bicycle lanes, widened sidewalks, planting strips, pedestrian scale lighting, and site furnishings.
- Curb extensions – Upgrading the number of intersections shown in this plan with curb extensions will be costly. The consultant team and city staff will work together to identify the highest priority intersections for improvements in the shorter term.
- Painting and striping – Some of the intersection improvements identified in this plan could initially be undertaken through painting and striping, rather than by building new curbs, sidewalks and specially paved areas. This would allow for the City to try these projects out in a less permanent way and ensure that a more permanent design meets the community's needs.

The Pedestrian Promenade streetscape design concept, with buffered bike lanes, is recommended for the Houlton/Olde Towne corridor segment east of 13th Street. It is also recommended to allow for parklets in some locations where appropriate in this corridor segment. In terms of phasing, these parklets can be initially implemented as temporary parklets within on-street parking areas.

A potential range of construction costs is provided for the Houlton and Olde Towne Corridor Segment improvements in Table C-3, below. These potential costs are broken down into Intersection Improvements (including vehicular roadway and pedestrian sidewalk areas), Roadway Improvements (including only vehicular roadway areas), and Pedestrian Improvements (including only pedestrian sidewalk areas). These order-of-magnitude costs were derived from the recommended improvements for each Houlton and Olde Towne corridor segment area described in the pages above, and are presented in a manner that allows for flexibility in determining priority projects for implementation.

**TABLE C-3: ORDER OF MAGNITUDE COSTS FOR
HOULTON & OLDE TOWNE CORRIDOR SEGMENT IMPROVEMENTS**

ITEM	INCLUSIONS	POTENTIAL RANGE OF CONSTRUCTION COSTS	
		LOW	HIGH
<u>INTERSECTION IMPROVEMENTS</u> <ul style="list-style-type: none"> Vehicular Roadway & Pedestrian Sidewalk Areas Assumes a 110'x75' intersection 	<ul style="list-style-type: none"> Curb Extensions (curbs, curb ramps, pedestrian paving areas) Wearing Surfaces (roadway asphalt, striping, pavement markings) Pedestrian Scale Lighting (1 luminaire per corner) and associated switching, conduit, and wiring Site Furnishings (benches & bike racks) Intersection Paving Enhancements (HIGH only) Subsurface Drainage Allowances Mobilization/Demo 30% Design / Construction Contingencies 	\$170,000 / Intersection	\$325,000 / Intersection
		Assumes standard curbs, concrete pedestrian paving areas, asphalt roadway paving, pavement markings and striping, roadway signage, base pedestrian scale lighting options and site furnishings (2 benches and 2 bicycle racks per intersection).	Assumes concrete pavers and/or colored concrete pedestrian paving areas, colored and/or scored concrete intersection paving and crosswalks, higher quality pedestrian scale lighting, seatwalls, and optimal number of benches and bicycle racks (4 each per intersection).
<u>ROADWAY IMPROVEMENTS</u> <ul style="list-style-type: none"> Vehicular Roadway Only Assumes a 200' length block 	<ul style="list-style-type: none"> Curbs Driveways Subsurface Drainage Allowances Wearing Surfaces (asphalt, striping, pavement markings) Signage Mobilization/Demo 30% Design / Construction Contingencies 	\$65,000 / Block	\$70,000 / Block
		Assumes standard curbs, asphalt roadway and parking aisle paving, pavement markings, and roadway signage.	Assumes more curbs associated with mid-block curb extensions, painted bike-lanes, and some customized roadway signage.
<u>PEDESTRIAN IMPROVEMENTS</u> <ul style="list-style-type: none"> Pedestrian Sidewalk Areas Only Assumes a 200' length block 	<ul style="list-style-type: none"> Pedestrian Sidewalk Paving Planting Strips / Furnishing Zone Treatments Site Furnishings (bicycle racks, benches, seatwalls) Pedestrian Scale Lighting (1 luminaire per block face) and associated switching, conduit, and wiring Pedestrian Wayfinding Signage (select locations) Mobilization/Demo 30% Design / Construction Contingencies 	\$115,000 / Block	\$200,000 / Block
		Assumes standard concrete sidewalk paving, low-intensity landscape plantings in planting strips, minimal number of site furnishings, & base lighting options.	Assumes colored and/or scored concrete pedestrian sidewalk paving with unit paver accents, high-intensity planting strip/furnishing zone paving treatments, optimal quantity of site furnishings, seatwalls, and higher quality pedestrian scale lighting.

D. POLICY AND REGULATORY CHANGES

Conclusions from the Land Use and Urban Design report (Technical Memorandum #4) can be used as the basis for potential policy and regulatory changes needed in order to implement the Corridor Master Plan. The following conclusions, by corridor segment, are those that can be addressed through local regulations, particularly City development code.

US 30

- Consider updating standards for parking lot landscaping and design to increase landscaping and improve pedestrian connections.

HOULTON

- Use excess right-of-way to enhance landscaping, as well as bicycle and pedestrian facilities and create a narrower feel to the road that can help slow traffic.
- Provide improved pedestrian amenities (e.g., pedestrian scale light, street furniture, etc.) to create more of sense of place and unique identity for the area; use signage both for this purpose and to guide people to Olde Towne.

OLDE TOWNE

- Ensure that on and off-street parking requirements and availability are integrated to meet the needs of existing and future land uses and businesses in the area.

These conclusions, in addition to elements from the recommended streetscape design options, are discussed further in terms of potential regulatory changes in the following sections.

Land Use Issues and Potential Changes

The following conclusions related to land use were presented in the Land Use and Urban Design report.

- Short of undergoing a very significant transformation through major redevelopment, the vehicle-oriented character of development on US 30 is not likely to change in the near future.
- Houlton is a key shopping and business district for residents and visitors, as well as a gateway to the Olde Towne area. Land use patterns and design standards have the potential to encourage a mix of land uses.
- There are opportunities for more mixed use development in Olde Towne in the future. The area currently has a strong residential character with accents of civic uses and businesses as well as activities on the Riverfront.

A variety of uses can be developed and redeveloped in the corridor given existing land use and zoning designations. Therefore, no land use or zone changes are being developed or proposed as part of the Corridor Master Plan.

The recommended streetscape design options for Houlton and Olde Towne, in particular, have been developed to reflect and complement the variety of existing and potential uses in these areas. For example, parklets recommended in commercial areas would feature more seating and active uses than parklets recommended in residential uses, which would feature more landscaping, passive, and “park-like” uses.

Development Code Changes or Strategies

Potential development code changes and strategies are being developed based on conclusions from the Land Use and Urban Design report and elements from the recommended streetscape design options that relate to the development code. These potential changes and strategies include the following development code concepts:

- Landscaping standards for parking lots and yards fronting US 30, Columbia Boulevard, and St. Helens Street
- Pedestrian connections through parking lots to US 30
- Landscaping in planting strips and bulbouts along Columbia Boulevard and St. Helens Street
- Pedestrian amenities (e.g., pedestrian-scale lighting, street furniture, etc.) along Columbia Boulevard and St. Helens Street
- Temporary parklets in on-street parking spaces

These code concepts are discussed in terms of on-site landscaping standards, pedestrian access standards, planter strip standards, and other code requirements in the following sections.

LANDSCAPING STANDARDS

City Development Code requirements for landscaping and screening (St. Helens Municipal Code (SHMC) Chapter 17.72) generally apply to construction of new structures and to changes of use that either increase on-site parking or loading requirements or change access requirements. The requirements do not apply to single-family and two-family dwelling units or to uses that do not require site design review or a conditional use permit. Landscaping and screening requirements apply to on-site locations. Landscaping in the public right-of-way, namely the planting strip, is addressed by street trees and related requirements discussed in the following sections.

PARKING LOT LANDSCAPING

Pursuant to SHMC 17.72.110(b), the following screening provisions apply to parking areas in St. Helens:

(b) Screening of parking (larger than three spaces) and loading areas (larger than 400 square feet) is required. The specifications for this screening are as follows:

- (i) Landscaped parking areas shall include special design features which effectively screen the parking lot areas from view. These design features may include the use of landscaped berms, decorative walls, and raised planters;*
- (ii) Landscape planters may be used to define or screen the appearance of off-street parking areas from the public right-of-way;*

RECOMMENDATION: For parking lots that front US 30, Columbia Boulevard, or St. Helens Street in the project area, it can be specified which design features (e.g. landscaping or planters, but not walls) shall be required to screen parking lots, as well as any other design details that will serve the vision of the Master Corridor Plan. Buffer requirements should accordingly be set for parking lots fronting an arterial street in Figure 13 of SHMC Chapter 17.72.

FRONT YARD LANDSCAPING

There are no front yard setbacks, per se, required in the Highway Commercial District along US 30 and there is a zero front yard setback in the Houlton Business District and Olde Towne St. Helens District.

SHMC Chapter 17.64 of the City Development Code establishes the setback requirements below for streets of substandard width in the project area, which is not necessarily an identified issue in the project area.

D. POLICY AND REGULATORY CHANGES

- Major arterials (US 30) – At least 50 feet measured from the centerline
- Minor arterials (Columbia Boulevard, St. Helens Street, and Old Portland Road) – At least 30 feet from the centerline
- Collectors (1st Street) – At least 25 feet measured from the centerline

The Development Code allows the maximum setback in Houlton and Olde Towne to be increased if the increased setback is used for pedestrian-oriented amenities, such as a sidewalk cafe, plaza, or courtyard (17.32.170 and SHMC 17.32. 175(4)).

Existing landscaping standards do not set minimum standards (e.g., percentage) for site landscaping based on land use district or proposed use.

RECOMMENDATION: Minimum landscaping standards can be established for front yard setbacks created during development or redevelopment (development subject to site development review pursuant to SHMC Chapter 17.96) along US 30, Columbia Boulevard, and St. Helens Street in the project area. Given the recommendations in this Plan, the most effective use of front-yard setbacks for new landscaping and buffering would be along US 30. While such setbacks would help implement the recommendations in this Plan, setbacks should not be excessive.

PEDESTRIAN ACCESS STANDARDS

SHMC 17.84.050 (Required walkway location) establishes walkway requirements between buildings on a site and between building entrances and streets. It also requires separated or demarcated walkways when crossing motor vehicle traffic ways in parking lots.

Recommendation: To increase pedestrian connections to US 30 for development subject to site development review, requirements can be added specifying the maximum spacing of walkways crossing parking lots larger than a threshold size and connecting to US 30.

PLANTING STRIP STANDARDS

PLANTER STRIPS

SHMC 17.152.060(2) requires at least five feet separation between the curb and sidewalk (i.e., planter strip) for arterials and collectors except in some specified cases. Maintaining sidewalks, planter strips, and curbs is the responsibility of the adjacent property owner.

STREET TREES

Pursuant to SHMC Chapter 12.06 (Street Trees), the City or a development applicant is required to plant street trees where there is a lack of street trees, which is defined as the absence of trees for 100 lineal feet or more along one or both sides of the street. It is the City's responsibility to provide street trees under the following conditions:

- Replaces or substantially repairs 30 lineal feet or more of sidewalk;
- Performs an asphalt overlay of the entire street width for a street section longer than 50 feet; or
- Makes underground utility repairs that require any of the work described above.

Street tree provisions in SHMC 17.72.030 also specify that all development fronting a public or private street, or a private driveway more than 100-feet long, must provide street trees according to a City-approved plan. Exemptions to street tree requirements may be granted if the tree would potentially conflict with existing utility lines, would create visual clearance problems, does not have enough space within the public right-of-way, or could not be supported by the ground/soil conditions within the public right-of-way. In cases of exemption the applicant may be required to provide a landscaping easement outside of the public right-of-way or pay a fee to the City commensurate with the cost of the trees that would have otherwise been required.

Street trees are to be provided in accordance with street tree regulations in SHMC Chapter 17.72. These regulations address the location,

spacing, size, and species of the trees. Recommended street tree species tables (small trees, understory trees, overstory trees, flowering trees, columnar trees, and conifers) are provided at the end of Chapter 17.72.

RECOMMENDATION: Landscaping requirements can be modified to specify trees that are particularly suited to the soils in the project areas, as well as to allow for and/or require other (non-tree) planting in the soil or in planters in the planting strip are part of development subject to site development review. Spacing and other standards also may be adjusted based on the recommendations in this Plan.

PEDESTRIAN AMENITY REQUIREMENTS

Existing street improvement standards require that street lights to be provided “in accordance with regulations adopted by the city’s direction,” and that, at a minimum, “there shall be a street light at each street intersection”(SHMC 17.152.030(24)). There is not guidance about the type or design of lighting. There are also not requirements currently in the Development Code for providing furniture or other pedestrian amenities in the planting strip as part of street improvements.

Recommendation: Provisions could be added to these standards that require development subject to site development review to provide pedestrian amenities in the planting strip—for example, selecting from a menu of amenities such as seating, trash/recycling bins, or public art. Examples of and guidelines for pedestrian-scale lighting, street furniture, and other pedestrian amenities that can be installed in the planting strip should be provided in the City of St. Helens Engineering Department Public Facilities Construction Standards Manual, and a reference to that section in the manual should be included in the street improvement standards in the Development Code.

OTHER CODE REQUIREMENTS

The Development Code also likely will need to be updated in order to allow and implement parklets and, in particular, temporary parklets in on-street parking spaces. Other communities have regulated these types of parklets in street, traffic, and building code and not development code. They have provided a permitting process and guidelines for design, construction, and maintenance.

RECOMMENDATION: Guidelines for parklets, including temporary parklets in on-street parking spaces, should be provided in the City of St. Helens Engineering Department Public Facilities Construction Standards Manual. A reference to that section in the manual should be included in applicable code sections—for example, in SHMC Title 10 (Vehicles and Traffic), Title 12 (Streets, Sidewalks and Public Places), and Title 15 (Buildings and Construction).

[Resources (for reference; to be removed after APG internal review):

Portland permit and fee schedule for temporary use of on-street parking (instituted primarily through traffic code)

<https://www.portlandoregon.gov/transportation/article/174124>

<https://www.portlandoregon.gov/transportation/article/489605>

San Francisco parklet design guidelines

http://sfpavementtoparks.sfplanning.org/docs/SF_P2P_Parklet_Manual_1.0_FULL.pdf

UCLA parklet tool kit

<http://www.its.ucla.edu/research/parklettoolkit.pdf>

Access Management Goals and Approach

Access management goals for roadways within the study area are documented in the City's adopted Transportation System Plan (TSP) as well as in previous technical memoranda associated with this study. The segments of US 30, Columbia Boulevard, and St Helens Street located within the project area currently have multiple access points that do not meet adopted access spacing standards for new construction.

This study does not provide recommendations for making changes to existing private driveways within the project area, nor does it provide guidance on how to address issues with existing access points in the future. As public and private properties within the project area redevelop, ODOT and the City will review the location of existing and proposed access points along their respective facilities. Driveway conformance with access spacing standards will be assessed and a determination will be made as to whether proposed land use changes or other factors necessitate the consolidation or reconfiguration of existing or proposed access points. ODOT and the City retain the legal authority to close or restrict driveways on an as-needed basis if safety or other conditions warrant. In the interim, many of the existing access points that do not conform with access spacing standards may continue to operate acceptably due to: 1) relatively low traffic volumes and travel speeds, 2) separation of left and right-turn movements at many of City's the major intersections, and 3) the presence of a two-way left-turn lane (TWLTL) along US 30 and Columbia Boulevard east of St Helens Street.

This study includes recommendations for installation of a raised median islands along portions of US 30 and for roadway alignment changes along the Columbia Boulevard and St. Helens Street Corridors. The recommended changes shown are conceptual in nature and were developed to minimize potential impacts to existing private driveways. No private driveway closures or turn movement restrictions are proposed along US 30 except at the US 30/Wyeth Street intersection and in areas where signalized intersection queuing currently blocks driveway access. Final design of any median improvements along US 30 will be subject a public review process and that process would be the forum for assessing specific potential property implications. Similarly, any potential future changes to private driveway access along US 30 are subject to a public review and appeal process.

E. NEXT STEPS

Next steps in the Master Corridor Plan project include the deliverables and meeting dates below.

- Meeting with the project advisory committees, Planning Commission, and community about the recommendations in this report, including streetscape design options, Special Opportunity Areas, conceptual intersection enhancements, phasing, and funding.
 - Technical Advisory Committee (TAC)/Citizen Advisory Committee (CAC) meetings – June 30, 2014
 - Planning Commission/public meeting – July 8, 2014
 - City Council briefing – July 16, 2014
- Final Corridor Master Plan Design Options, Evaluation Report, and Visual Simulations – early August 2014
- Draft implementing Policies and Ordinances/Access Management Element – August 2014
- TAC and CAC meetings – September 2014
- City Council update – September 2014
- Draft Corridor Master Plan – October 2014
- Joint Planning Commission/City Council work session – October 2014
- Adoption of Draft Corridor Master Plan, Implementing Policies, and Ordinances – early November 2014
- Planning Commission hearing – November 2014
- City Council hearing – December 2014