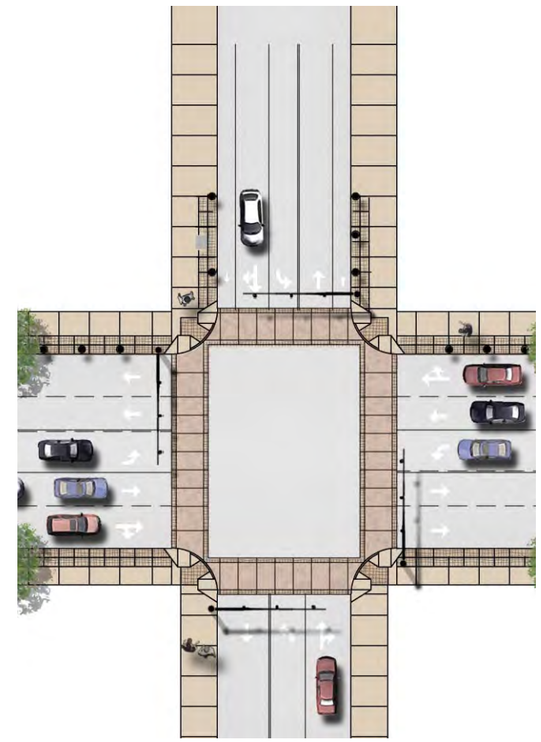
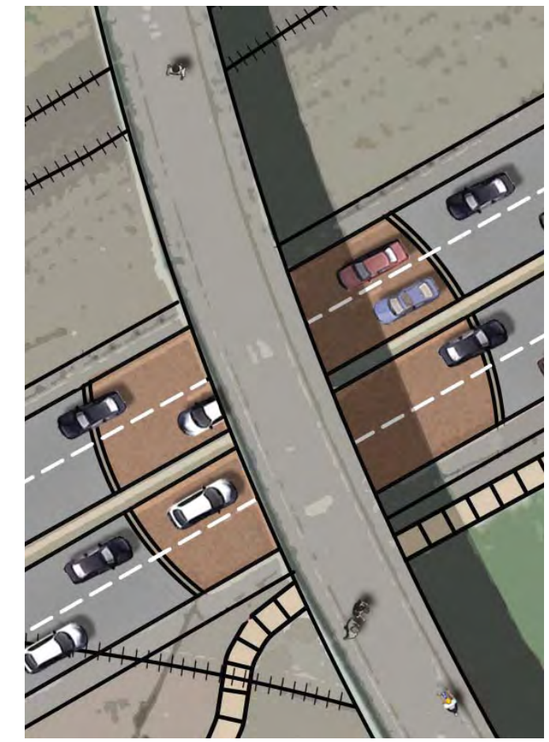
Canby OR 99E Corridor and Gateway Design Plan





City of Canby
OR 99E

June 2012

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Acknowledgements

This project was partially funded by a grant from the Transportation Growth Management (TGM) Program, a joint program of the Oregon Department of Transportation (ODOT), and the Oregon Department of Land Conservation and Development. This TGM grant is financed, in part, by federal Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), local government, and State of Oregon funds. The contents of this document do not necessarily reflect views or policies of the State of Oregon.

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Project Overview

The Canby OR 99E Corridor and Gateway Plan (Plan) was recently completed by the City of Canby and will guide future improvements on the section of OR 99E within city limits. The Plan illustrates potential highway improvements and design concepts for four segments of the highway and three community gateways along OR 99E. The Plan envisions a safe and efficient multi-modal highway with design elements that reflect the city's "Oregon's Garden Spot" theme. Highway design elements enhance motorist awareness as they transition from rural to suburban to urban settings, support community livability, accommodate multi-modal activity, and provide statewide travel and freight movement.

Public and Agency Participation

The Plan was prepared with public and agency participation. It was developed in close coordination with the City of Canby and Oregon Department of Transportation (ODOT) staff and received input and direction from the Gateway Plan Advisory Committee (GPAC), which was formed specifically to advise the City and consultant team in the preparation of this Plan.

The Plan also received input from interested citizens through City staff efforts to visit businesses along the highway, at two public open houses, and at the GPAC meetings, which were open to public attendance and participation. Work sessions and hearings with the Planning Commission and City Council were also held to allow elected officials and citizens to comment on the Plan, make suggestions, voice concerns, and provide feedback.

Planning Context

The Plan supplements the recently adopted *City of Canby Transportation System Plan (TSP)*[1] in three ways. It replaces the standard cross-sections for OR 99E within Canby city limits, refines the non-capacity improvements for the designated Special Transportation Area (STA) on OR 99E between Elm and Locust Streets, and identifies additional corridor improvements outside the STA. Furthermore, the adopted Plan will be forwarded to the Oregon Transportation Commission (OTC) for their approval, as an amendment to the *Oregon Highway Plan (OHP)* as it applies to OR 99E in Canby.

Funding the Improvements

To fund improvements, the City will rely in part on existing sources of revenue identified in the TSP, such as gas taxes, urban renewal funds, and system development charges (SDCs). However, the estimated total cost exceeds that of projected revenue of the City; therefore, additional funding sources will be necessary. Several potential supplemental sources of funding for transportation improvements include state and county contributions, developer exactions, urban renewal, increases to the City's transportation SDC, local improvement districts, special assessments, and grants. Some of these, such as ODOT's Transportation Enhancement (TE) grant may be appropriate for funding improvements identified in the Plan, and could be combined with ODOT highway preservation projects along the highway corridor.

Right-of-Way and Construction

The highway cross-section and gateway design improvement concepts would primarily be constructed within the OR 99E right-of-way and on public structures (such as the Molalla River Pathway Bridge and on lighting and signal poles). However, in some locations, the cross-sections for OR 99E identified in the Plan will require the purchase or dedication of additional right-of-way width (typically ranging from 11- 15 feet) to provide the full build-out of design concepts. Some of this right-of-way acquisition may include easements obtained from private property. Additional right of way may also be needed at intersections to meet standards for truck turning radii. However, to avoid impacting existing development, only partial improvements (for example, narrower sidewalks) could be provided until opportunities arise to acquire additional right-of-way through dedication at the time of site redevelopment or redevelopment.

As properties along OR 99E within the Plan area develop or redevelop, the City's development code will allow the City to require right-of-way dedication and frontage improvements consistent with the adopted corridor segment cross-sections. When only a small portion of a highway frontage improvements would be modified, and the results would be inconsistent with the surrounding conditions, a fee-in-lieu mechanism is being considered for the City of Canby as an alternative to requiring the improvements. With the fee-in-lieu, the City could charge the development an amount equal to the cost of constructing the improvements and then use those funds at a later date to fund the improvement when the timing is appropriate. Currently, the City does not have a formalized process for accepting in-lieu fees for transportation-related improvements.

Time Frame and Phasing

The Plan is intended to be implemented over 20 years longer. Construction of the improvements identified in the Plan is contingent on the availability of funding and will likely occur incrementally. The timing of corridor property development or redevelopment would also affect project feasibility. For example, if a number of properties along one segment of OR 99E were to redevelop and dedicate right-of-way and fees-in-lieu for frontage improvements, the City could prioritize funding improvements for that segment. Timing may also depend on the availability of state and federal funds.

Informally, the City has identified the Molalla River Pathway Bridge improvements and the Downtown and Molla River Pathway Bridge gateways as priority projects; however, these projects are not proposed to be included on the financially constrained project list in the Canby TSP. The implementation of these priority improvements will be based on funding availability.

Gateway Plan Advisory Committee

The GPAC served as the primary citizen and agency reviewers throughout the project and provided valuable input that informed the conceptual designs. Citizens involved included property owners, business owners, and residents. Representatives from the City's Planning Commission, City Council, Chamber of Commerce, and Bike and Pedestrian Advisory Committee also participated. Agency involvement included City staff from Planning, Economic Development, Public Works, the Main Street programs, Canby Area Transit (CAT), City Engineer, andODOT staff.

1 *Canby Transportation System Plan (TSP), December 2010.*

Vision and Guiding Principles

The Vision and Guiding Principles for the Plan were established to provide direction for the development of the Plan and ensure the final product supports the interests of the City of Canby, ODOT, other stakeholders, and the community at large. They reflect the goals and objectives from prior planning efforts in Canby, such as the TSP[2], as well as current state and local policies. As part of the project's public involvement effort, the Vision and Guiding Principles were refined based on input from the GPAC and at public meetings. Improvement alternatives and strategies developed through this project were evaluated for conformance with the final Vision and Guiding Principles, as is demonstrated in subsequent chapters.

OR 99E Corridor and Gateway Plan Vision

The vision for the Plan is a safe and efficient multi-modal highway with design elements that reflect the city's "Oregon's Garden Spot" theme. Highway design elements enhance traveler awareness as the highway transitions from rural to suburban to urban settings, support community livability, accommodate multi-modal travel modes, and provide for regional travel and freight movement.

Guiding Principles

When highway design is integrated with community planning, the result is a balance of technical, functional, and economic considerations that support a "sense of place" for the community. The community is defined by what physically surrounds the roadway because the highway creates both a first and last impression for visitors. To ensure this planning effort achieves its vision, the following guiding principles were developed to serve as evaluation criteria for proposed elements of the Plan. These principles can continue to provide guidance as implementation occurs.

Guiding Principle 1: Design and Character

Design OR 99E to tell a story to highway travelers that Canby is "Oregon's Garden Spot" and is an attractive location to live and recreate.

Objective a. Provide gateways at transition areas or locations that call attention to unique features and destinations.

Objective b. Protect Canby's "small town" character.

Objective c. Beautify the corridor by providing aesthetic improvements and addressing maintenance needs.

Objective d. Promote context-sensitive transportation facility design, which fits the physical context, responds to environmental resources, yet maintains safety and mobility.

Objective e. Ensure that highway design reflects adjacent land uses and has appropriate transitions from rural to highway commercial to downtown commercial settings.

Objective f. Improve the aesthetics and operational coordination between OR 99E and the Union Pacific Railroad (UPRR).

Guiding Principle 2: Multi-Modal Integration

Integrate pedestrian, bicycle, transit, and motor vehicle facilities to provide multi-modal access to local destinations and encourage downtown pedestrian activity.

Objective a. Construct a seamless and coordinated transportation system that is accessible to all members of the community, including children, seniors, and people with low incomes or disabilities.

Objective b. Provide bikeway and walkway systems that recognize their users as "design vehicles" of the transportation system.

Objective c. Create pedestrian and bicycle-friendly streetscapes that reflect the transition from rural to urban conditions.

Objective d. Coordinate with CAT to ensure improvements are consistent with transit plans and objectives, including bus stops and a potential park-and-ride lot or relocated transit center.

Guiding Principle 3: Safety

Develop and maintain a safe and secure transportation corridor.

Objective a. Follow best practices for designing and maintaining safe and secure pedestrian and bicycle ways (or parallel routes) along and across OR 99E and the UPRR.

Objective b. Follow best practices for designing and maintaining safe motor vehicle facilities.

Objective c. Increase the safety of bus stops along OR 99E.

Objective d. Reduce the barrier effect by facilitating bicycle and pedestrian crossings of OR 99E and the UPRR.

2 *Canby Transportation System Plan (TSP), December 2010.*

Guiding Principle 4: Economic Vitality

Enhance the economic vitality of the City and local businesses by efficiently funding and constructing transportation improvement projects that both encourage and serve future growth.

Objective a. Integrate bicycle and pedestrian facility improvements into all street planning, design, construction, and maintenance activities.

Objective b. Coordinate with ODOT to install landscaping and other aesthetic treatments as part of highway projects or as conditions of adjacent development. Establish City-ODOT maintenance agreements for special roadway features and gateways.

Objective c. Minimize private property impacts. This includes ensuring that driveway accesses are not impacted by center medians or street trees along OR 99E.

Objective d. Balance local access with the need to serve regional traffic needs.

Objective e. Ensure that OR 99E supports existing and planned land uses throughout the city, consistent with the City's Comprehensive Plan.

Objective f. Identify and develop diverse and stable funding sources to implement recommended projects in a timely fashion and ensure sustained funding for transportation projects and maintenance.

Guiding Principle 5: Sustainability

Provide a sustainable transportation corridor that meets the needs of present and future generations.

Objective a. Provide transportation options that reduce reliance on the automobile and increase the use of other modes to minimize transportation system impacts on the environment and cultural resources.

Objective b. Practice stewardship of air, water, land, wildlife, botanical, and cultural resources. Take into account the natural environments in the planning, design, construction and maintenance.

Objective c. Incorporate natural stormwater drainage systems and/or reduce surface storm water run-off where feasible.

Guiding Principle 6: Reliability and Mobility

Develop and maintain a well-connected transportation system that reduces travel distance, improves reliability, and manages congestion.

Objective a. Plan for the construction of all applicable Financially-Constrained Solutions Package projects identified in the Canby TSP.

Objective b. Ensure safe, efficient, and continuous operation to allow timely freight movement to, from, and through Canby on OR 99E.

Guiding Principle 7: Plan Process and Implementation

Involve the appropriate stakeholders in the plan process and provide tools to facilitate the implementation of the highway design features.

Objective a. Coordinate and cooperate with ODOT to develop a unified streetscape design concept for the City of Canby. Ensure the transportation improvements included in the plan benefit and are consistent with the standards of the city, region, and state as a whole.

Objective b. Advocate for ODOT programming of identified improvements into the State Transportation Improvement Program.

Objective c. Engage property owners, the public at large, and other stakeholders to obtain feedback and build consensus. Ensure that public input is respected and considered.

Objective d. Prepare implementation and maintenance plans that are consistent with applicable adopted policies and regulations of the City of Canby and ODOT. Ensure the plans clarify roles and responsibilities.

Recommended Design Concepts

Corridor Segments and Cross-Sections

Four corridor segments of OR 99E were identified and are illustrated in Figure 1. Existing land uses, existing right-of-way and roadway conditions, and posted speeds are the distinguishing characteristics.

Segment 1 - Molalla River Pathway Bridge to Elm Street

Segment 1 is located at one end of the STA and is intended to serve the adjacent urban areas while also helping highway traffic transition between the nearby urban-rural areas and downtown Canby. It includes the Berg Parkway Gateway.

Segment 2 - Elm Street to Locust Street

The City of Canby TSP recommended the establishment of a Special Transportation Area for OR 99E between Elm Street and Locust Street, which was recently approved by the OTC. The STA designation provides greater flexibility for streetscape design and is supportive of a multi-modal downtown. The City's vision is for a more pedestrian friendly highway with narrower travel lanes, wider sidewalks, reduced speeds, and features to improve pedestrian crossings.

Segment 3 - Locust Street to Molalla River Pathway Bridge

Segments 3 is located at one end of the STA and is intended to serve the adjacent urban areas while also helping highway traffic transition between downtown Canby and the nearby urban-suburban areas. It includes the Molalla River Pathway.

Segment 4 - Molalla River Pathway Bridge to Territorial Road

Segment 4 is located in the suburban-rural transition area on the east side of OR 99E through Canby. There is future development potential along the southeast side of the highway in this section. However, on the northwest side, the UPRR line runs immediately adjacent to the highway and precludes development.

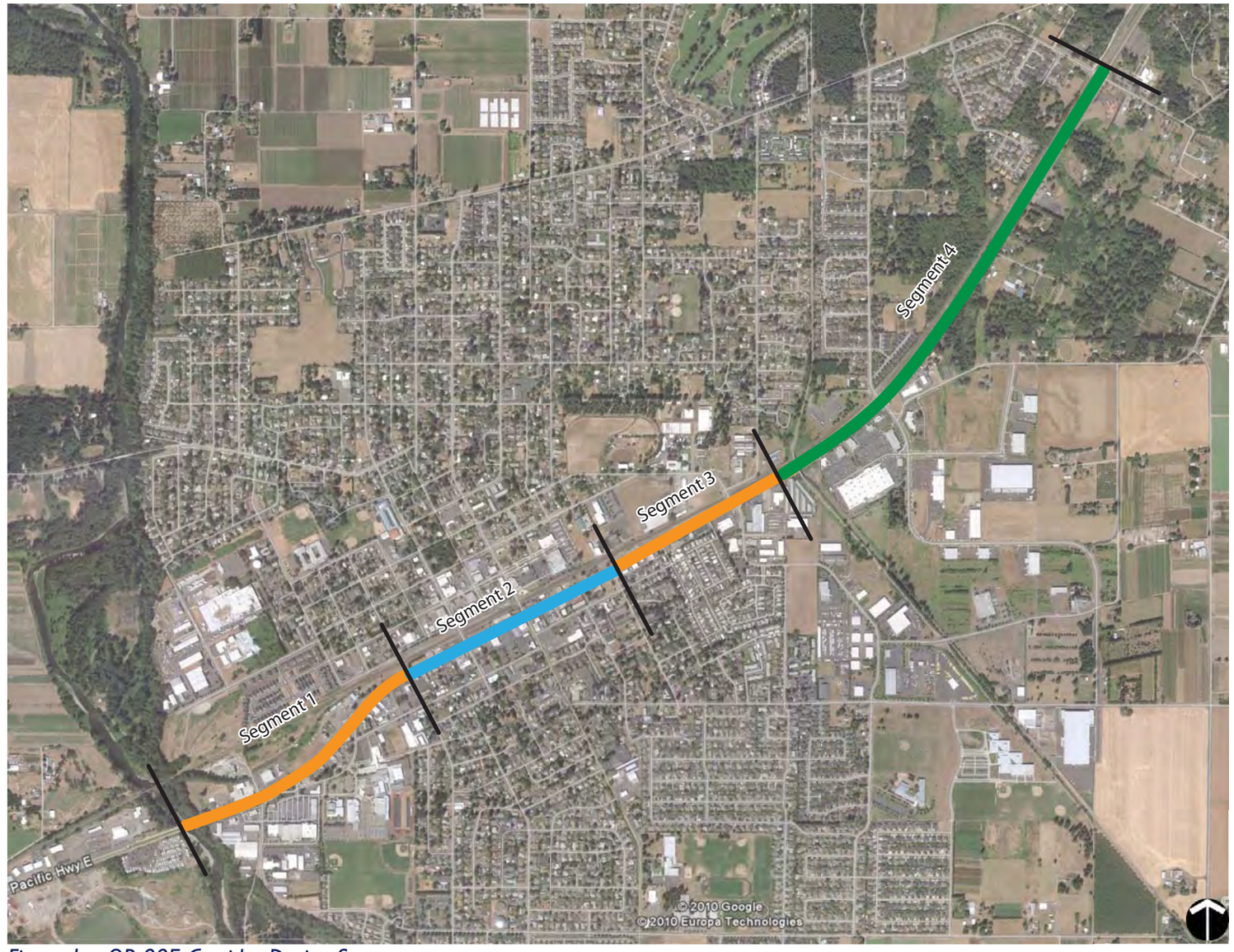


Figure 1 – OR 99E Corridor Design Segments

Recommended OR 99E Cross-Sections

Cross-section standards have been developed for each corridor segment. Segment 1 and 3 will have the same cross-section, which is consistent with the *ODOT Highway Design Manual* standard. Segment 2 through the STA will require a design exception, which has received preliminary support from ODOT. Table 1 lists the highway segments and associated cross-section standards.

Table 1: OR 99E Highway Segments

Highway Segment	Location	General Description	Cross-Section Standard
Segment 1	West City Limits to Elm Street	Urban area outside the STA	Shoulder Bike Way
Segment 2	Elm Street to Locust Street	STA through downtown	Wide Sidewalks for Pedestrians and Bicycles
Segment 3	Locust Street to the Molalla Forest	Urban area outside STA with adjacent railroad track on north side	Shoulder Bike Way
Segment 4	Molalla River Pathway Bridge to East City Limits	Rural-urban transition area with adjacent railroad track on north side	ODOT Urban Standard for 45 MPH

Cross-Section Design Considerations

The following design considerations were factors in developing and apply to all three OR 99E cross-sections. They reflect ODOT functional requirements and design standards, community aspirations and preferences for specific design features that were initially proposed.

Bicycle Facilities. State law requires that bicycles be accommodated on arterials and collectors, such as OR 99E, or on approved alternate routes. Using the railroad right-of-way to construct a multi-use trail (as recommended in the City's TSP) subsequently was determined to be infeasible. In addition, while it would be beneficial to accommodate bicyclists on NW/NE 3rd Avenue and SW/SE 2nd Avenue, ODOT staff did not consider these alternate bike routes to be adequate to eliminate bike facility needs on OR 99E. Bikeway-shoulders also provide a place for vehicle breakdowns out of the travel lanes.

Bike facilities along OR 99E considered include standard bike lanes, buffered bike lanes, a cycle track (which is located on one side of the road and serves two-way bicycle traffic), or wide sidewalks. Based on public and ODOT feedback, the recommendation is to accommodate bicycles by providing a wide sidewalk on the north side in the STA and bike lanes-shoulders on the other segments. Crossing treatments (to connect the eastbound bike lanes on the south side of OR 99E to the wide sidewalk on the north side of OR 99E) and bike ramps between the bike lanes and sidewalks (which may require additional sidewalk width) will need to be provided at Elm Street and Locust Street.

Freight Accommodations. OR 99E is a freight route on the national highway system. The ODOT Freight Advisory Committee has reviewed and approved the recommended OR 99E cross-sections, and the ODOT Region 1 Freight Mobility liaison has been engaged. To ensure that there are no freight capacity reductions introduced by highway improvements, all curb-to-curb distances must be greater than the existing pinch points that exist at the Molalla River Pathway Bridge on the west end of town. In addition, adequate turning radii must be provided where City truck routes intersect OR 99E (e.g., Elm Street, Pine Street, and Sequoia Parkway).

On-street parking. ODOT would allow on-street parking in sections of OR 99E where speeds are at or below 35 mph. The community did not support on-street parking on OR 99E due to the motor vehicle speed and heavy truck volumes.

Transit. Bus pull-outs may be incorporated into the cross-sections in the future, but no specific locations have been identified at this time.

Railroad Quiet Zone. The City is working with Union Pacific to obtain a Quiet Zone designation through town. Therefore, planned railroad crossings improvements should facilitate achieving a quiet zone. Additional discussion regarding a Quiet Zone is provided in the Canby TSP.[3]

Overhead Utilities. The goal is to replace overhead utility poles and power lines by underground power lines when feasible with highway reconstruction (i.e., it can be coordinated with utility providers and accommodated within project budget). However, this is not expected to be feasible for the high-voltage steel utility poles on the north (railroad) side of OR 99E, where poles are expected to be located within or next to the sidewalk area.

Medians. The community did not generally support raised medians on the highway as they would limit driveway access. There was, however, support for a pedestrian refuge island at Locust Street to provide safer crossing opportunities and for a short median as part of the Berg Parkway Gateway.

Bioswales. The community did not express interest in incorporating bioswales to manage and treat stormwater run-off within the OR 99E right-of-way.

Segment 1

Segment 2

Segment 3

3 *Canby Transportation System Plan (TSP), December 2010.*

Recommended Design Concepts

Corridor Segments and Cross-Sections

OR 99E is a state highway so development of proposed roadway cross-sections was coordinated with multiple ODOT disciplines (e.g., preliminary design, bicycle and pedestrian program, freight mobility, planning, and District 2B). Their technical review was necessary to define the mobility parameters, highway speeds, design speeds, baseline over-dimensional freight, and highway classifications for OR 99E that affect design of any new features within the right-of-way. Coordination included formal meetings with ODOT staff and continued meetings and correspondence with ODOT design staff to review cross-section alternatives—with special emphasis placed on the STA—that would be acceptable to ODOT. The graphics to the right show the recommended cross-section for each of the corridor segments that would be supported by ODOT. Additional information about the cross-section is provided in the notes.

Segments 1 and 3 - Urban Areas Outside the STA

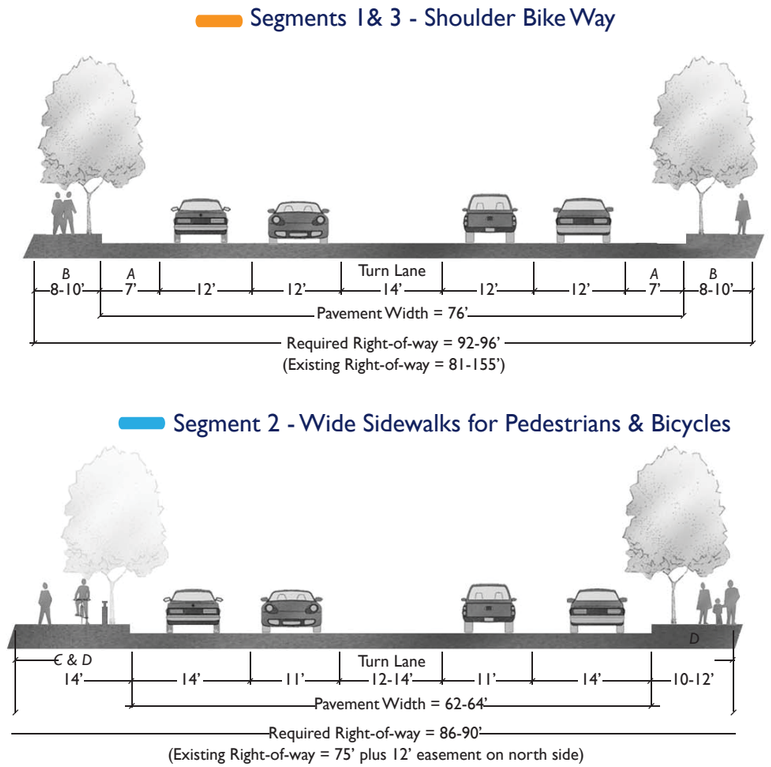
In these segments, the roadway cross-section needs to facilitate transitions into the downtown focused STA as well as back out of the urban business environment and into a more rural highway context. How to accommodate bicycle travel was one of the primary design considerations. Buffered bike lanes were initially considered for these highway segments, and supported by ODOT. However, due to increased right-of-way needs, the GPAC did not support the buffered bike lanes option. The roadway shoulder, which serves as a break-down lane for temporarily disabled vehicles, will provide the bikeway.

Segment 2 - Special Transportation Area

The recommended STA cross-section has a 14-foot wide sidewalk on the north (railroad) side of the highway and is expected to best meet the City's objectives for the STA. ODOT has reviewed the concept and indicated their support of a design exception needed to eliminate the standard shoulder-bikeway. Two other potential cross-sections for the STA were identified during the course of the project and were also approved by ODOT for the City's consideration (see Evaluation Report in the Technical Appendix provided as a separate document). One option was to use the standard STA cross-section indicated in the TSP. A second option was to add a 2-foot striped buffer to the bike lanes. However, the improvements supported by the GPAC and community input are reflected in Figure 2.

Segment 4 - Rural-Urban Transition

The recommended cross-section for this highway segment is based on higher vehicle speeds. The wider and striped bike lane for cyclists and the clear zone setback for vertical elements such as street trees are both reflections of safety concerns at posted highway speeds of 45 mph. This corridor segment is likely to see the adjacent land to the south develop in the future. No other optional cross-sections were considered during the planning process.



Notes:

A) Roadway shoulder, and bikeway

B) Sidewalks on both sides narrow to approximately 5-6' at right-of-way pinch-points

C) Wide sidewalk on north side is intended to be used by pedestrians and bicyclists

D) Sidewalks on both sides narrow to approximately 9-10' at right-of-way pinch-points

For segments 1,2 and 3 approximately 11-15 feet of total right-of-way would need to be acquired to fully implement the cross-sections. Right-of-way acquisition will occur on both sides of OR 99E. Specific locations and property impacts will be identified during future planning.

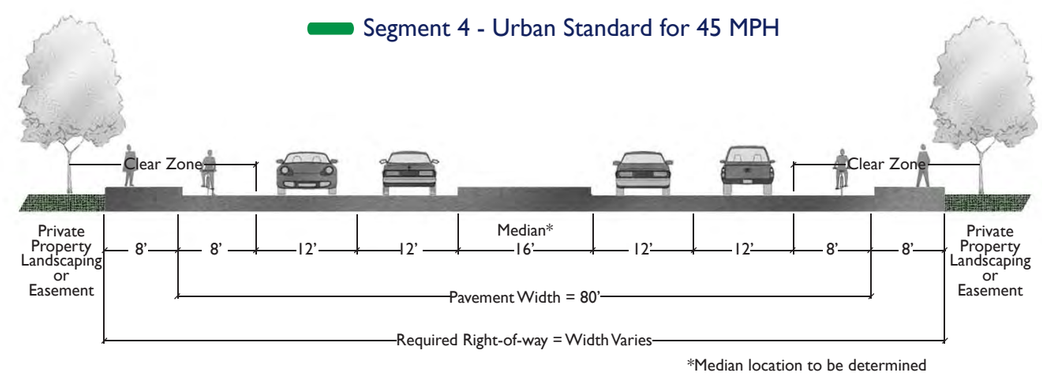


Figure 2 – Corridor Segment Cross-Sections

Gateways

Figure 3 – Corridor Gateways

The highway offers locations for two types of gateway treatments for Canby. Community gateways are best located near the city limits on the rural-to-urban transitional segments. For travelers, these gateways will announce arrival into the community and become highway landmarks over time. A Downtown Gateway will be a visual marker for the uniqueness of the STA segment and can reinforce awareness of downtown. The following themes for OR 99E gateway locations were developed with community input:

Garden Spot Theme. Highlights Canby as "The Garden Spot" using landscaping as an important element, provided a stable maintenance funding source can be identified.

Downtown Gateway. Gateway features should be consistent with styles used in other City design projects, particularly the NW 1st Avenue improvements and on decorative fencing for the railroad right-of-way. Use simple designs and continuous elements.

Size of Features. The scale of the gateway features needs to match vehicle speeds, allowing them to been seen while not distracting drivers.

Community Art. The artistic elements of the gateways could be prepared by local artists, through a submission and selection process that involves interested citizens.

Maintenance. Maintenance of landscaping and other non-standard features will be City of Canby's responsibility. This should be carefully considered when any gateway improvements are made, and a funding source should be identified.

Implementation Priorities. The Downtown Gateway should be constructed first if funding becomes available. However, if funding specific to Molalla River Pathway Bridge Gateway is identified first, then it should be constructed while funding for the Downtown Gateway is sought. The Berg Parkway Gateway is lowest priority.

Existing Berg Parkway Gateway

Existing Downtown Gateway

Existing Molalla River Pathway Bridge Gateway

Recommended Design Concepts

Molalla River Pathway Bridge Gateway

The Molalla River Pathway Bridge (also known as the Logging Road Trail Bridge Path - see Figure 10) provides an exceptional opportunity to create a new community gateway on the east side of Canby. The gateway will alert motorists that they are entering Canby and should prepare for a business and downtown environment. Pedestrians and cyclists routinely use the pathway, which enhances the gateway significance. The bridge needs to be re-painted, so it would be beneficial for the gateway treatments to be installed at the same time as the bridge painting if the necessary funding sources are available.

The design should reflect artful blending of two themes: Canby as "The Garden Spot" and as a "gateway." It should include the following design elements:

- Continue the decorative railroad fencing and traditional theme from the Clackamas County Fairgrounds to the bridge (agricultural/garden motifs);
- Pedestrian-scale lighting on the bridge walkways and along the pathway approaches to the bridge;
- Architectural accent lighting for the bridge structure;
- Column decoration using stonework (similar to the Clackamas County Fairgrounds sign)[4] with possible architectural lighting on the columns;
- Enhance the bridge with artistic metal work consistent with "The Garden Spot" theme (using a competitive artistic design process);
- Decorative paving consistent with other gateways (ensure simple designs and durable materials); and
- Landscaping[5] (removal of the existing vegetation around the bridge abutments and replacement with attractive gateway landscaping).

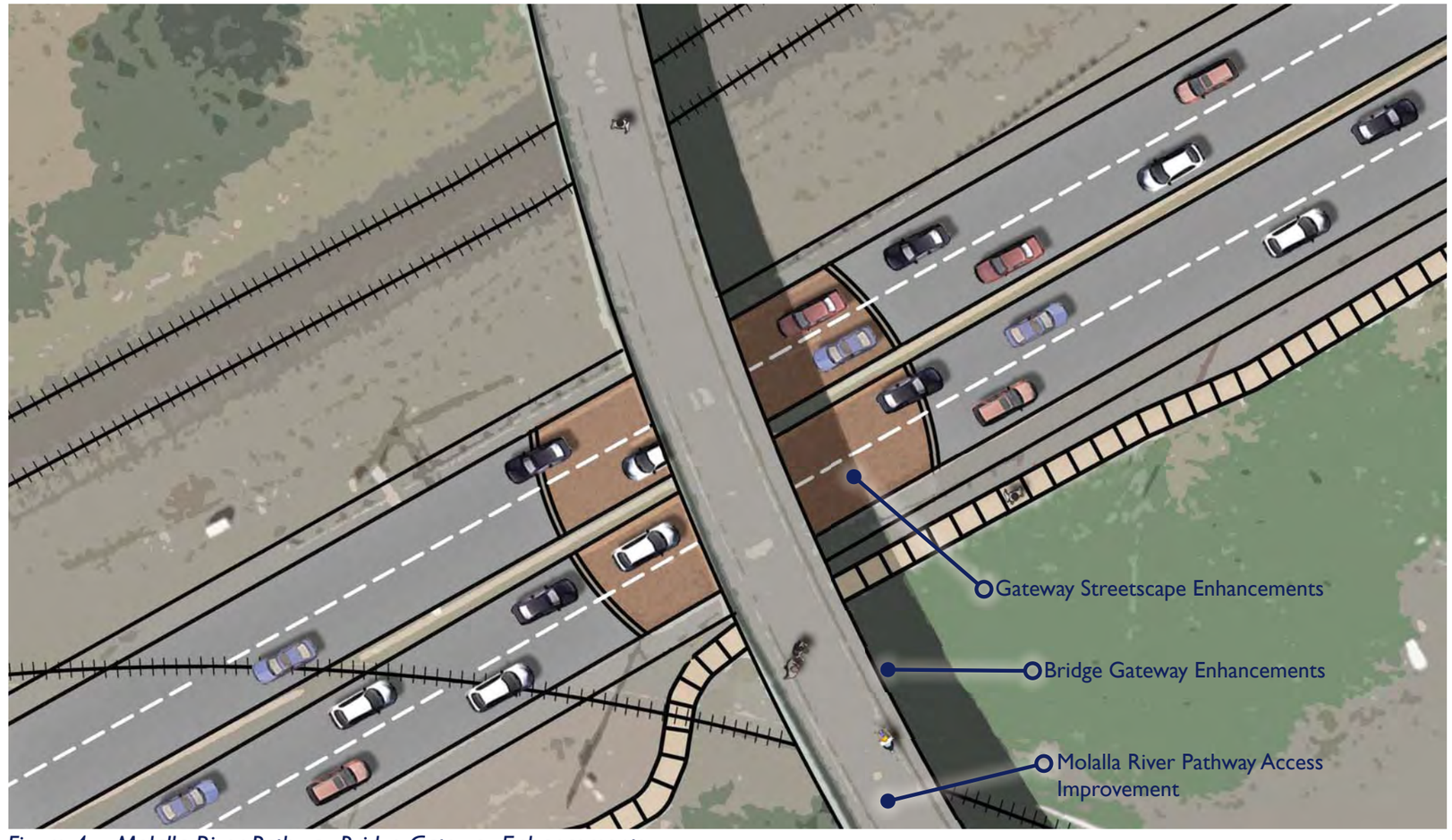


Figure 4 – Molalla River Pathway Bridge Gateway Enhancements

[4] *Confirmation would be needed that applying this type of material to the bridge would not compromise any structural or seismic qualities or impeded visual inspections of the bridge's condition.*

[5] *Implementation of new landscaping should take place only when an on-going maintenance fund has been identified and approved by City Council.*

Molalla River Pathway Bridge Gateway - Decorative Fencing

Figure 5 – Opportunity to add Decorative Fencing

Traditional Design Elements

The addition of decorative fencing to the existing bridge barrier is a key opportunity to create a gateway presence at the trail bridge over OR 99E. Many styles of fencing were presented by the consultant team and considered by the GPAC and the public. A traditional looking, picket-style fence, fabricated from tubular steel, was the most widely supported option. The fence should be designed and sized with details that are complementary to ornamental steel fencing installed along the railroad tracks. This style of fencing will also be cognitively consistent with many of the traditional downtown design elements along NW 1st and NW 2nd Streets. Once the design and materials for the fencing have been selected, the bridge barrier can be repainted in a complementary color.

Traditional Design Elements and Materials

Picket style fencing similar to railroad fencing

Architectural iron work added to picket style fencing

Recommended Design Concepts

Molalla River Pathway Bridge Gateway - Decorative Fencing

Garden Design Elements

The theme of Canby as "The Garden Spot" also inspired several options for ornamental bridge fencing. One approach was to express that by referencing the agricultural history, perhaps including elements of a covered bridge. However, there was preference for elements more suggestive of garden flowers and vines. It was suggested that these elements could be better integrated with the more simple design and proportions of the traditional fence. Some consideration was also given to using metal flower-design sculpture for "landscaping" around the bridge, especially if actual landscaping around the bridge abutments could not be included due to lack of stable maintenance funding.

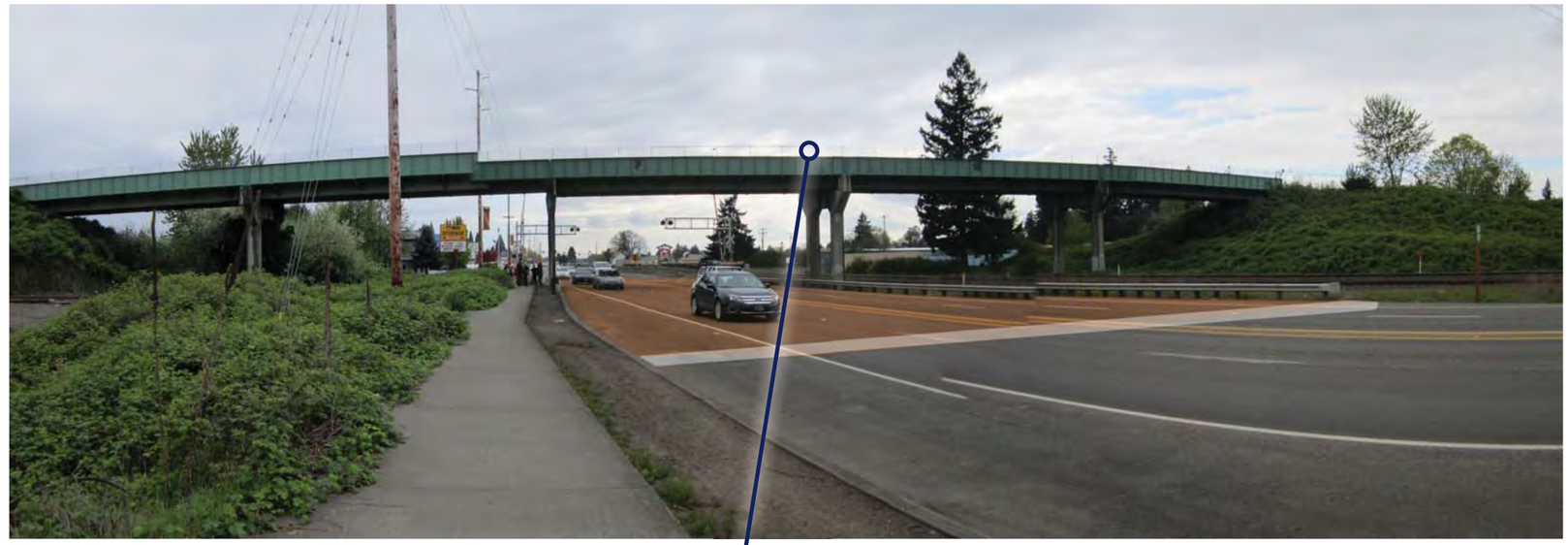


Figure 6 – Opportunity to add Decorative Fencing

Decorative Fencing with Garden or Artistic Themes

Flower and vine metal work

Agriculture metal work

Metal decorative additions

Metal decorative silhouettes

Molalla River Pathway Bridge Gateway - Lighting

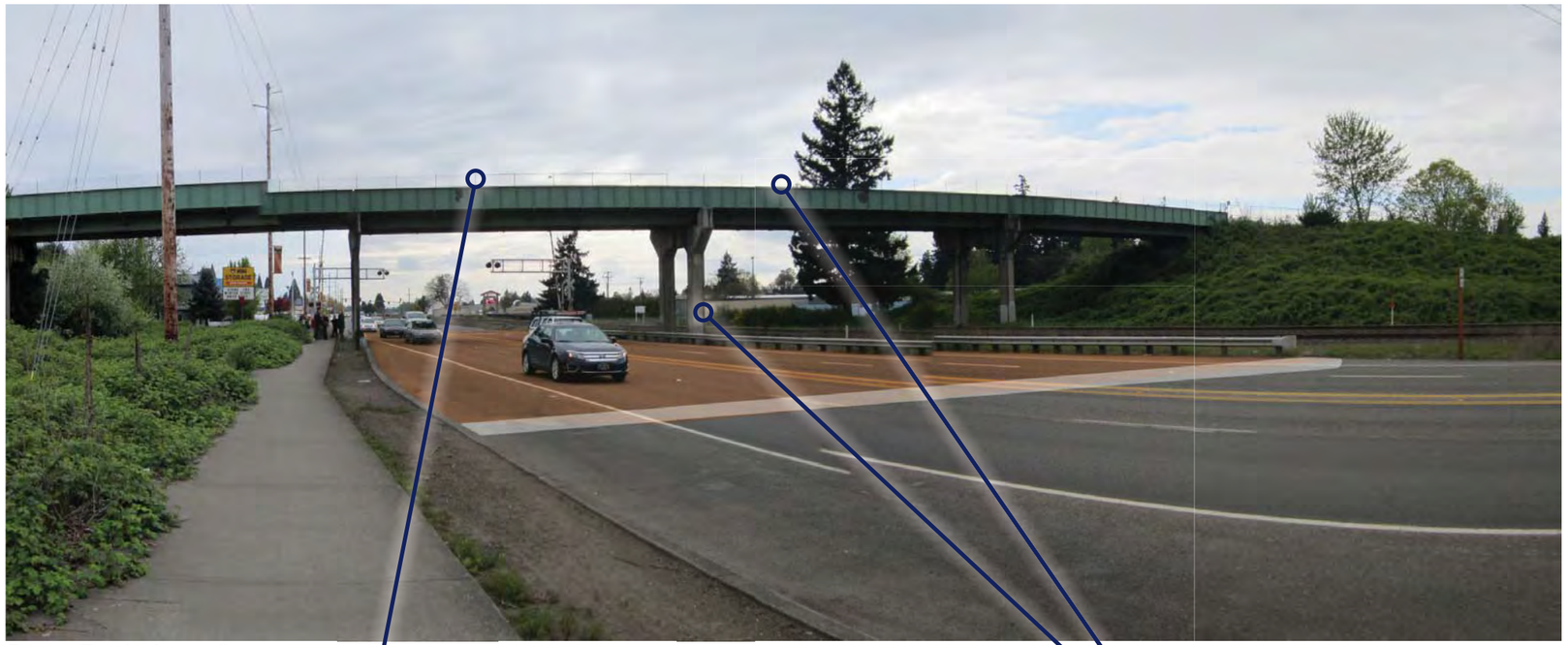
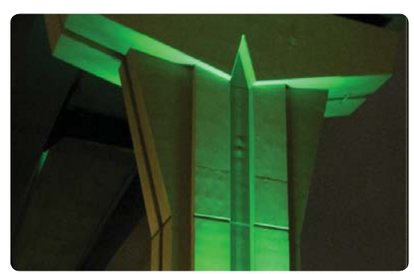


Figure 7 – Lighting Options

Pedestrian Scale Lighting

Architectural Illumination

Ornamental pathway lighting



Lighting for bridge structures

Creating a Nighttime Presence for the Gateway

Aesthetic lighting of bridge features has grown in popularity, both regionally and nationally. While lighting was once primarily used on bridges over waterways, aesthetic lighting is becoming as more common feature along highway overcrossings, even freeway interchanges. It is a way for communities to say "Welcome to Town, the Lights are On." For the Molalla River Pathway Bridge Gateway, two types of special lighting will create a distinctive presence. Pedestrian-scale lighting with a traditional and ornamental style for the poles and fixtures will be placed on the bridge as pathway lighting. This lighting will improve user safety and comfort, as well as illuminating the decorative fencing. Also, soft glow uplights will be used to accentuate the bridge substructure. Light-emitting diodes (LED) lamps will be used throughout to increase longevity and reduce electricity consumption and maintenance. The exact color scheme and array of fixtures will be determined during design of the gateway.

Molalla River Pathway Bridge Gateway - Streetscape

Figure 8 – Streetscape Enahancements

Muted color paving

Event Center stonework

Attractive landscape design creates a good fit between highway and content. Whenever motorists are surveyed, they consistently cite landscaping as important to their perception of attractiveness.

The existing vegetation around the bridge abutments will be removed and replaced with attractive gateway landscaping. The chosen design should reflect the Canby as "The Garden Spot" theme. Implementation of new landscaping should take place only when an on-going maintenance fund has been identified and approved by City Council.

Figure 9 – Potential Future Access to Molalla River Pathway to the North of OR 99E

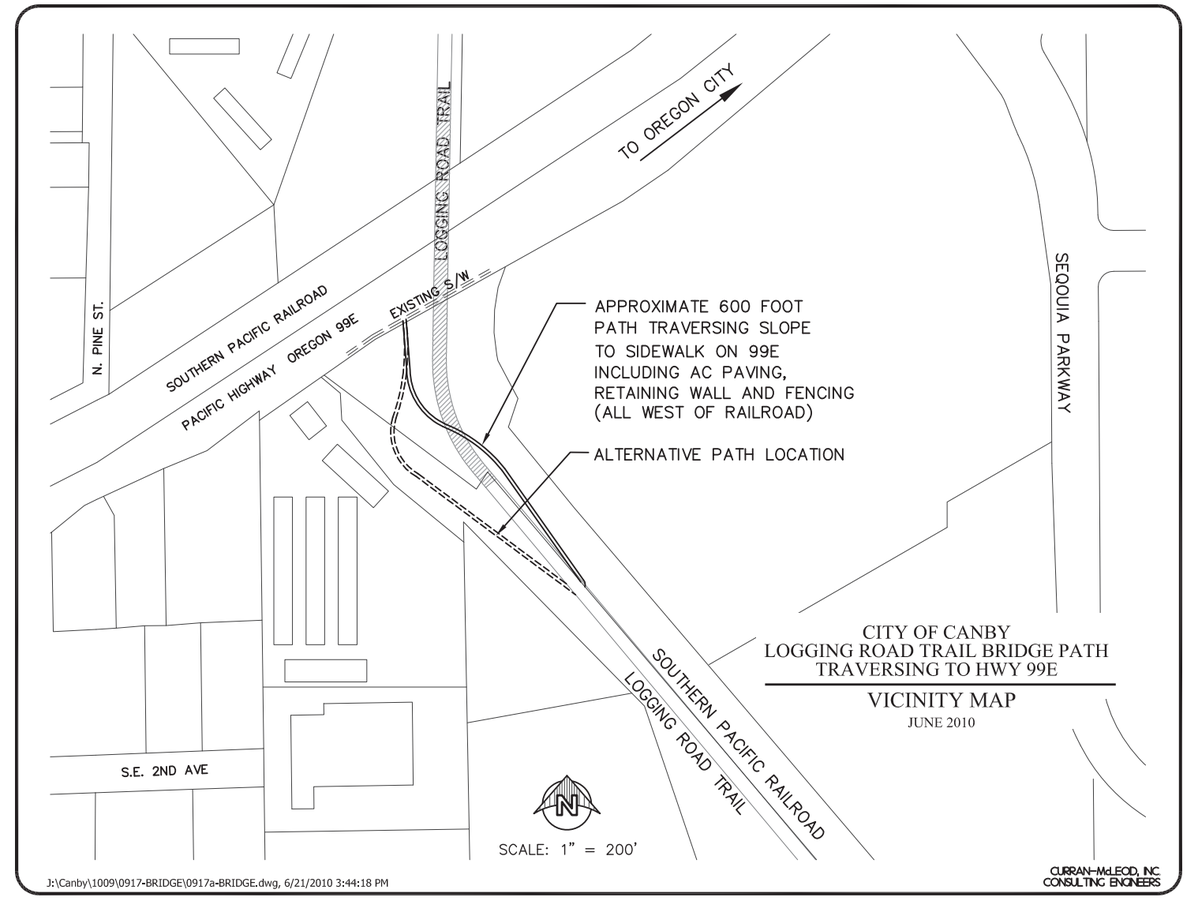


Figure 10 – Potential Future Access to Molalla River Pathway to the South of OR 99E

Future Trail Access Improvements

The trail does not have a useable connection directly to the highway. The City is currently planning to provide access between the south side sidewalk on OR 99E and the Molalla River Pathway by constructing the planned 600-foot path, which will require a retaining wall and fencing due to the slope traversal (two trail alignment options have been identified). Gateway improvements should also provide access to the north side of the Molalla River Pathway. This access could be developed in conjunction with the Pine Street improvements recommended in the TSP and the relocation of the Depot Museum.

Molalla River Pathway Access Improvements

- Provide access to the north side of the Molalla River Pathway in conjunction with the Pine Street improvements and the relocation of the Depot Museum
- Provide access between the south side sidewalk on OR 99E and the Molalla River Pathway by constructing the planned 600-foot path, which will require a retaining wall and fencing due to the slope traversal (two trail alignment options have been identified)

Bridge ornamentation that suggests covered bridges or agricultural practices where considered but not widely supported by the GPAC or through public comment. The preference was for elements more suggestive of garden flowers and vines integrated with the traditional look of the decorative fencing. Some consideration was also given to using metal flower-design sculpture for "landscaping" around the bridge. The consensus preference was for actual landscaping subject to available maintenance funding.

Recommended Design Concepts

Downtown Gateway

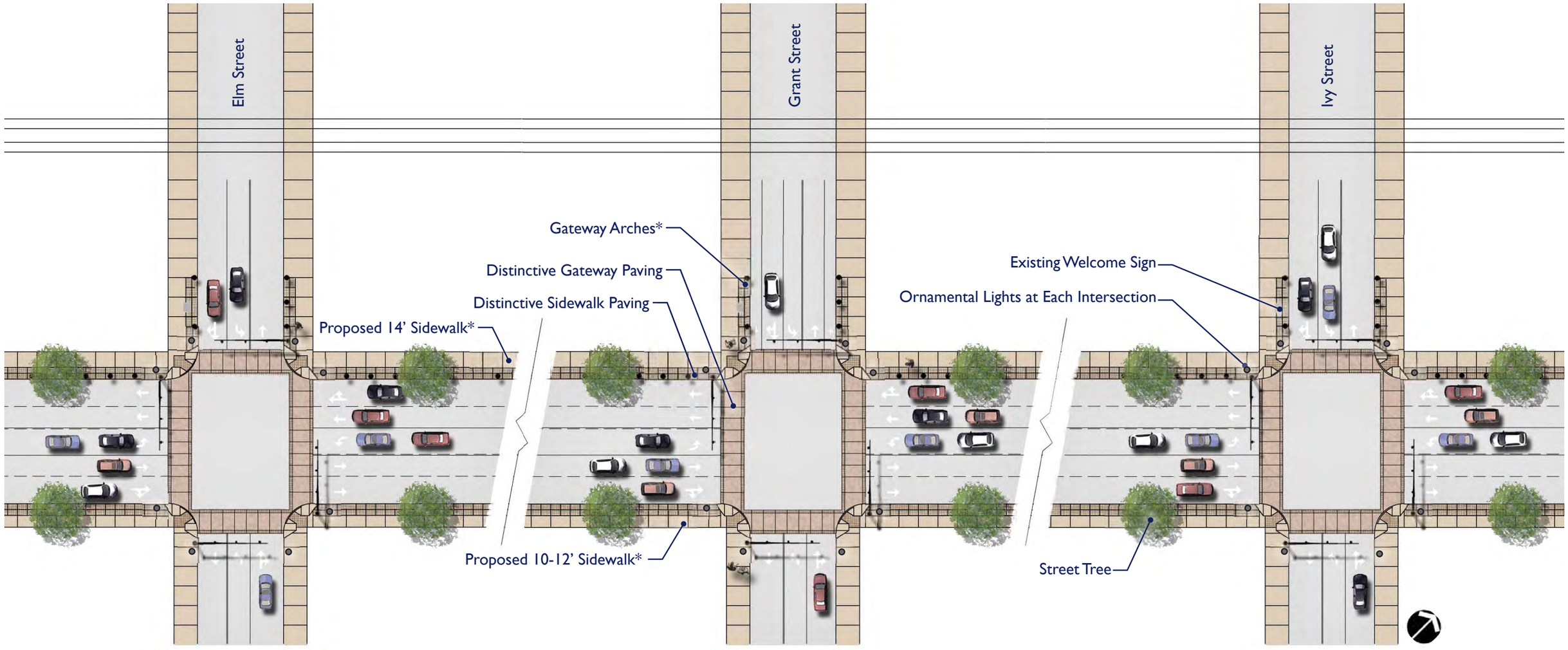
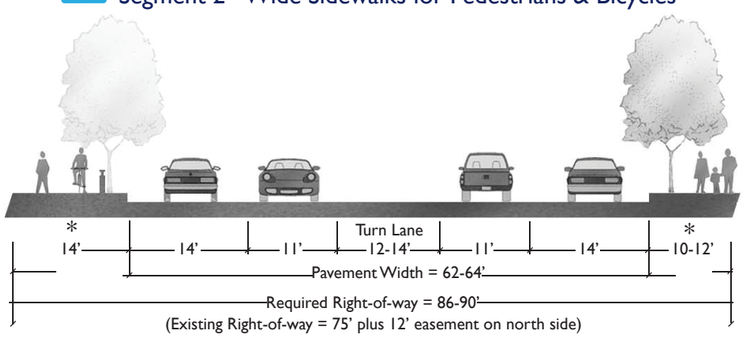


Figure 11 – Downtown Gateway

Segment 2 - Wide Sidewalks for Pedestrians & Bicycles



Bollard examples

* Notes:

- Gateway arch location and final concept to be determined.
- Proposed sidewalks on both sides narrow to approximately 9-10' at right-of-way pinch-points.
- Wide sidewalk on north side is intended to be used by pedestrians and bicyclists.
- For this segment approximately 11-15 feet of total right-of-way would need to be acquired to fully implement the cross-section. Right-of-way acquisition will occur on both sides of OR 99E. Specific locations and property impacts will be identified during future planning.

Downtown Gateway

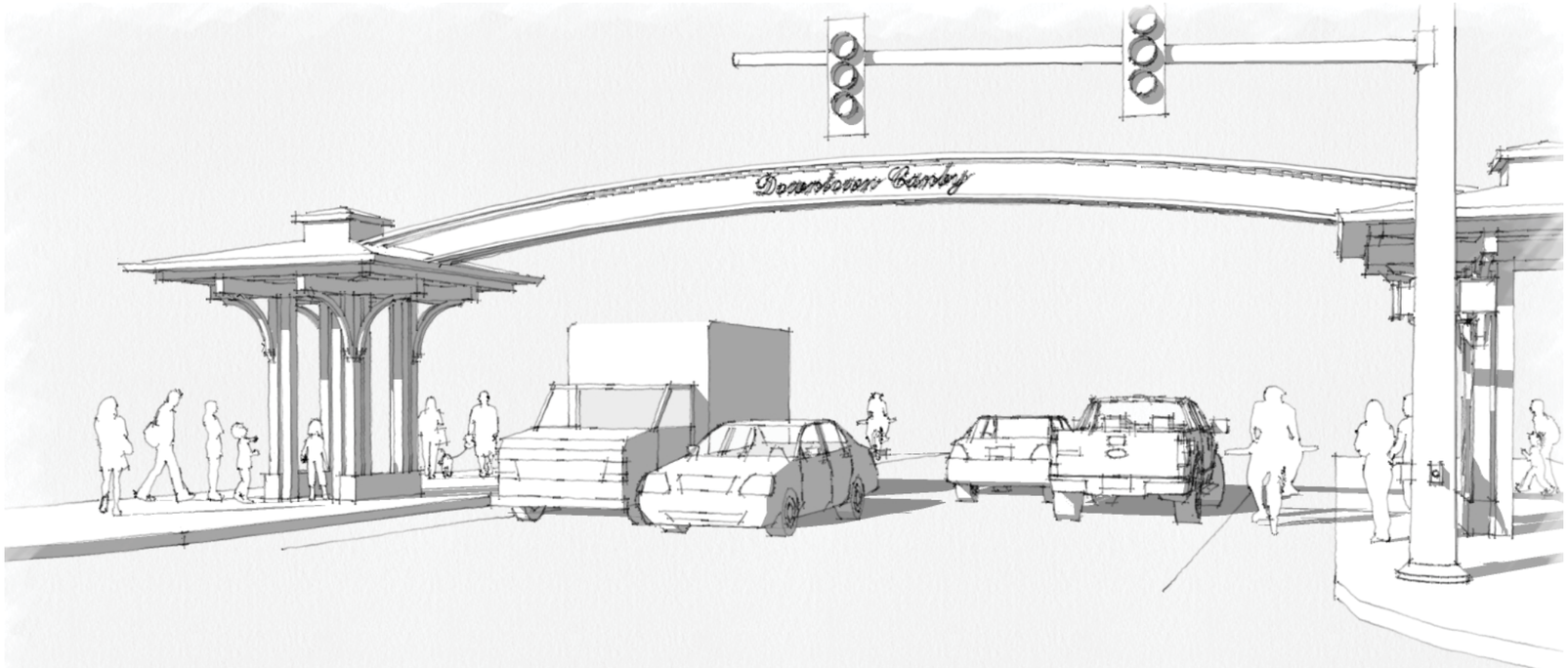


Figure 12 – Gateway Arch Study for Grant, Elm, and Ivy Streets

Ornamental street light

Distinctive gateway paving

Proposed NW 1st Avenue improvements

Continuous Streetscape Features as a Gateway

The Downtown Gateway is a continuous a streetscape design within the STA segment of the highway from Elm Street to Ivy Street. Concern was expressed by local businesses along NW 1st Avenue that the large pine trees on the north (railroad) side of OR 99E block visibility to their storefronts. If possible, the Downtown Gateway elements should support motorists in finding businesses located just off the highway. For example, with the 1st Avenue improvements there may be opportunities to use the back side of the new parking lot fence for placing signs to attract highway traffic to downtown, though permissions would be needed.

The concept builds on the roadway cross-section recommended for this segment and the design features being proposed for the NW 1st Avenue Improvement Project. Key features include:

- Distinctive gateway paving (consistent with other gateways)
- Distinctive sidewalk paving and ornamental bollards (simple designs with potential for lighting at night)
- Potential gateway arches or other vertical elements on Grant Street, Ivy Street, and or Elm Street (consistent with the final NW 1st Avenue improvements)

Revisions to the concept may be needed based on coordination with the NW 1st Avenue project.

Gateway Arch Study for Grant, Elm and Ivy Streets

Community discussion about arches over streets has been part of multiple planning processes for downtown. Most of those discussions have been focused on some kind of gateway arch over Grant Street, near the intersection with OR 99E. Community outreach for this project expanded that discussion to include the possibility of arches over all three of the gateway streets (Elm, Grant and Ivy). The support for arches as gateway element was mixed. It is the recommendation of this plan that continued community discussion about gateway arches should be facilitated. The discussion should include location, design character and materials based on the constructed design of NW 1st Avenue.

Recommended Design Concepts

Berg Parkway Gateway

Enhancing an Existing Gateway

The concept for a Berg Parkway Gateway builds on an existing gateway at that location. The gateway elements should be designed to avoid impacting the OR 99E/Berg Parkway intersection, and consideration should be given to whether they would affect a planned future Berg Parkway bridge.

Recommended features are:

- Distinctive gateway paving (consistent with other gateways);
- Planted or paved median with optional columnar or vase-shaped street trees or low landscaping;[6]
- Replace existing ornamental street lights with poles and fixtures consistent with those used in the downtown core
- Future speed reduction (from 45 mph to 35 mph)

The median is critical to the design. It creates a sense of passage into a more urban environment. The median would prohibit left-turns from being made directly into the Panda Express site, but vehicles coming from the west would have access to the site via the signalized intersection at Berg Parkway. There were some concerns raised about eliminating the ability for a two-stage left turn out of the Safeway site onto OR 99E with the proposed median, but that site has an alternate access to Berg Parkway. The GPAC also discussed the high volume of pedestrian crossings that this location (including high school students) and wondered if the median could be designed as a pedestrian refuge island; however, a refuge island is not likely to be permitted by ODOT due to the proximity to the signalized crossing at Berg Parkway.

Planted median example

Paved median example

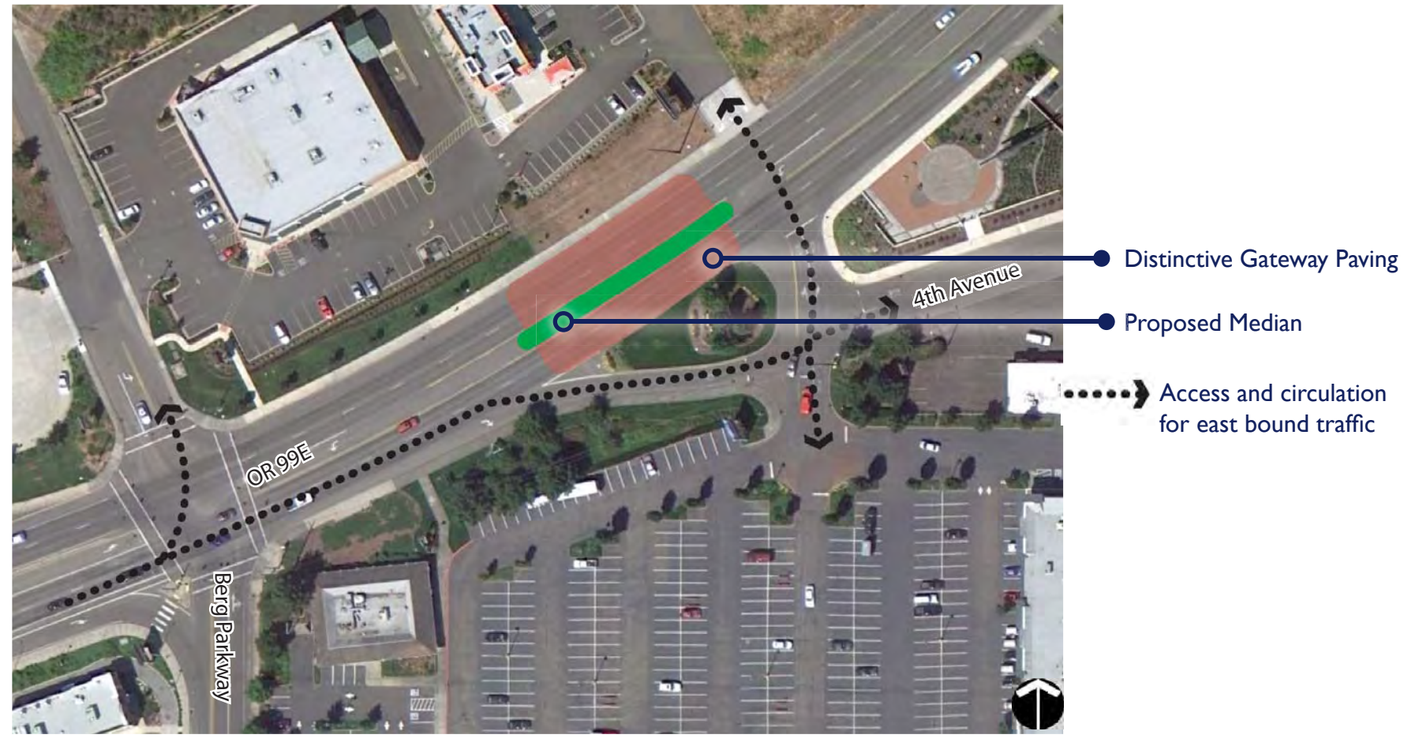


Figure 13 – Enhancing an Existing Gateway

[6] *All proposed features within the OR 99E right-of-way are subject to ODOT approval. Median street trees should be used with posted speeds of 35 miles per hour (mph) or less and conform to all other requirements in the Highway Design Manual (HDM).*

The recommended strategies to implement the Plan include:

- Planning-level cost estimates
- Funding strategies
- Recommended time frame and phasing for improvements
- Actions to protect and obtain right-of-way for future improvements
- Recommended amendments to the Canby TSP and *Canby Municipal Code* (CMC) as needed to implement the Plan.

ODOT regulates access to OR 99E, supported by City TSP policies. No new policies or standards for access management are being considered as part of this Plan.

Planning Level Cost Estimates

Planning level cost estimates were prepared for the improvements proposed in the Plan and are listed in Table 1. The cost estimates are intended to assist the City in obtaining funds and allocating budget for the projects and were developed using similar assumptions as the Canby TSP. They are based on general unit costs for transportation improvements, but do not reflect many of the unique project elements that could significantly increase project costs. As projects are pursued, each of these project costs will need further refinement to determine right-of-way requirements, costs associated with special design details, maintenance, and other project-specific needs.

Many of the Downtown Gateway elements consist of ornamental or decorative upgrades that would be installed as part of the OR 99E Segment 2 (STA) corridor improvements. To account for the upgrades, the Downtown Gateway cost estimates provided in Table 1 only include the difference in costs between the decorative items and the standard design features. Higher costs would be incurred if the Downtown Gateway improvements were to be constructed separately from the OR 99E Segment 2 (STA) corridor improvements because they would require removal and replacement of infrastructure.

Table 2: Planning-level Cost Estimates for Corridor and Gateway Improvements

Improvement Project	Description	Cost Estimate
Corridor		
OR 99E Segment 1: West City Limits to Elm Street (0.6 miles)	Typical lane widths with shoulder bikeway	$5,100,000
OR 99E Segment 2 (STA): Elm Street to Locust Street (0.5 miles)	Narrow lane width with wide sidewalks on north side for pedestrians and bicycles (TSP Motor Vehicle Project N1)	$4,700,000[a]
OR 99E Segment 3: Locust Street to Molalla River Pathway Bridge (0.5 miles)	Typical land widths with shoulder bikeway	$3,900,000
OR 99E Segment 4: Molalla River Pathway Bridge to Territorial Road (1.1 miles)	Typical lane widths with shoulder bikeway and wide center median (ODOT Urban Standard for 45 miles per hour)	$8,800,000
Gateway		
Berg Parkway Gateway	Decorative street paving, planted or paved median with street trees or low landscaping, and ornamental lights	$600,000
Downtown Gateway	Decorative intersection paving and sidewalk treatments; ornamental traffic signal poles, street lights, and bollards; and a potential gateway arch	$900,000[b]
Molalla River Pathway Bridge Gateway	Decorative street paving, railroad fencing, bridge railing, and columns; pedestrian-scale and architectural lighting; and landscaping	$900,000
Other		
Molalla River Pathway Access Improvements	Provide access between the south side sidewalk on OR 99E and the Molalla River Pathway (TSP Pedestrian Project T1)	$360,000[c]
	Total Cost	**$25,250,000**

[a] *Costs for the OR 99E Segment 2 (STA) corridor improvements (Motor Vehicle Project N1) were identified in the Canby TSP. However, a higher cost is now assumed because additional information is known regarding right-of-way needs on the north side of OR 99E (due to an existing easement). In addition, this project will construct the crosswalk and ramp improvements identified in the TSP at the three signalized intersections (see Pedestrian Projects C1, C2, and C3).*

[b] *Costs of Downtown Gateway improvements are based on construction of decorative upgrades at the time of OR 99E Segment 2 (STA) corridor improvements.*

[c] *Costs for the Molalla River Pathway Access Improvements (TSP Pedestrian Project T1) were identified in the Canby TSP.*

Funding Strategies

Table 7-6 of the Canby TSP lists the financially constrained motor vehicle projects and includes non-capacity improvements to OR 99E between Elm and Locust Streets associated with the STA designation for this portion of OR 99E. Those improvements include repaving the highway and providing bikeway shoulders and sidewalks. To fund the projects on the TSP financially constrained projects list, the City will rely in part on existing sources of revenue such as gas taxes, urban renewal funds, and SDCs. However, the TSP notes that the estimated total cost for the financially constrained project list exceeds that of projected revenue and therefore, additional funding sources will be needed. Furthermore, the corridor improvements identified in the Plan outside the STA are not included in the financially constrained package, meaning additional funding sources will be needed to implement those improvements.

The TSP (p. 9-8) identifies several potential supplemental sources of funding for transportation improvements; these include state and county contributions, developer exactions, urban renewal, increase to the City's transportation SDC, local improvement districts, special assessments, and grants. Some of these may be appropriate for funding improvements identified in the Plan, as follows:

Developer exactions and fee-in-lieu. As properties along the OR 99E corridor develop or redevelop, the City will have the ability to require right-of-way dedication and frontage improvements consistent with current practice (and provided for in Chapters 16.49 and 16.86). Frontage improvements typically include sidewalks and curbs, planting strips, street trees, associated drainage and any other improvements specified between the curb and building lines. If a development is anticipated to contribute a high volume of traffic to OR 99E intersections, the City may also be able to exact roadway (adjacent or off-site) improvements proportionate to the anticipated impacts on the facilities. Examples include traffic signal upgrade, new or lengthened turn lanes, traffic channelization or pedestrian crossing enhancements. As an alternative to requiring actual construction of the improvement, the City could require a fee in-lieu equal to the cost of constructing the improvements. The City could use those funds at a later date to fund the improvement when the timing is right. Currently, the City does not have a formalized process for accepting in-lieu fees for transportation-related improvements. City staff has expressed interest in incorporating fee-in-lieu language in the CMC. Therefore, a section from the City of Milwaukie's development code is included as an an example in the Technical Appendix.

Advance financing. The City also has an advance financing option for funding public improvements (CMC Chapter 4.12). This option allows the City to require that new development pay for and construct public improvements which need to be in place to accommodate site traffic, but that will also benefit multiple surrounding properties. As the surrounding properties develop or redevelop, the City can require them to contribute their proportionate share of the improvement, which the City then conveys to the developer who funded the construction. Some improvements identified in the Plan could be required by the Planning Commission (upon assessment and recommendation by the Public Works Department) as a condition of approval for a subdivision, land partition or conditional use application. The City may only require improvements that are shown on an approved master planning document such as the TSP. Sections 4.12.030 through 4.12.080 contain language that describes the process for approving advance financing, the rates of reimbursement, and collection of fees.

State and Federal Grants. The City could pursue federal and state grants, a number of which are described in the Canby TSP Implementation Strategy. One such opportunity is the federal TE grant program which funds projects that expand transportation choices and enhance the transportation experience through 12 eligible activities relating to surface transportation. Eligible activities include pedestrian and bicycle infrastructure and safety programs, scenic and historic highway programs, landscaping and beautification, historic preservation, and environmental mitigation. Many of the improvements identified in the Plan could qualify for this program.

Urban renewal. An urban renewal district (URD) is a tax-funded district within the City that is supported by the incremental increases in property taxes resulting from the construction of applicable improvements. As directed by the City and its URD board, the funds raised by a URD can be used for transportation projects located within the URD boundaries.

The City currently has a URD for its downtown core and the Canby Pioneer Industrial Park, including OR 99E and properties on either side of the highway between approximately Birch Street and the Molalla River Pathway Bridge. The primary purpose for the URD is "to eliminate blighting influences found in the Renewal Area, to implement goals and objectives of the *City of Canby Comprehensive Plan*, and to implement development strategies and objectives for the Canby Urban Renewal Area." The *Canby Urban Renewal Plan* indicates that projects eligible for funding include street and sidewalk improvements and acquisition of necessary right-of-ways. The City could use urban renewal funds to cover a portion of the costs of improvements already within the URD boundary and/or consider expanding the URD boundary to include Plan transportation projects outside the URD boundary.

Local improvement districts (LID). The City may set up LIDs to fund specific capital improvement projects within defined geographic areas, or zones, of benefit. LIDs impose assessments on properties within its boundaries and may only be spent on capital projects within the geographic area. LIDs may not fund ongoing maintenance costs, therefore they require separate accounting. Furthermore, because citizens representing 33 percent of the assessment can terminate a LID and overturn the planned projects, LID projects and costs must meet with broad approval of those within the LID boundaries to be implemented.

Statewide Transportation Improvement Program (STIP). When ODOT programs a pavement preservation project on OR 99E, it may be an opportunity for the City to simultaneously implement some of the Plan improvements, with potential cost savings for combining projects.

Time Frame and Phasing

The Plan is intended to be implemented over 20 or more years. Construction phasing of the improvements identified in the Plan is contingent on the availability of funding, and will likely occur incrementally. The timing of corridor property development or redevelopment will also affect project feasibility. For example, if a number of properties along one segment of OR 99E were to redevelop and dedicate right-of-way and fees-in-lieu for frontage improvements, the City could prioritize funding improvements for that segment. Timing may also depend on the availability of state and federal funds.

Informally, the City has identified the Molalla River Pathway Bridge improvements and the Downtown and Molalla River Pathway Bridge Gateways as priority projects.; however, these projects are not proposed to be included on the Canby TSP's financially constrained project list. Timing of these priority improvements will be primarily based on funding availability.

Actions to Protect and Obtain Right-of-Way

The cross-sections for OR 99E identified in the Plan will require additional right-of-way width (typically ranging from 11- 15 feet) in order to be constructed. Additional right of way may also be needed at intersections in order to provide adequate radii for truck maneuvers.[7] As properties along OR 99E within the Plan area develop or redevelop, the City will require dedication of adequate right-of-way consistent with the corridor segment cross-sections identified in the Plan and consistent with ODOT highway design standards in place at the time of construction.

CMC Chapter 16.86.020, VII Street Alignments will allow the City to protect and obtain right-of-way for the cross-sections identified in the Plan (which will also be adopted into the City's TSP). It contains the following language that requires dedication of right-of-way at the time of development and prohibits development within identified future roadway alignments:

A. The Transportation System Plan shall be used to determine which streets are to be arterials, collectors, and neighborhood connectors. All new streets are required to comply with the roadway design standards provided in Chapter 7 of the TSP. The city may require right-of-way dedication and/or special setbacks as necessary to ensure adequate right-of-way is available to accommodate future road widening projects identified in the TSP.

B. Right-of-way widths and cross section standards for new streets shall be in conformance with the Canby Transportation System Plan and the Public Works Design Standards.

C. The Public Works Director shall be responsible for establishing and updating appropriate alignments for all streets.

D. No building permit shall be issued for the construction of a new structure within the planned right-of-way of a new street, or the appropriate setback from such a street as established in Division III.

E. Existing structures which were legally established within a planned road alignment or abutting setback shall be regarded as nonconforming structures.

The above requirements would be triggered by any project that requires a building permit. In practice, the City will only require right-of-way dedication for projects that also trigger site design review, which typically include new development and remodels representing 60 percent or more of the assessed tax value of a building. For smaller projects, right-of-way dedication will likely not be required; however, the project will have to comply with (D) above which prohibits new structures from being built within future street alignments.

If the City or ODOT develops a project to construct an improvement for which adequate right-of-way has not yet been dedicated by all abutting properties, then the agency conducting the project would need to purchase right-of-way from impacted property owners.

Recommended Plan and Code Amendments

This section contains suggested *City of Canby Comprehensive Plan and Canby Municipal Code* amendments that are intended to support and implement the Plan. Recommended amendments include:

- New language in the TSP to adopt and reference the Plan.
- TSP language to clarify or replace cross-sections for OR 99E through the Plan area.
- Language in several sections of the zoning code to implement sidewalk improvements and eliminate conflicts in sidewalk width standards.

The recommended new language and deleted language are shown in the Technical Appendix.

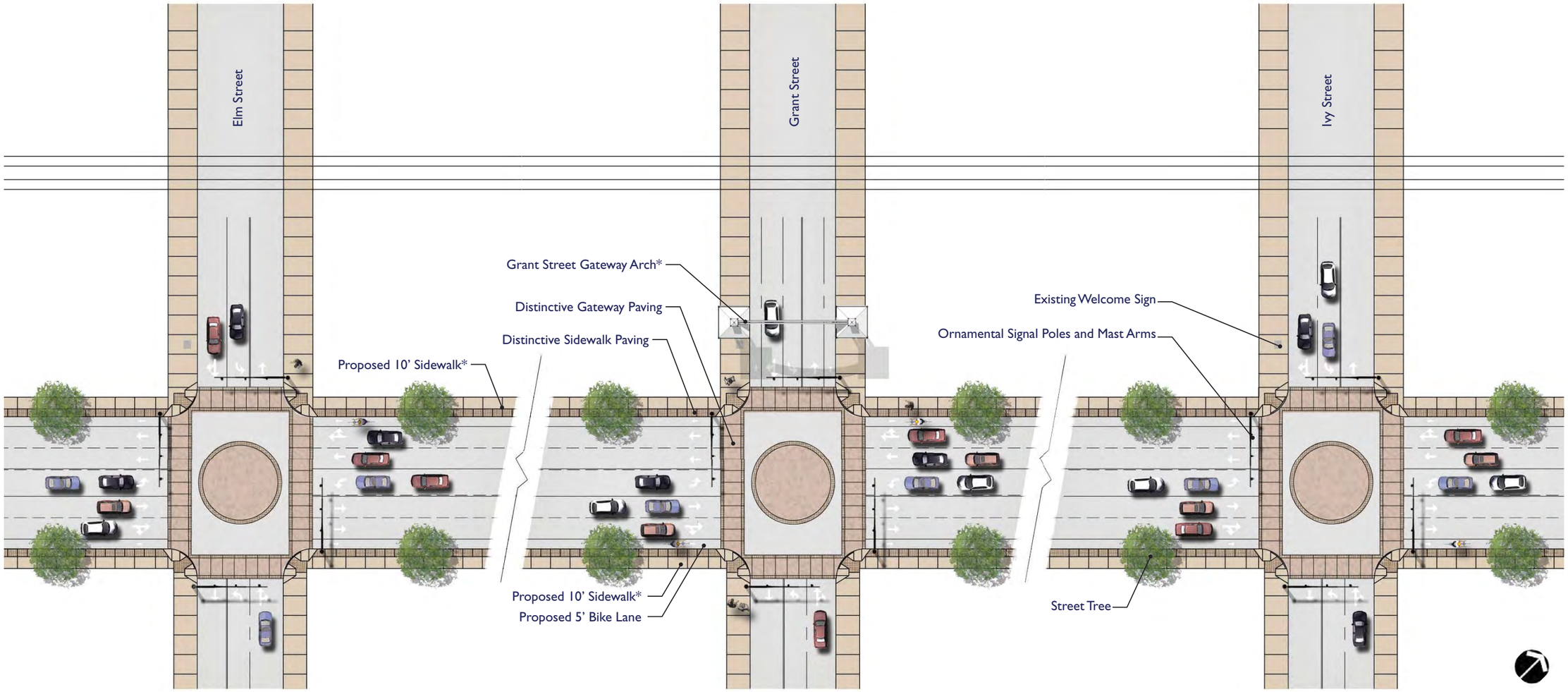
7 *Turning radii standards are located in Canby's Public Works Standards and not in the CMC. The City should review those public works standards to ensure they will support and implement the improvements indicated in the Plan.*

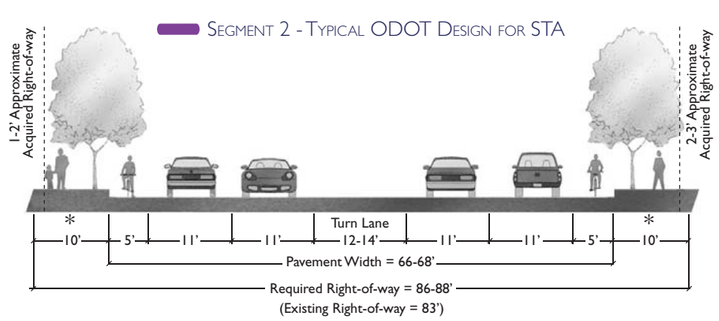
Alternative Concept Plans

The preferred concept for the Downtown Gateway is illustrated on page 20. Two other alternatives were developed and considered by the GPAC during the course of the project, and have been included on the following pages. Each alternative reflects roadway cross-sections for the STA segment of OR99E proposed during concept design development for the project. A primary reason that these alternatives were not preferred is that both include an on-street bicycle lane in this segment, which was not the strongly supported by the GPAC or other community input.

Appendix

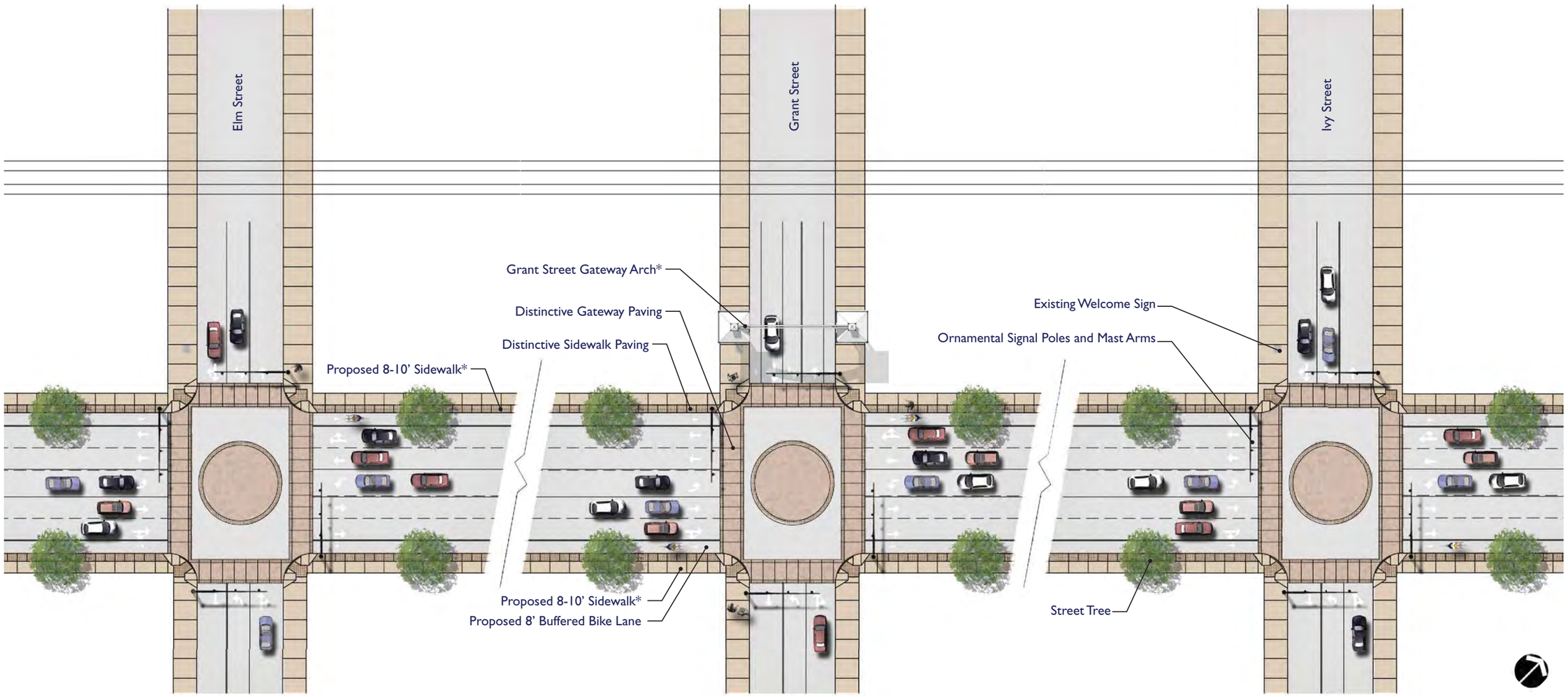
Downtown Gateway - Option A

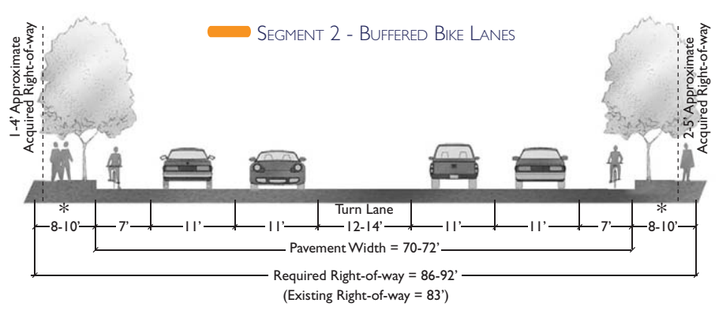




* Notes:
- Grant Street Gateway Arch Location and final concept to be determined.
- Proposed 10' sidewalks on both sides narrow to approximately 7-8' at right-of-way pinch-points.

Downtown Gateway - Option C





* Notes:

-Grant Street Gateway Arch Location and final concept to be determined.

-Proposed 8-10' sidewalks on both sides narrow to approximately 5-6' at right-of-way pinch-points.