CONCEPT PLAN

KING CITY URBAN RESERVE AREA 6D

MAY 2018

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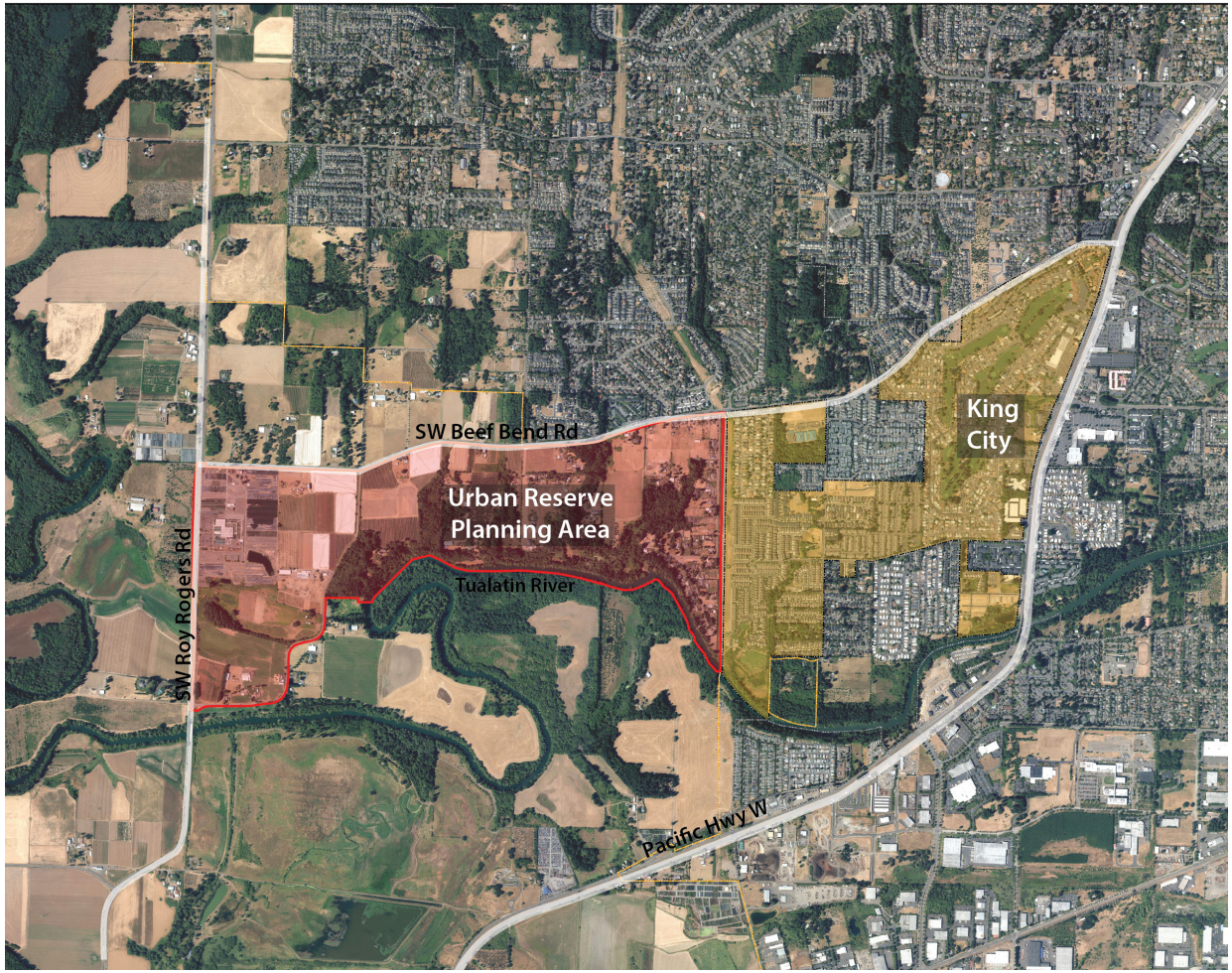
1. INTRODUCTION

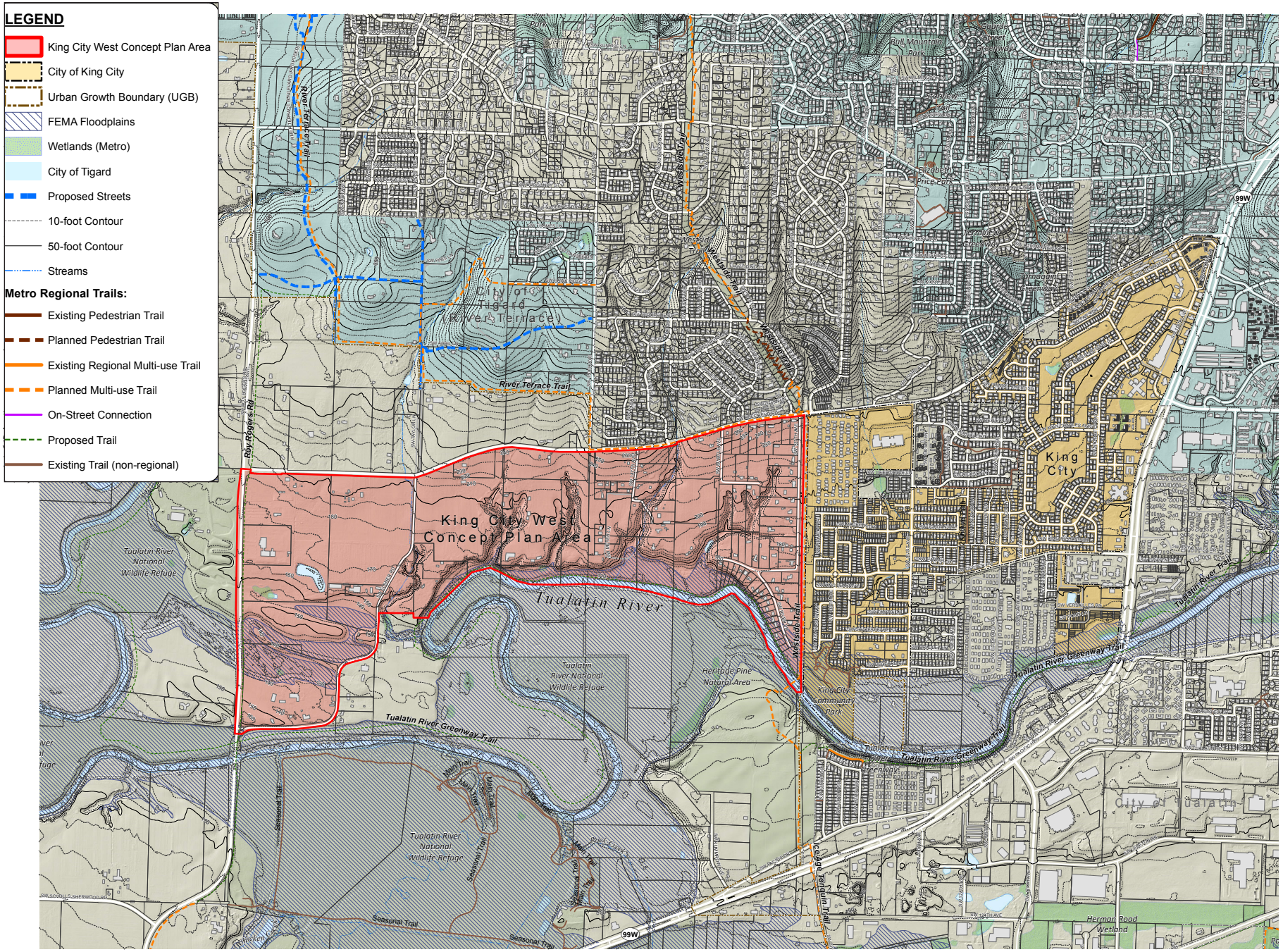
Planning Area

The URA 6D planning area is approximately 528 acres located immediately west of King City. It was designated by Metro as an Urban Reserve Area in 2011. SW Beef Bend Road and SW Roy Rogers Road border the area on the north and west, respectively. The south boundary is formed primarily by the southern segment of SW Elsner Road and the Tualatin River.

Land along the river is within the 100-year Tualatin River flood plain, and five drainages generally run south from Bull Mountain to the river. Riparian and wetland habitat is found in portions of these areas. The land outside of the flood plain and drainages is currently devoted to agriculture, rural home sites, and a retail garden and landscaping business on SW Roy Rogers Road. The eastern portion of the URA is within Rivermeade Subdivision, which has lots ranging between approximately 1/3 to 3 ½ acres. Property sizes in the URA tend to become larger from east to west.



Vicinity Map



URA 6D and surrounding area

Need for the Plan

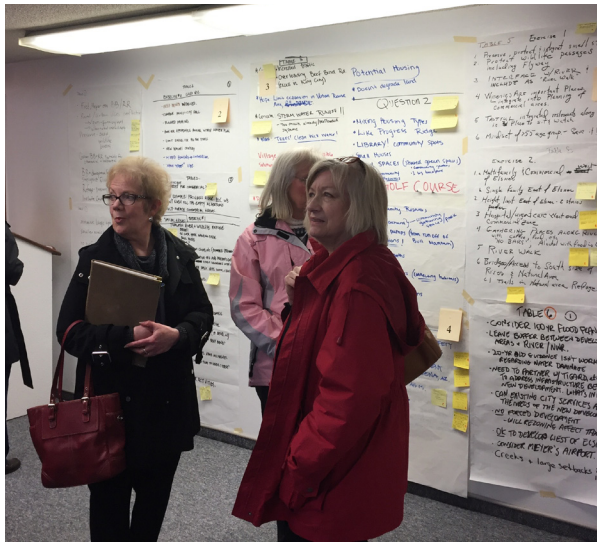
Recognizing an approaching shortage of developable urban land for future residential and employment growth in the Portland region, Metro and the region's cities and counties began to evaluate suitable urban reserve areas in 2009. In Washington County, the study area included over 170,000 acres closest to the existing Urban Growth Boundary (UGB). Land within this area was analyzed for suitability as rural reserves, land to continue in resource use, and urban reserves, land most suitable for urbanization within the next 40 to 50 years. Part of the evaluation included an assessment about how much future urban development could be accommodated within the existing UGB.

Following a planning and public involvement process involving Washington County, cities, Metro, and the Oregon Land Conservation and Development Commission, it was determined that the existing UGB could not accommodate all of the anticipated future urban development and that additional land would be necessary for homes, businesses, and public facilities. Because of its overall suitability to support urban development, URA 6D was designated as an Urban Reserve Area in 2011.

2. PLAN DEVELOPMENT

URA 6D Concept Plan Initiation

Because this area is adjacent, King City is sponsoring an Urban Reserve Area 6D Concept Plan to consider how this area might be developed when Metro determines that it is needed to accommodate future urban growth. This long-range planning project is the second of a multi-step process involving area residents and stakeholders, affected agencies and jurisdictions, and Metro. Metro will be making a decision regarding possible Urban Growth Boundary (UGB) expansion for the region at the end of 2018, and URA 6D will be a candidate for consideration. Whether Metro determines there is a need to include URA 6D in the UGB or not, Metro will continue to review urban land needs periodically in the future.

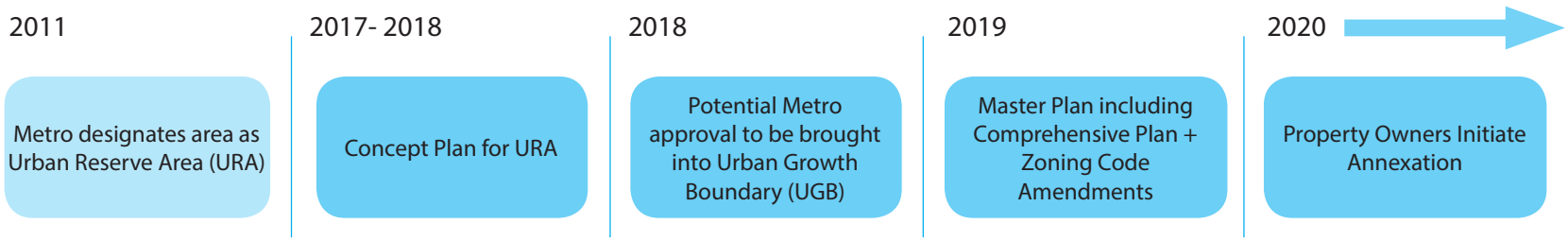


Public workshop and open house

Overall Planning Timeline

Assuming URA 6D is brought into the UGB at the end of 2018, additional planning work will be required, including more detailed master planning for the area, King City Comprehensive Plan and Community Development Code (zoning and land use regulations) amendments to reflect the master plan, and property annexation prior to any urban development. The figure below summarizes the shortest anticipated timeline, which could be extended depending upon Metro determination and the interest of property owners in annexing and developing their properties.

Overall Planning Timeline



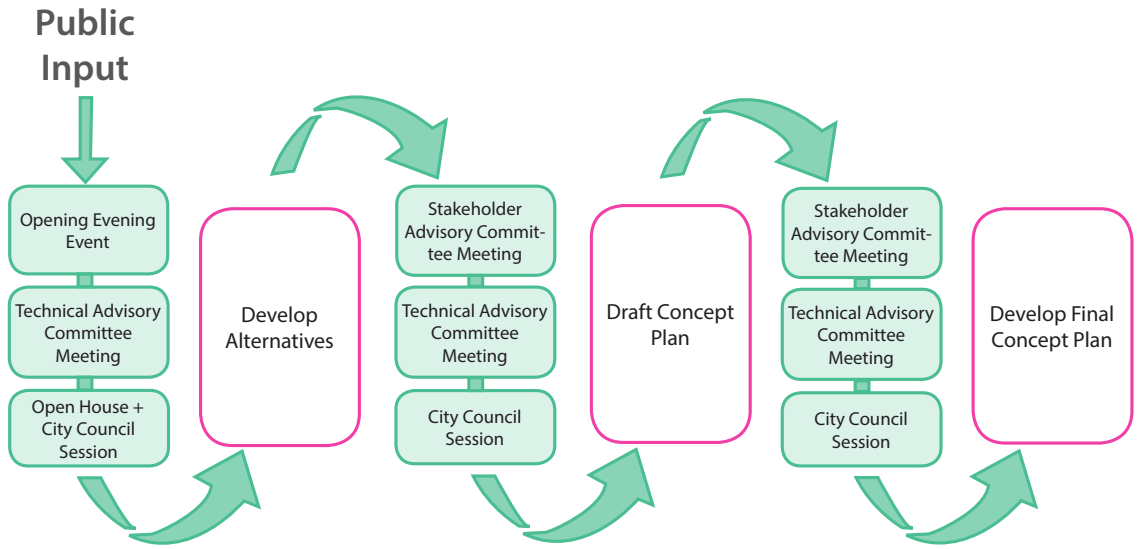
URA 6D Concept Plan Process

The Concept Plan was developed during a four-phase process beginning in September 2016 and concluding in April 2018:

- **Phase 1 – Set Vision and Goals.** Stakeholders were asked to identify important issues to be addressed during the project along with desired general outcomes they would like to see.
- **Phase 2 – Base Conditions and Key Findings.** Background reports were produced and made available regarding housing, land use, infrastructure, natural resources, and environmentally sensitive areas to help guide the planning process and outcomes.
- **Phase 3 – Concept Framework.** A draft overall plan framework was developed with the involvement of stakeholders and local governments and service providers for public review and modification in Phase 4.
- **Phase 4 – Concept Alternatives and Recommendations.** Concept planning alternatives were prepared and a preferred alternative concept plan was selected. A key involvement opportunity was a multi-day planning charrette, which involved residents, stakeholders, local governments, and service providers. In addition to the charrette, public and agency review and comment was facilitated by:

- **Stakeholder Advisory Committee** (SAC) consisting of residents and property owners within and near the planning area.
- **Technical Advisory Committee** (TAC) made up of local government and public service providers that are, or would be, responsible for providing public services and facilities to accommodate development in the planning area.
- **Public briefings** were held before the King City Council and Planning Commission to provide information about the project status and to receive input regarding direction of the Concept Plan.

The planning process was iterative giving the public, SAC, TAC, and city officials an opportunity to influence the planning process and outcome at several key stages of the Concept Plan's development as summarized in the public input diagram below. Additional information regarding the planning process and opportunities for involvement are provided in the appendix.



Public involvement diagram

3. CONCEPT PLAN VISION AND GOALS

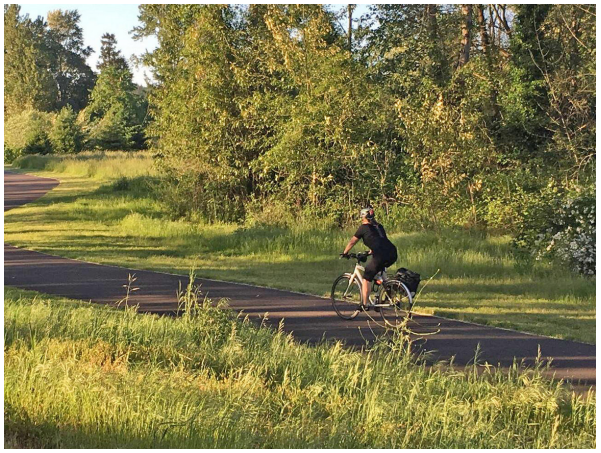
Vision and Goals

During the URA 6D concept planning process, the community helped identify and refine the vision and goals for development of this area. The vision and goals were vetted and refined by stakeholders. The resulting community vision is an area of great neighborhoods that is a blend of housing, neighborhood-serving commercial, light industrial and civic uses with consideration for schools, parks and recreational spaces.

SENSITIVITY TO TUALATIN RIVER AND SURROUNDING NATURAL AREAS

» **Tualatin River as reason for being:** The river is a defining feature of this area and a major contributor to what makes it special. New development should connect, in physical and other ways (like wayfinding and other public art) to the Tualatin River and Wildlife Refuge. Provide access to the Tualatin River through a Riverwalk trail and a trail across the river. Maintain a sensitivity to the health and vitality of the river.

Charrette opening evening event



- **Graceful transitions:** Make sure that development transitions down in scale and intensity where it meets natural areas, particularly on the southern edge where future development might be located near the Tualatin River. Transition density from center to edge. Leave a buffer between developed and undeveloped areas, the river and the Tualatin Wildlife Refuge.
- **Integrated stormwater management throughout:** Use new development to treat stormwater from the new development and also from existing development uphill. Aim to reduce runoff and heal existing erosion damage. Use best practices for stormwater management and mitigation; build upon what Tigard has done for River Terrace and areas north of the URA.
- **Integrate nature into developed areas:** Integrate green spaces and wetlands into each neighborhood. Provide different choices for recreation and parks, including pocket parks, recreation and playfields, and a connected trail system.

COMMUNITY OF GREAT NEIGHBORHOODS

- **Character of development:** Develop neighborhoods that are a blend of residential and, in some locations, neighborhood-serving commercial. Denser development is desirable provided there is easy access to green spaces.

  A new mixed use area should have local-serving uses and neighborhood scale character, with places such as a library, school, new city hall, police station and recreation facilities. In addition, consider commercial uses that cater to the wine country tourism such as a boutique hotel, winery or brewery. Consider also campus-style employment or institutional uses. New development should strive to serve existing neighborhoods and new residential uses that will be developed in the URA and surrounding area.
- **Range of housing types and inclusive development**: Provide a mix of housing to accommodate a wide range of household types, incomes, and needs. Affordability is key; provide affordable housing that matches the identity of King City and includes single story living options. Housing should appeal to a full spectrum of people, taking into account diverse incomes, ages, and needs.
- **Historical context:** New development should respect the history of the area.
  - Drawing on the tradition of agriculture in the area, make it easy to access farm-fresh foods; consider incorporating urban farming and/or provide easy access to urban farming, including community gardens.
  - Consider Meyer's airstrip and related airspace when planning for future development.

- Respect the senior community that is a part of King City's history by creating inclusive developments for all ages.
- Include history of the area in plans, and the heritage of agriculture and earlier cultures.

» **Connected communities:** Build connections between new developments and existing King City. Consider ways to complement existing civic and commercial activities and other amenities in the town center area. Strive to bring communities together with shared community character. Consider ways to connect to other destinations, such as regional parks, trails and mixed use developments in neighboring River Terrace.

UNIVERSAL ACCESS AND FLUIDITY OF TRANSPORTATION

» **Support all modes of transportation:** Prioritize walking and bicycling over driving for local trips within the URA and nearby areas, including downtown King City. In addition to walking and bicycling, include routes for other modes of transportation, such as golf carts and horses. Consider extending golf cart use by providing parking, service hubs, golf cart park and ride connections to transit. Refer to King City Town Center Plan and Implementation Strategy for additional ideas.

» **Complete network of street and path types:** Complement the conventional street and trail system of local streets and paths with types of streets and trails that are unique to King City, and that share park-like or rural characteristics: curbless green streets, alley-trails, and "country roads."

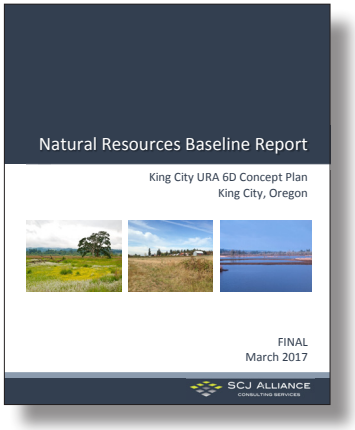
» **Connected transportation network:** Create an internal system of streets and paths that offer internal neighborhood mobility, so that SW Beef Bend Road is not necessary for every trip. Provide convenient connections to transit. Provide streets that seamlessly connect to trails and vice versa. Connect to existing and planned trails in the region.

4. BASE CONDITIONS AND KEY FINDINGS

SUMMARY OF METHODOLOGY

The methodology applied to the Concept Plan began with expert-led analyses of the Base Conditions for each discipline (natural resources, land use, mobility and infrastructure). This phase culminated in a synthesis, or layering, process of mapping the physical and regulatory opportunities and constraints. The layering process established the Design Frameworks, which guided the creation of alternatives, development scenarios, and the proposed Concept Plan.

Summary of Methodology	
Issues addressed	» *Natural Resources* » *Land Use and Ownership Patterns* » *Mobility* » *Infrastructure*
Purpose of Base Conditions Reports	*Inventory existing physical conditions, policies and plans that apply to the area*
Purpose of the Design Frameworks	*Respond to Base Conditions (physical conditions, policies and plans that affect development in the area):* » *Identify opportunities and constraints* » *Respond to Community Vision* » *Inform design philosophy* » *Set priorities and direction*
Alternatives and development scenarios	*Represent phasing and development scenarios*
	Describe potential development in the URA: » *Where it will occur, as defined by vision and goals, physical conditions and existing policies* » *How it will occur, according to property ownership patterns and willingness to develop or redevelop* » *Define development alternatives* » *Potential timing of development*



Contents of Natural Resources Baseline Report

The Natural Resources Baseline Report (SCJ Alliance, March 2017, Appendix B) inventories existing physical conditions, policies and plans that apply to the area.

Riparian Corridors

Wetlands

Wildlife Habitat

Groundwater Resources

Natural Areas

Oregon Recreational Trails

Mineral and Aggregate Resources

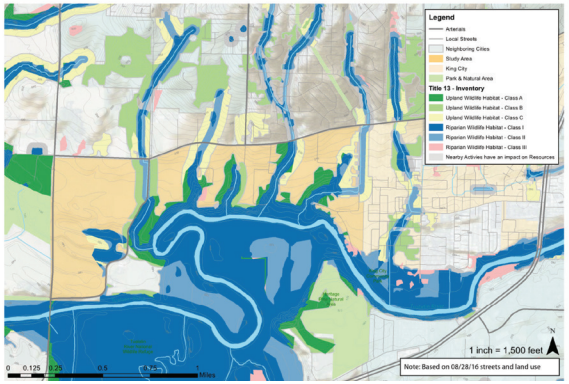
Cultural Areas

OVERVIEW OF NATURAL RESOURCES BASELINE REPORT

Introduction

The 528-acre planning area includes flood plains, riparian areas, and other sensitive lands. Potential developable areas are often separated into subareas by ravines, riparian areas, and similar natural features. The area is a mix of flat farmlands and deep ravines, sloping down to the river. The Tualatin River, which runs along the southern border of the URA, is the single most defining feature of the area; giving this place its unique character and highlighting the need for careful development. Just beyond the river to the south is the expansive Tualatin River National Wildlife Refuge. These natural areas in and adjacent to the planning area are sensitive natural resources that are essential to the greater ecosystem of the region and define, to a large extent, the other aspects of this plan such as land uses, the transportation network and public facilities.

King City is situated in the greater Tualatin River Drainage Basin, which forms the foundation for surface and subsurface hydrologic systems in and around the King City URA. The basin headwaters emanate from the Coast Range foothills, dominated by a basalt bedrock foundation. Lower elevation portions of the basin east of the foothills flow through Willamette Valley floodplains, eventually flowing into the Willamette River. King City is situated at the transition between the Middle Tualatin Sub-watershed Basin and the Lower Tualatin Sub-watershed Basin.



Riparian corridors, floodplains and upland habitat

The Tualatin River, Wetlands and Streams

The Tualatin River meanders around the southern edge of the URA. The standard buffer ranges from 125 to 200 feet dependent on the slope of uplands adjacent to the river. The river surface is at about 110 feet in elevation in summer months; the adjacent floodplain in the southern portion of the study area is about 10 feet higher. Total width of the vegetated (trees and shrubs) riparian corridor ranges about 300 feet, with the main flow channel being about 120 feet wide. Wetlands in this area are mostly farmed, ditched, and drained to varying degrees, although there are some protected areas that remain in natural vegetation, mostly on the southern side of the river.

The area contains five north-to-south draining stream ravines, which become increasingly deep, cutting down through the upper terrace as they drain toward the Tualatin River. The streams in the area are generally intermittent, but some do flow

year round. Recent reports describing surface storm-water hydrology in the surrounding area indicate that some of these drainages (particularly the first, second and fourth drainages, counting from the east) may be downcutting and eroding significantly due to several factors including impacts of storm-water runoff from developing areas to the north, soil type, climate change, agricultural practices, and property owner land-use practices.

Tree Groves

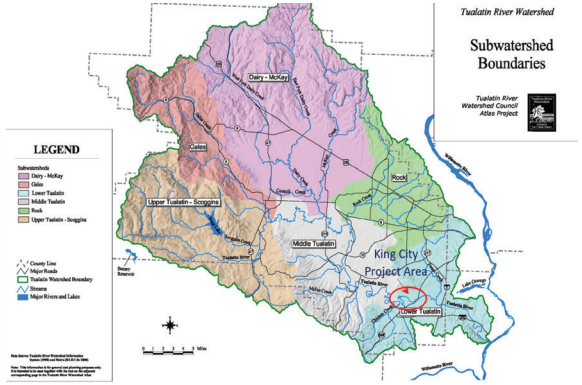
The URA supports a number of forested areas, particularly along the draining stream ravines and along the Tualatin River. Naturally vegetated areas and tree grove locations can be found in the Baseline report.

Cultural Area Resources

The Gustave Plieth House is listed on the National Register of Historic Places. The house along with several outbuildings were built beginning in 1890. "The farm complex is significant as an example of historical settlement in the country during the post frontier era. The number of outbuildings that remain intact adds support to the architectural merit of this resource." It is located south of SW Beef Bend Road, in the northern part of the plan area.

Existing Plans and Policies

Metro Title 13 of Metro's Urban Growth Management Functional Plan regulation requires that all cities and counties in the Metro area develop land use codes and policies that protect water quality and related fish and wildlife habitat. An inventory process which combines Regionally Significant

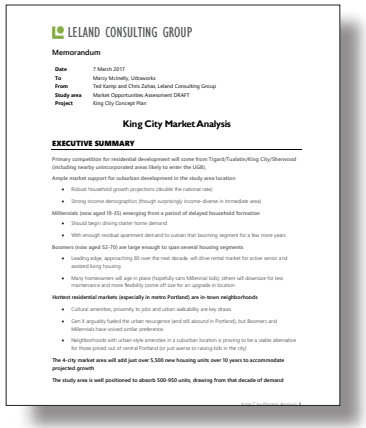


Sub-watershed boundaries map

Riparian & Upland Wildlife habitat, Habitats of Concern, and impact areas into one integrated layer provides a robust map of local intact habitat and hydrography systems – rivers, streams and floodplains – which are expected to encompass most natural wetlands in the area. It is possible, however, that not all jurisdictional wetlands are known in the URA because no detailed wetland inventory has yet been carried out.

Clean Water Services (CWS) provides stormwater services in Washington County and King Ci. It provides review and environmental service provider letters (SPL) for the City. This includes the review of vegetated corridors on streams and wetlands through a Pre-screening Site Assessment process to assess whether there are sensitive areas (wetlands, lakes, ponds, springs, streams, or rivers) within 100 to 200 feet of a proposed development activity. This buffer zone serves to protect water quality and other natural resources.

Gustave Plieth farm complex



LELAND CONSULTING GROUP

Memorandum

Date 7 March 2017
To Marcy McInelly, Urbsworks
From Ted Kamp and Chris Zahas, Leland Consulting Group
Study area Market Opportunities Assessment DRAFT
Project King City Concept Plan

King City Market Analysis

EXECUTIVE SUMMARY

Primary competition for residential development will come from Tigard/Tualatin/King City/Sherwood (including nearby unincorporated areas likely to enter the UGB).

Ample market support for suburban development in the study area location

- Robust household growth projections (double the national rate)
- Strong income demographics (though surprisingly income-diverse in immediate area)

Millennials (now aged 19-35) emerging from a period of delayed household formation

- Should begin driving starter home demand
- With enough residual apartment demand to sustain that booming segment for a few more years

Boomers (now aged 52-70) are large enough to span several housing segments

- Leading edge, approaching 80 over the next decade, will drive rental market for active senior and assisted living housing
- Many homeowners will age in place (hopefully cans Millennial kids); others will downsize for less maintenance and more flexibility (some off-size for an upgrade in location

Hottest residential markets (especially in metro Portland) are in-town neighborhoods

- Cultural amenities, proximity to jobs and urban walkability are key draws.
- Gen X arguably fueled the urban resurgence (and still abound in Portland), but Boomers and Millennials have voiced similar preference.
- Neighborhoods with urban-style amenities in a suburban location is proving to be a viable alternative for those priced out of central Portland (or just averse to raising kids in the city)

The 4-city market area will add just over 5,500 new housing units over 10 years to accommodate projected growth

The study area is well positioned to absorb 500-950 units, drawing from that decade of demand

Market Analysis Report, Leland Consulting Group, March 2017 (Appendix D)

Land Use Base Conditions

Existing Land Uses and Zoning Designations

King City Land Supply and Housing Types

Likelihood of Development

Constraints on Development Potential

Infrastructure Financing

OVERVIEW OF LAND USE BASE CONDITIONS

Introduction

The planning area is totally within Washington County. The county has land use and development authority over this area along with jurisdiction of the major roads serving the area. The land uses and development allowed in the study area is guided by the Washington County Comprehensive Plan. It is not within a special or community plan area.

Existing Land Use

The current land use in the planning area generally ranges from home sites of ½ to 4 acres on the east, larger rural residential and small agricultural properties in the central portion (1.2 to 10+ acres), and larger agricultural properties (up to 40+ acres) on the west. Non-residential and non-farm uses include a small airstrip (Meyer's Riverside Airport) and a commercial garden and landscaping supply business (Al's Garden and Home) on SW Roy Rogers Road.

Washington County Comprehensive Plan

The Washington County Comprehensive Plan, along with special area and community plans, sets goals and policies for land use and development within the county. In coordination with Metro, the county's plan recognizes URA 6D for future urban development.

Washington County Land Use Districts

There are four land use designations and one overlay zone within the planning area:

- RR-5 Rural Residential, 5-acre minimum (eastern portion)
- AF-10 Agriculture and Forest District, 10-acre minimum (central portion)
- AF-5 Agriculture and Forest District, 5-acre minimum (central portion)
- EFU Exclusive Farm Use (western half)
- Private Use Airport Overlay, Meyer Riverside Airport (central portion/AF-5 District)

The land use designations reflect the general land use pattern noted above, providing a gradual transition from low density residential development to agricultural parcels.

Surrounding Land Use and Zoning

The land uses and zoning in surrounding areas are governed by three jurisdictions: Washington County, city of Tigard, and city of King City. The existing zoning and land uses include a wide spectrum from developed urban areas to agricultural use as summarized in the Surrounding Land Use and Zoning Table.

Surrounding Land Use and Zoning Table

PARCELS	ZONE DESIGNATION	PRIMARY PERMITTED LAND USES AND DENSITY	LAND USE	METRO DESIGNATION
North	» *Washington Co. EFU*	*Agriculture, resource uses, farm-related residences and businesses, 80-acre min. parcel size (generally)*	» *Agriculture & rural homes*	» *Urban Reserve*
	» *Washington Co. R-6*	*Single & multi-family residential 5-6 units/acre, 4,500 sf min. lot size*	» *Urban residential*	» *Within UGB*
	» *Washington Co. R-15*	*Single & multi-family residential 12-15 units/acre, min. 2,100 sf lot size for detached units*	» *Urban residential*	» *Within UGB*
	» *Tigard R-4.5*	*Single family detached, 7,500 sf min. lot size*	» *Urban residential*	» *Within UGB*
	» *Tigard R-7*	*Single family attached & detached, 5,000 sf min. lot size*	» *Urban residential*	» *Within UGB*
	» *Tigard R-12*	*Full range of residential types, 3,050 sf min. lot size*	» *Urban residential*	» *Within UGB*
East	» *King City R-6*	*Same as Wash. Co. R-6 above*	» *Manufactured home park & single family residential subdivision*	» *Within UGB*
	» *King City R-9*	*Single & multi-family residential 7.2 - 9 units/acre, 2,400 min. lot size*	» *Single family residential subdivision*	» *Within UGB*
	» *King City R-12*	*Single & multi-family residential 9.6 - 12 units/acre, 2,000 sf min. lot size*	» *Single family residential subdivisions & apartments*	» *Within UGB*
	» *King City ROS*	*Recreation and open space uses*	» *King City Community Park*	» *Within UGB*
South	» *Washington Co. EFU*	*Above*	» *Agriculture & natural areas*	» *Rural Reserve & Undesignated*
West	» *Washington Co. EFU*	» *Above*	» *Agriculture & natural areas*	» *Rural Reserve*

King City Housing Supply

The most recent Census Bureau information for 2011-2015 indicates there were 1,836 dwelling units in the city comprised of about 1,314 single family detached, 235 single family attached, and 287 multi-family. King City has very little buildable land within its current city limits. The City of King City Housing Needs Analysis, February 2018 shows there are approximately 3.8 acres of unconstrained buildable acres in the city in the LC – Limited Commercial, R-9 – Small Lot and Attached Residential (9 du/ac), and R-12 – Attached Residential zones (12 du/ac).

Constraints on development potential

Natural areas and topography

Of the 528-acre area, between 70-200 acres are made up of flood plains, riparian areas and other sensitive lands. The developable lands are often divided by deep ravines and the land closest to the Tualatin River contains the most sensitive lands. Detailed analysis will need to be conducted during the master planning process to determine precise locations of sensitive areas off-limits to development.

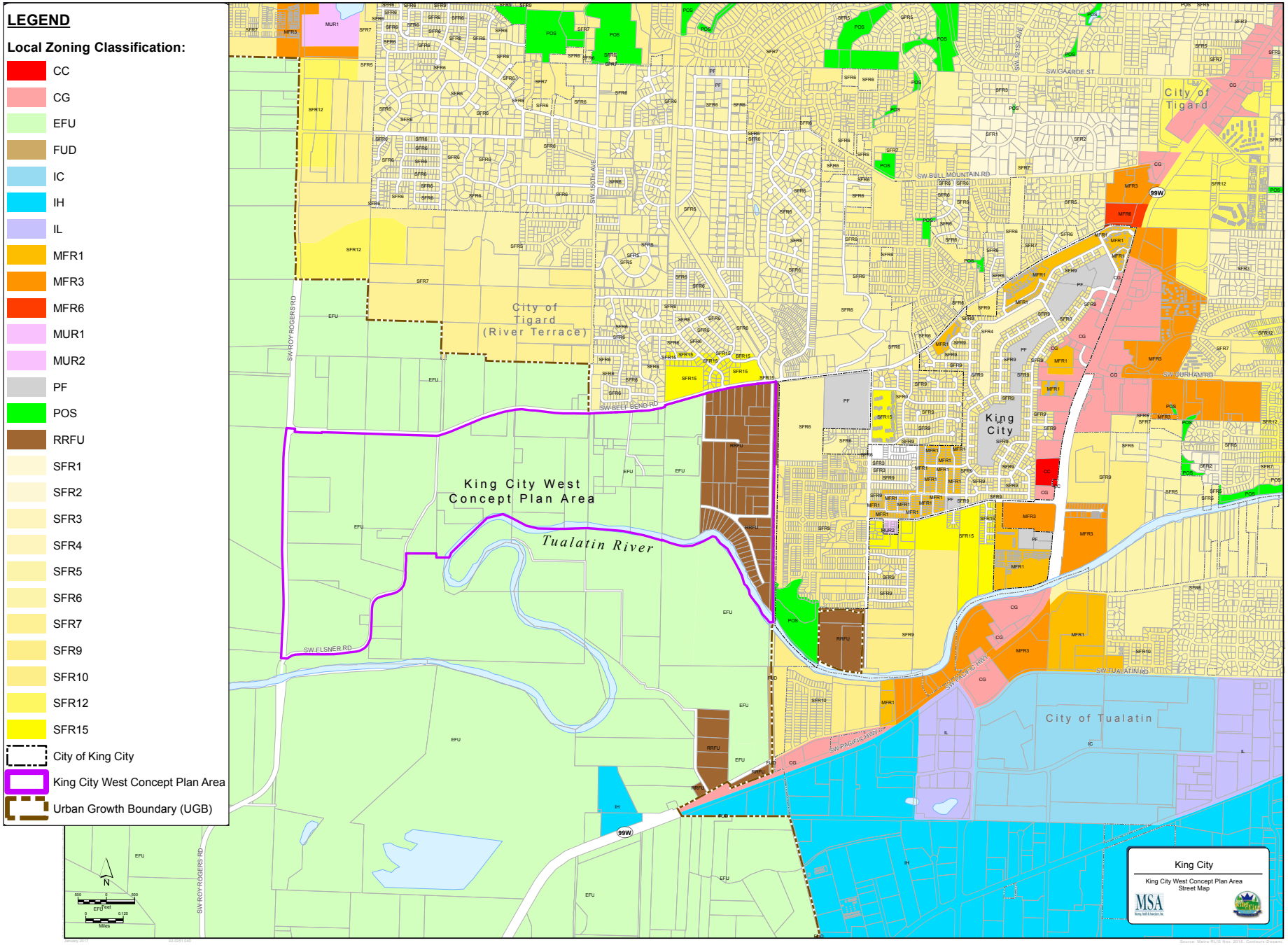
Property ownership patterns

Property ownership is fragmented, and includes both experienced developers who control large properties, and others who control smaller properties that may be difficult to develop due to access, slope, or environmental challenges. The western portion of the Plan Area has larger parcels and less ownership fragmentation. As a result, the western section is likely to see substantial coordinated development earlier than eastern or central portions.

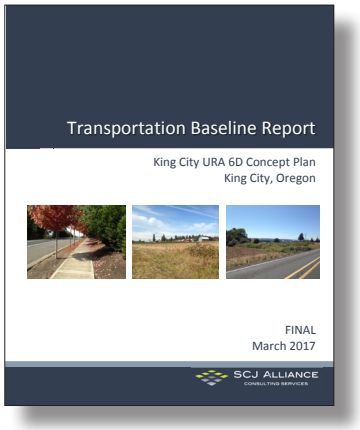
Infrastructure financing

Topography in the area south of SW Beef Bend Road presents specific challenges to infrastructure development – most notably by raising likely costs of any new east-west collector roads and sanitary sewer lines because of the increased need for culvert or bridge facilities.

The timing and availability of water service will be challenging for new development. Water system transmission piping will need to be extended on Roy Rogers Road and the city of Tigard will need to implement the water system storage improvements.



Zoning map of URA and surrounding areas (MSA)



Contents of Transportation Baseline Report

The Transportation Baseline Report (SCJ Alliance, March 2017, Appendix C) inventories existing physical conditions, policies and plans that apply to the area.

Existing Goals and Policies

Streets and Roads

Pedestrian Transportation System

Bicycle Transportation System

Transit System

Future Street and Roadway System

OVERVIEW OF TRANSPORTATION BASELINE REPORT

Introduction

The transportation system within the study area is minimal, however the area is bordered by two major streets: SW Roy Rogers Road on the west and SW Beef Bend Road on the north. SW Elsner Road runs through the western portion of URA 6D. Other existing streets in the study area are few and disconnected. A Transportation Baseline Report, authored by SCJ Alliance, summarizes existing and projected future transportation and traffic conditions in the vicinity of URA 6D. The report looks at the multimodal transportation system including street and system characteristics, pedestrian facilities, bicycle facilities and transit service.

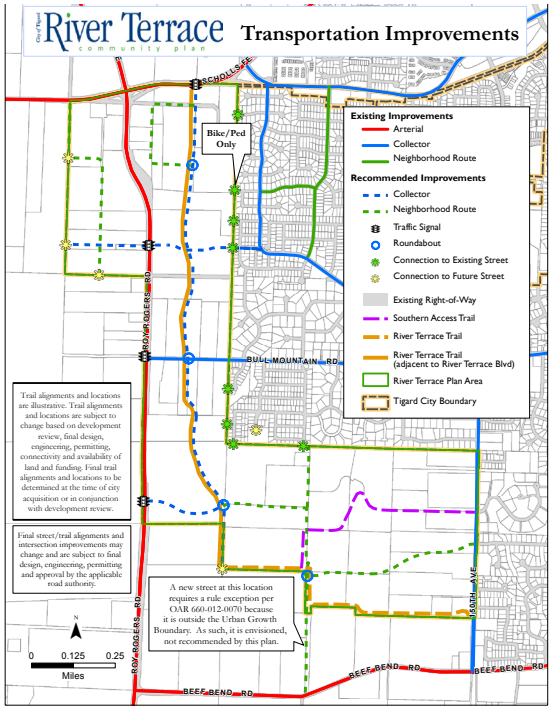
Connectivity

SW Beef Bend Road and SW Roy Rogers Road, both County arterial streets, run along the northern and western portions of the study area. Much of the local street network within the existing King City limits is fairly well connected in a north/south direction with multiple access opportunities for entering or exiting most neighborhoods. SW Fischer Road, a designated County collector street, provides good east/west connectivity through the existing residential portion of the city between Highway 99W and 131st Avenue. This street offers a potentially good future connection into the King City URA along with several other streets to the north.

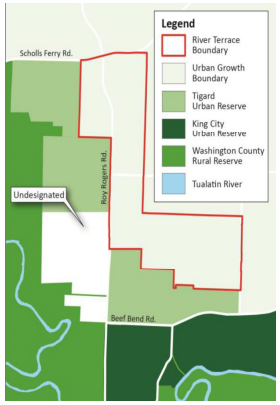
There are few other east/west connections that unite existing King City neighborhoods. Due to lack of connections, traffic relies primarily on SW Beef Bend Road and SW Fischer Road and SW Roy Rogers Road. This type of street network can result in out-of-direction travel for motorists and create an imbalance in traffic volumes. In addition to motor vehicles, direct connections contribute greatly to accessibility for pedestrians and bicyclists. Developing a local street network for the URA with good connections into the existing city will be important.

Tigard River Terrace

The transportation system proposed for Tigard's River Terrace development to the north provides structure and guidance to the system proposed for King City's URA. North/south internal roads and access locations onto SW Beef Bend Road proposed in the River Terrace Plan will need to be coordinated with the planning of this area.



Proposed transportation improvements from the River Terrace Community Plan.



Tigard's River Terrace area north of URA 6D

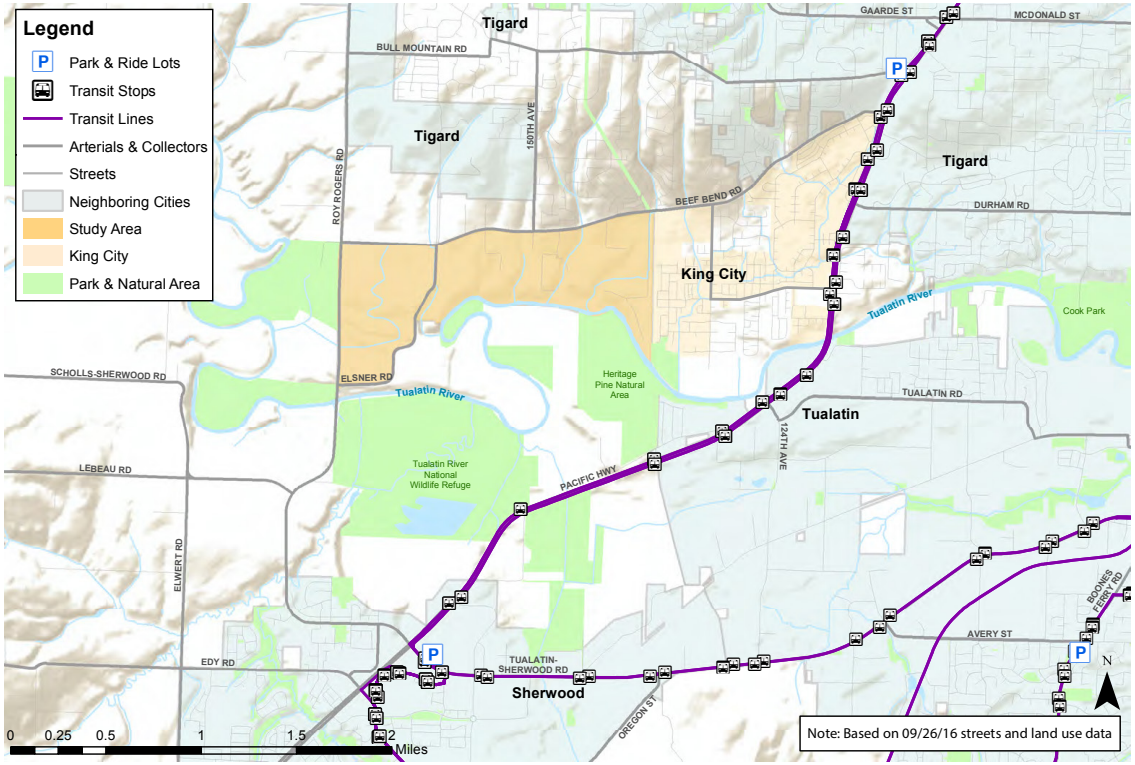
Spacing Standards

Washington County permits only arterial or collector streets to intersect with arterial streets. These intersections are allowed every 600 feet. King City has a 530-foot maximum spacing standard for local and collector streets.

Traffic Volumes and Performance

Existing

Daily traffic volumes along SW Roy Rogers Road are slightly less than 21,000 vehicles south of SW Beef Bend Road. Traffic levels rise further north on SW Roy Rogers Road to approximately 25,000 daily vehicles just south of Scholls Ferry Road. Daily traffic volumes on SW Beef Bend Road were about 5,300 vehicles east of SW Elsner Road. PM peak hour volumes range from approximately 9 to 10 percent of daily volumes, depending on location.



Existing transit service and park-and-ride lots near the study area (SCJ Alliance Baseline Report).

Projected

By 2035 with development of River Terrace and anticipated regional growth, two study area intersections are expected to exceed their adopted mobility standards – SW Roy Rogers Road at SW Beef Bend Road and Highway 99W at Durham Road.

Metro's Regional Transportation Plan (RTP) also notes that travel time along SW Beef Bend Road between Highway 99 and SW Roy Rogers Road is expected to increase significantly over the planning period.

Pedestrian and Bicycle Facilities

There are virtually no pedestrian or bike facilities in the study area. The rural character of existing streets means that walking and biking is mostly accommodated on existing roadway shoulders. Sidewalks have recently been constructed along the north side of SW Beef Bend Road for most of the area between 137th Avenue and 150th Avenue with a few short gaps. There are no protected pedestrian crossing locations along SW Beef Bend Road, which has a speed limit of 45 mph. Washington County is currently improving SW Fischer Road to add bike lanes and sidewalks from 131st Avenue to Pacific Highway.

There are no existing trails in the vicinity of the URA, however, there are trails just south of the study area in the Wildlife Refuge. Both the planned

Westside Trail to the east and the River Terrace Trail to the north of the study area provides opportunities for a larger connected trail system.

Metro Westside Trail The master plan lays out a detailed concept for establishing a 25-mile regional trail between the Willamette and Tualatin Rivers. When complete, a segment of the trail will run along the eastern edge of the study area and will provide a high quality connection between King City, Tigard and Portland for recreational and commuter bicyclists, pedestrians and, in some cases, equestrians.

Metro Tualatin River Greenway This trail, as proposed by Metro, would follow the Tualatin River through and beyond the study area, providing easy access between the river and a series of parks in the cities of Durham, Lake Oswego, Tigard and Tualatin.

Transit Service

Transit service is not currently provided within the King City URA, but two fixed bus routes are provided along the Highway 99W corridor and from this corridor to other destinations in nearby Tigard and Tualatin.

TriMet Southwest Service Enhancement Plan outlines a long-term vision to improve transit service in the southwestern portion of the Portland Metropolitan Area. Particularly pertinent to the King City URA are plans for service to connect Lake Oswego with King City via Durham Road (line 36), thus connecting the cities of Lake Oswego, Tualatin, Tigard and King City in an east/west direction.

Existing Policies and Plans

Transportation System Plan

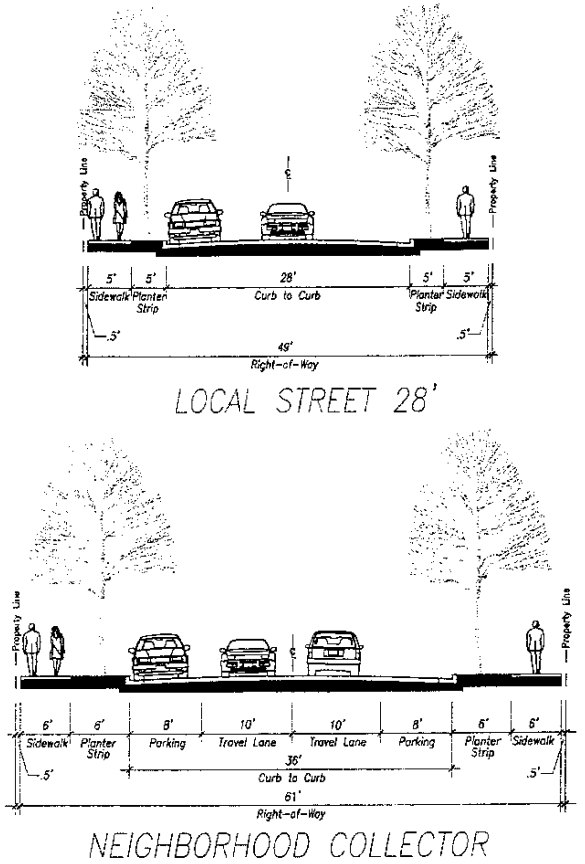
King City does not currently have an adopted Transportation System Plan (TSP) as most of the major roads within the City are owned and operated either by the County or the Oregon Department of Transportation (ODOT). The City's transportation responsibilities are largely limited to local streets. For the major streets, the City relies on the policy direction and recommendations of the Washington County TSP to guide development and management of its transportation system. The planning and development of the URA transportation system will have the direct involvement of King City, and therefore a TSP should be created for the City and the URA. The City has applied for a grant to produce a King City TSP and anticipates its creation within the next few years.

Street Classifications and Jurisdiction

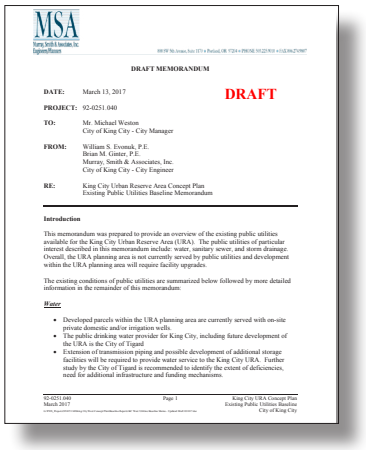
The study area has historically been a rural area governed by Washington County. The major roads adjacent to and serving the URA are under County jurisdiction including both arterials (SW Roy Rogers and SW Beef Bend Roads), and collectors (SW Elsner Road, SW Fischer Road and SW 131st Avenue).

The City is working in partnership with Washington County and anticipates a possible future jurisdictional transfer of collectors including SW Elsner Road and SW Fischer Road. This transfer would give the City more flexibility in the design of these streets, helping to transition it from rural to more urban.

The King City Comprehensive Plan provides policy guidance for development and operation of the multimodal transportation system within the city. The Comprehensive Plan also identifies the functional classification of several city streets and provides general guidance on street standards as they were developed for the West King City Planning Area. These street types are more urban in character.



Existing King City neighborhood street designs



DRAFT MEMORANDUM

DATE: March 13, 2017 DRAFT

PROJECT: 92-0251.040

TO: Mr. Michael Weston
City of King City - City Manager

FROM: William S. Evonuk, P.E.
Brian M. Ginter, P.E.
Murray, Smith & Associates, Inc.
City of King City - City Engineer

RE: King City Urban Reserve Area Concept Plan
Existing Public Utilities Baseline Memorandum

Introduction

This memorandum was prepared to provide an overview of the existing public utilities available for the King City Urban Reserve Area (URA). The public utilities of particular interest described in this memorandum include: water, sanitary sewer, and storm drainage. Overall, the URA planning area is not currently served by public utilities and development within the URA planning area will require facility upgrades.

The existing conditions of public utilities are summarized below followed by more detailed information in the remainder of this memorandum.

Water

- Developed parcels within the URA planning area are currently served with on-site private domestic and/or irrigation wells.
- The public drinking water provider for King City, including future development of the URA is the City of Tigard
- Extension of transmission piping and possible development of additional storage facilities will be required to provide water service to the King City URA. Further study by the City of Tigard is recommended to identify the extent of deficiencies, need for additional infrastructure and funding mechanisms.

92-0251.040 March 2017 Page 1 King City URA Concept Plan Existing Public Utilities Baseline City of King City

Contents of Public Utilities Baseline Report

The Public Utilities Baseline Report (Murraysmith, March 2017, Appendix E) inventories existing physical conditions, policies and plans that apply to the area.

Water: Existing System and Future Demands

Sanitary Sewer: Existing System, Planned Improvements and System Constraints

Storm Drainage: Existing System, Planned Improvements and System Constraints

OVERVIEW OF PUBLIC UTILITIES BASELINE REPORT

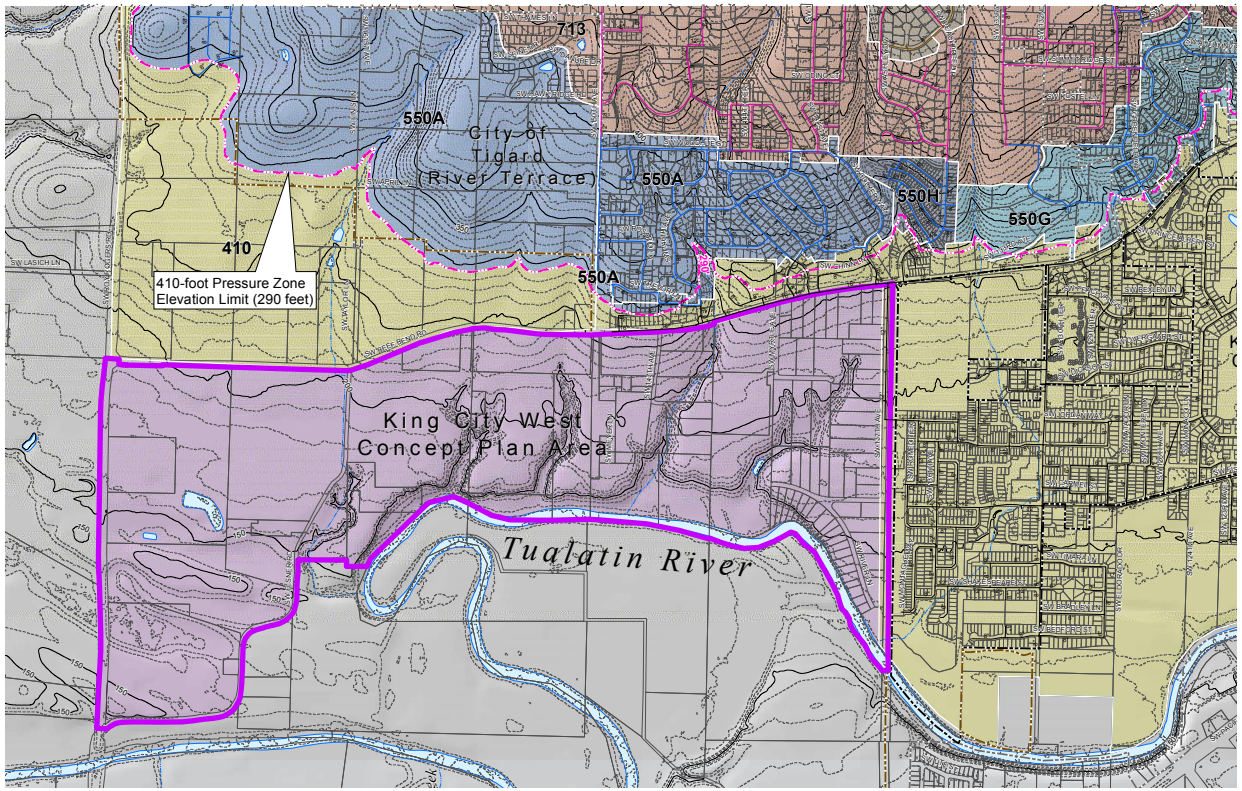
Introduction

Murraysmith and Associates (MSA) prepared an Existing Public Utilities Baseline Memorandum which details existing services in the urban reserve area. Due to the historically rural character of URA 6D, water is currently served by on-site private domestic and/or irrigation wells. Sanitary/sewer is served with on-site private septic systems and no formal stormwater management system is in place. These utilities are described in more detail below.

Water

Existing System

The City of King City receives potable water supply from the Intergovernmental Water Board, which serves Tigard, King City, Durham, Lake Oswego and the unincorporated Bull Mountain area. Under the terms of the Intergovernmental Agreement Regarding Water Service ownership and Water Service between the City of Tigard and the City of King City, dated December 9, 2014, the City of Tigard is responsible for planning, designing, building, financing, operating, maintaining, repair-



Water System map showing pressure zones (MSA)

ing and replacing components of the water system within King City's boundaries. Tigard will also serve areas annexed to King City, areas added to the urban Growth Boundary and any designated urban reserve where King City will ultimately be required to provide water service.

The city of Tigard is responsible for setting rates and System Development Charges (SDCs) for the entire water service area for recovery of costs associated with system management and capital improvements.

King City is located in the 410-foot pressure zone of Tigard's distribution system. There are seven existing reservoirs that provide gravity water supply to this zone. There are currently no 410-foot pressure zone reservoirs in the southwest portion of the Tigard water system service area.

Planned System Improvements

Tigard's 2010 Water System Master Plan did not address required system improvements to serve URA 6D. Tigard is currently in the process of updating the Water System Master Plan. Based on preliminary analysis and discussion with the City, improvements will likely consist of construction of new 410-foot pressure zone storage on the southwest side of Bull Mountain and extension of 24-inch diameter transmission piping west on SW Beef Bend Road and south through the River Terrace area on SW Roy Rogers Road.

Sanitary Sewer

Existing System

Clean Water Services (CWS) provides wastewater collection, treatment and disposal service for King City. Wastewater from King City is generally collected via 6-inch to 8-inch diameter sewer mains and then routed south across the Tualatin River and then east to the CWS Durham Wastewater Treatment Plant. Developed parcels within the URA planning area are currently served by private on-site septic systems.

Planned System Improvements

CWS is currently planning a new waste water pump station to be located in the west of the URA adjacent to Roy Rogers Road. The pump station will serve River Terrace South and other development to the north. The pump station is being planned with the capacity to serve development in the study area.

Sanitary Sewer Constraints

Because of the natural topography and existing drainage ways withing the King City URA, low-lying areas may require pumping to reach gravity trunk lines and will require significant planning efforts in conjunction with transportation planning.

Storm Drainage

Existing System

CWS is the primary agency responsible for surface water management in King City through an intergovernmental agreement. The storm drainage system in and around King City is comprised of both underground piping, open channel drainage ditches, and natural drainage ways. Generally, storm water flows down gradient from north to south through the city, with ultimate discharge to the Tualatin River through numerous outfalls. The King City URA is mostly undeveloped and generally lacks improved stormwater conveyance and detention facilities. The existing natural drainage ways are susceptible to erosion and degradation during high flow runoff events.

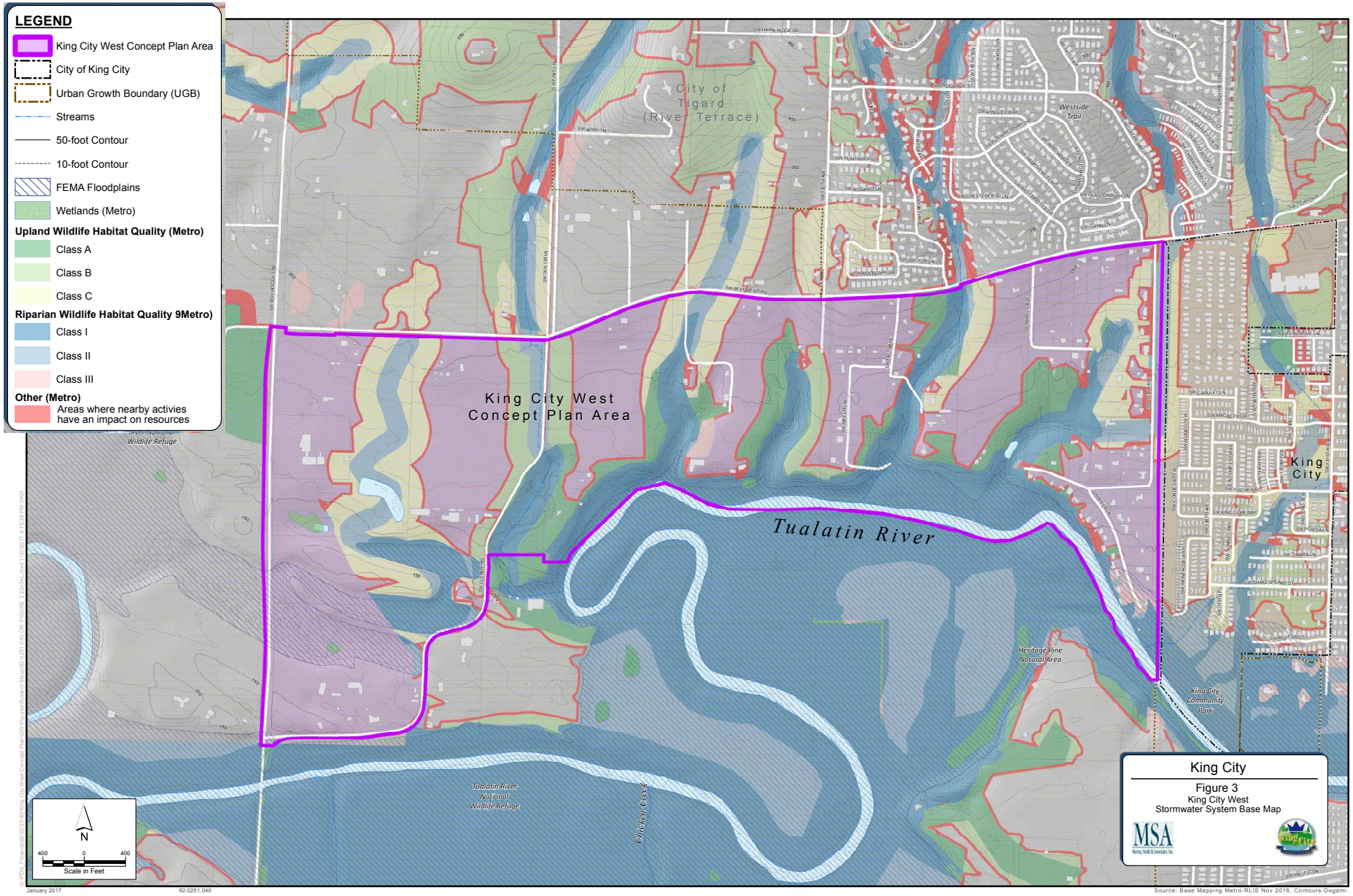
Planned Improvements

Future development within the planning area should be coordinated with current upstream planning efforts to mitigate high flow events and prevent further degradation of the existing drainage ways.

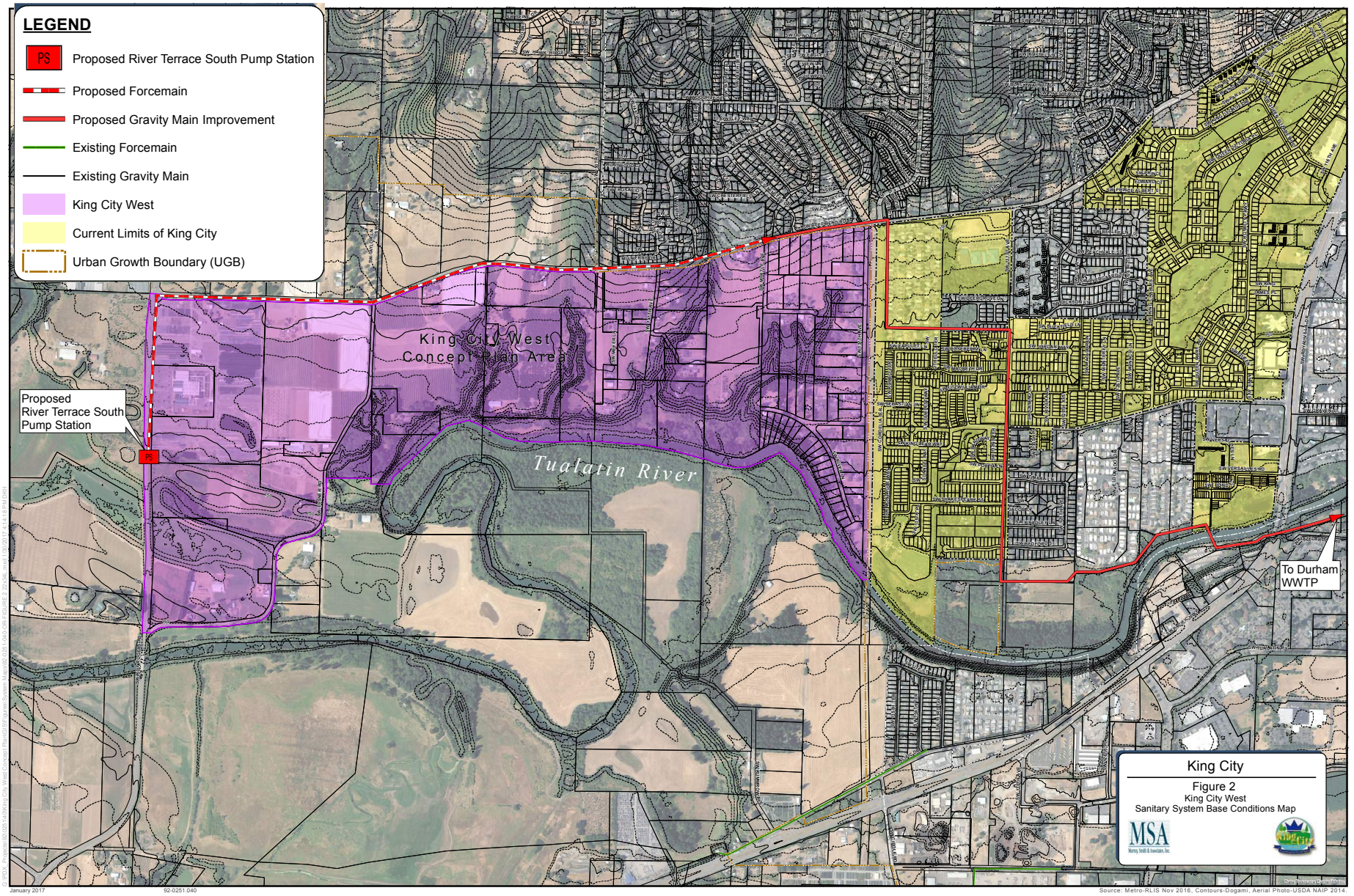
Storm conveyance needs to be developed in coordination with future transportation projects.

Storm Drainage Constraints

New development in the URA must meet CWS requirements and it should not create adverse impact to the existing drainage systems. CWS should be consulted on stormwater management issues for any new development. New development must conform to current CWS standards including drainage channel setbacks, hydrologic and hydraulic analysis, off-site improvements, stormwater detention, and water quality. In addition, impacts to existing wetlands and waterways will need to be in compliance with current Department of State Lands (DSL) and Army Corps of Engineers (ACE) standards.

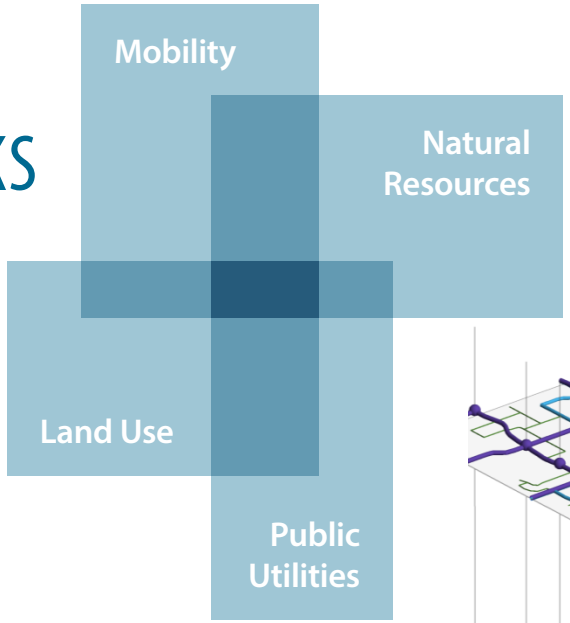


Stormwater system map (MSA). The red line represents areas where nearby activities have an impact on resources.



Sanitary system map showing major existing and planned sewer lines. (MSA)

5. CONCEPT PLANNING FRAMEWORKS



INTRODUCTION

This Base Conditions phase culminated in a synthesis, or layering, process of mapping the physical and regulatory opportunities and constraints. The layering process established the Design Frameworks which informed the Vision and Goals and guided the Concept Plan proposal.

What we learned from the process over the last year is that a balance can be achieved between goals for Natural Resources, Mobility, Land Use and Public Utilities.

Natural Resources: It is possible to set aside a large amount of the area, in order to protect and preserve sensitive natural areas.

Land Use: Even with a large amount of the URA 6D set aside for natural areas, enough land is developable to provide a range of housing types at different densities while maintaining graceful transitions between natural and developed areas. How and where development occurs will be driven by individual property owners. Development can be phased so that property owners who want to develop early can do so without compromising the quality of life for those who do not.

Mobility: Early-phase connections can be made, toward the north of the URA 6D (connecting with Tigard's River Terrace Boulevard) and interim connections can be made to the east. Ultimately, one or more parallel east-west connecting streets will be made to connect the area to existing King City, but the nature and design of these streets can be responsive to neighborhood concerns.

Infrastructure: Because of the topography and natural features, serving the area with infrastructure can be expensive, however, there is sufficient development potential to support infrastructure costs. Infrastructure costs are competitive with infrastructure costs for nearby development. Infrastructure can be provided in accordance with different property owners wishes: Those who want to move quickly can, without forcing those who want to move slowly. Even if some property owners choose not to redevelop, the infrastructure plans can still go forward to serve early-phase development.

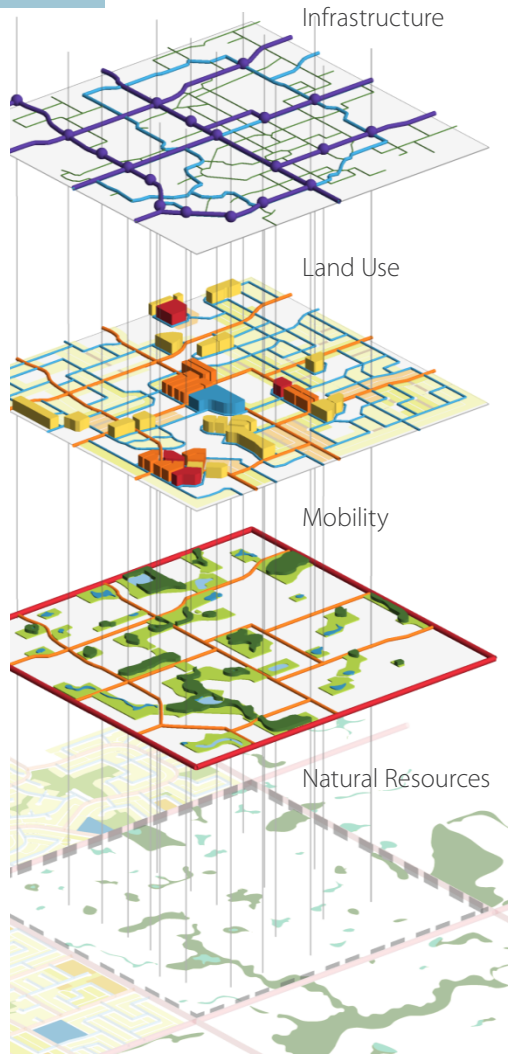


Diagram of base conditions layers

Natural Systems Framework

Natural Resources

Base Conditions Key Findings

- Past development (primarily north of Beef Bend Road) has caused significant environmental degradation in URA 6D.
- Mitigation of development impact to natural resource areas will be required in the URA.
- Future land development and the local street and trail/walkway network will need to address natural resource impacts and mitigation.

Framework Design Philosophy

- Development in the URA 6D provides an opportunity to improve water quality and wildlife habitat and ultimately improve the health of the Tualatin River.
- The naturally forested areas and ravines provide natural boundaries and definition of the developable areas.
- Adopt a conservative approach to protecting natural areas.
- Assume clustered development.

The natural systems framework is a set of values that dictate how development in the URA 6D will take shape. It starts with nature.

The Vision and Goals articulate each of the values. For the purpose of this section the values have been interpreted into design and planning framework accordingly: As the last developable piece of land between upland neighborhoods and the Tualatin River, the URA 6D Concept Plan recognizes the importance of careful planning and design, to ensure that there is a progression of physical transitions from north to south, between the river and developed areas. First, the most sensitive areas are protected from development; next, development in less sensitive areas will be specially designed to prevent damage to the environment, and then, in developed areas, active environmental repair will be built into the urban fabric.

New development will play an important role in repairing the damage caused by earlier development. Through highly engineered stormwater facilities or through small interventions such as stormwater gardens built into backyards, there are a variety of treatments that are appropriate for each zone of the transition, from the most wild edge areas to the most urbanized central areas.

Moving east-west, the natural areas and ravines create boundaries between and give identity to individual neighborhood units. Finally, the Tualatin River is celebrated and recognized in every aspect of new development. Both by proximity and through intentional design, people will be drawn to the area because of the river and the wildlife refuge.

"Bull Mountain stormwater runoff is a huge problem. The current plan area is acting like a giant bioswale and cleaning the water before it gets to the river. That would change if this area is developed."

--SAC Member, SAC Meeting #1

"Better protection for the Tualatin River can be provided through development, through a combination of solutions for stormwater, such as green streets, local and regional stormwater solutions."

--TAC Member, TAC Meeting #2

APPROACH TO SENSITIVE AREAS

Past development (north of Beef Bend Road) has caused significant environmental degradation in the planning area. In conjunction with future development of the area, partnerships should be formed to address the existing problem and to adequately mitigate potential negative impacts from additional development. Maintaining the health of the Tualatin River and wildlife habitats is critical to the protection of natural systems and the preservation of the essential character of the URA. While the Natural Systems Baseline report assumed a more generous amount of developable area, an even more conservative approach was used to determine developable land for the Concept Plan. The following categories are assumed to be protected for the purpose of this Concept Plan. More detailed assessments of these designations will be conducted during the Master Plan phase:

- FEMA floodplains
- Metro Wetlands
- Class A, B, and C Upland Wildlife Habitat
- Class I and II Riparian Wildlife Habitat Quality
- Local Wetland Inventory (LWI)
- Significant Natural Resources Inventory (SNR)

The City may also want to consider a tree protection plan and a Department of Geology and Mineral Industries (DOGAMI) hazard map study of the area during the master planning phase.

Developable Acreage Table

Total land	528 acres
Developable land identified by the Natural Resources Baseline Report	460 acres
Consistent with the Natural Systems framework design philosophy for URA 6D, the Concept Plan goes beyond Base Conditions developable land assumptions.	318 acres

ALIGNING WITH THE VISION

- *Protect the Tualatin River, sensitive wildlife habitat and other natural systems*
- *Reduce runoff and heal erosion*
- *Integrate green spaces and wetlands into developed areas*

Protected natural area with no development and little or no human activity

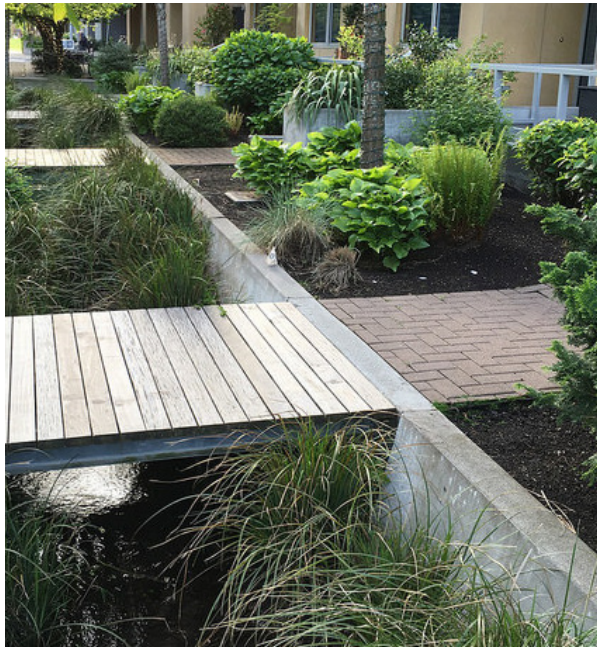
Active stormwater management pond surrounded by park and walking trails

Stormwater facility adjacent to a protected wetland

Wild

Examples of nature protected from development and incorporated into development

Street-side Low Impact Development (LIDA) swales



Vegetated swales in more urban setting of sidewalks and residential entrances

Creative ways to manage stormwater and integrate natural systems into highly developed areas

Examples of the Natural Systems Framework design approach, from wild to urban

Urban

Land Use Framework

Land Use

Base Conditions Key Findings

- The area is surrounded on two sides by existing or imminent urban development.
- The market supports a wide range of housing types to meet current and future demographics.
- The location is well positioned in the region to capture housing growth, and there is significant development demand within the first ten years.
- There is modest commercial, hospitality and mixed-use development potential on the west side, adjacent to Roy Rogers and Beef Bend streets.
- From the development marketing perspective, the area's unique physical characteristics provide "strategic differentiators," that can create value for the area and the city.
- Creating a unique sense of place will be key to attracting high quality development.
- Property owners have different attitudes regarding redevelopment and some are not interested in being part of an urbanizing area.
- Serving the area with infrastructure (utilities and streets) will be expensive.

Framework Design Philosophy

- Assume there are a range of opportunities for development: one that permits property owners who want to develop, and one that permits others to develop slowly and incrementally, or not at all.
- Assume the more immediate development will occur on the west side of the URA 6D within first ten years and slow incremental development will occur over a longer period on the east side.
- Concentrate the intensive mixed land uses and development types to the west.
- Identify the minimum development yield or number of dwelling units that will be needed to pay for infrastructure, including utilities, streets and parks.
- Identify the maximum development yield or number of dwelling units that could be achieved while meeting the community vision and goals.

OVERVIEW AND CONSISTENCY WITH THE VISION

The URA is envisioned as a diverse mix of development contexts, with a careful sensitivity to the transition between rural and urban areas. Because the development concept features the higher density uses in the western and northern portions of the area, it is critical to create gentle transitions between developed and natural areas. A gradient of density is desired, where the most dense development is on the west and closest to SW Beef Bend Road on the north. Moving east, neighborhoods become more residential and are defined by the natural edges of the ravines. The least dense areas would be furthest to the east and along the Tualatin River. A series of neighborhood types and general locations (character areas) have been identified, each with their own mix of uses and specific contexts. They are described in more detail on the following pages.

As Tigard's River Terrace neighborhood to the north is built out, there will be numerous opportunities to for King City and Tigard to connect to and share neighborhood amenities. Concept planning for URA 6D has attempted to recognize these opportunities and build on them. Tigard River Terrace Boulevard, for example, which runs north-south through Tigard, is planned to connect to the URA 6D north-south collector street through King City's Main Street/Town Center neighborhood. Similarly, the layout of parks, trails, streets and land uses in the URA 6D have been located and conceptually designed to function for and appeal to Tigard and Washington County residents, as well as for future King City residents. It's not likely that residents in the area will recognize which municipality provides a particular amenity—but they will recognize that it makes their neighbohood great.

In addition to maintaining compatible relationships between different development types within URA 6D, and connecting to neighborhoods to the north, attention must also be given to protecting existing development and resource uses which are to the south and west. The most important of these are areas which are not within the UGB and are not designated as urban reserve areas. The Tualatin River and associated floodplain provides a natural buffer between future development in URA 6D and the National Wildlife Refuge and agricultural uses to the south. The Main Street / Town Center area will be separated from designated rural areas to the southeast of SW Elsner Road and on the west side of SW Roy Rogers Road. During the master planning phase, land use and design techniques should be identified to minimize adverse impacts to rural uses and agricultural activities in these areas.

ALIGNING WITH THE VISION

- » *Mix of housing to accommodate a wide range of household types, incomes and needs*
- » *New mixed use area with neighborhood scale and character*
- » *Gentle transitions between rural and urban development*

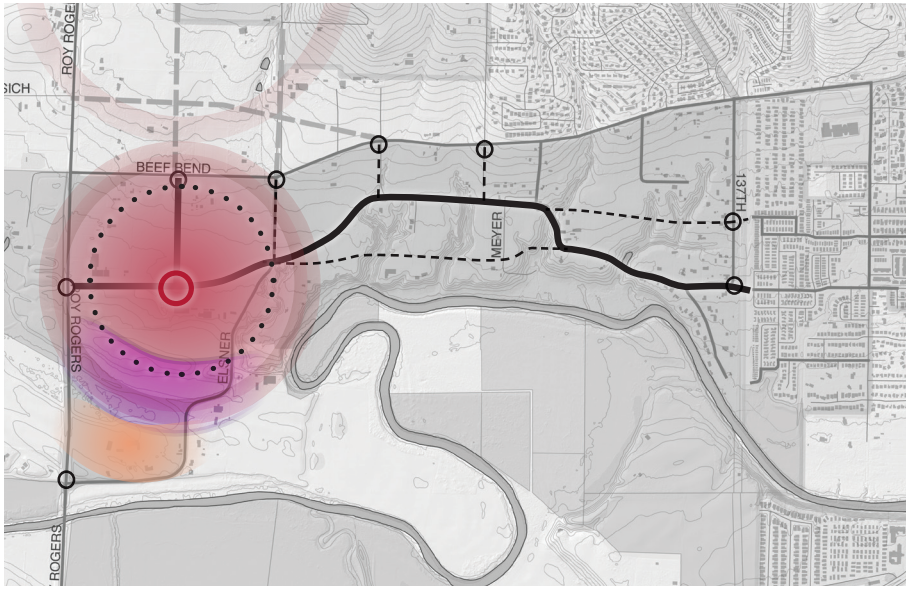
NEIGHBORHOODS

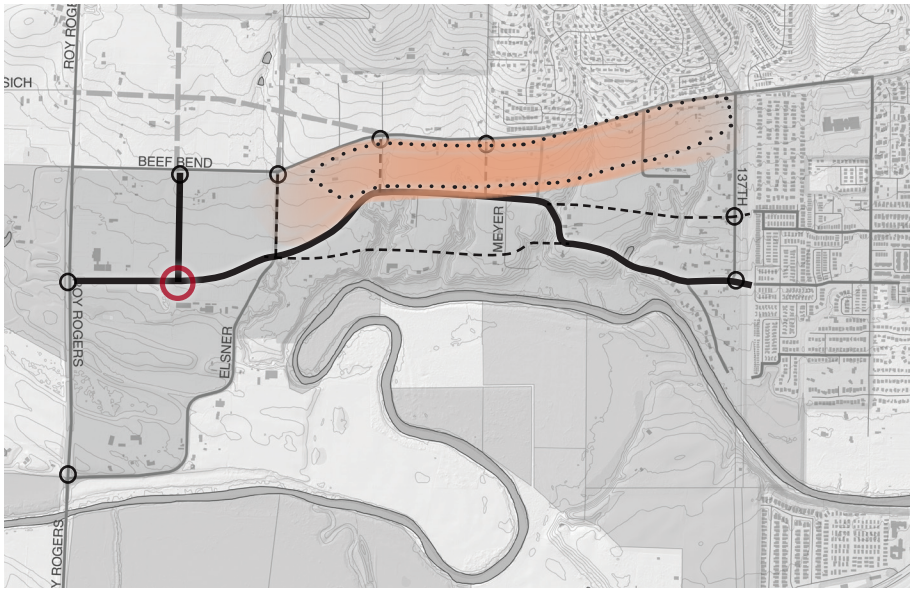
Main Street/Town Center

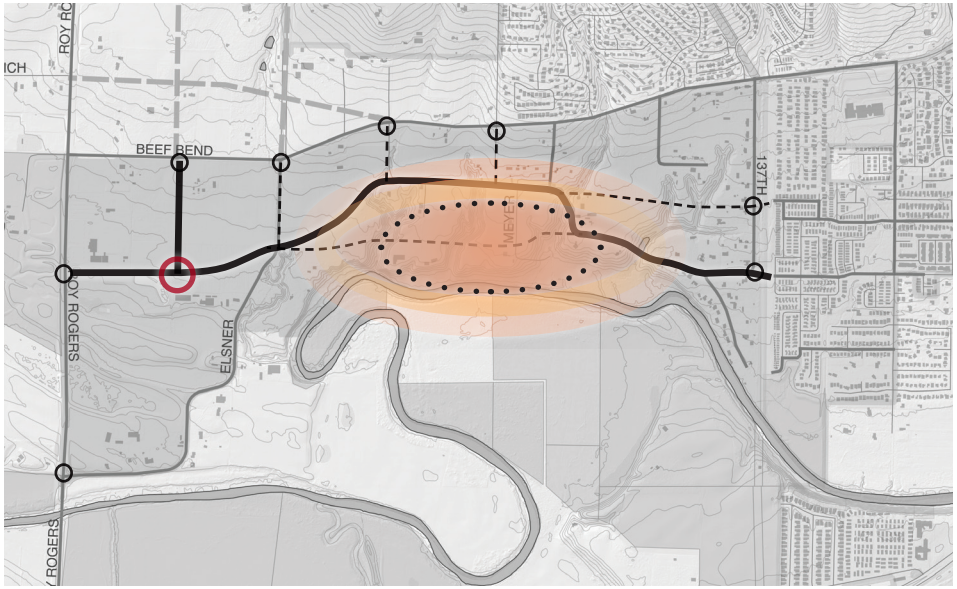
The main street/town center character area is in the north-western area of the URA. It would include majority of town center commercial and mixed use residential uses, with major activity around the intersection of collector streets visible and accessible from SW Roy Rogers Road and SW Beef Bend Road. This neighborhood will represent the most dense development in the URA and would include possible civic uses such as a new city hall, school and library, to be further defined in the Master Plan process. Neighborhood-scale commercial activity is desirable, as are public plazas, parks and other places for gathering. The southern portion of the Main Street area is envisioned to accommodate a school and campus-style mixed employment and, possibly, institutional uses. As urban development occurs, care will be taken to separate the Main Street/Town Center area from designated rural areas to the southeast of SW Elsner Road and west of SW Roy Rogers Road.

Beef Bend Neighborhood

The Beef Bend character area is directly adjacent to SW Beef Bend Road to the south, between 137th and SW Elsner Road, north of a potential east/west street. This area is defined by improvements to SW Beef Bend Road and has the second highest density, with both attached and detached residential development. There is potential for this area to support a small amount of neighbor-hood-scale commercial uses in conjunction with housing. Commercial uses would take the form of home-based businesses, and, if there is market demand, office or retail uses on the ground floor of residential buildings. The Beef Bend Neighborhood is connected east-west, and not constricted by the deep wooded ravines farther to the south in the URA.







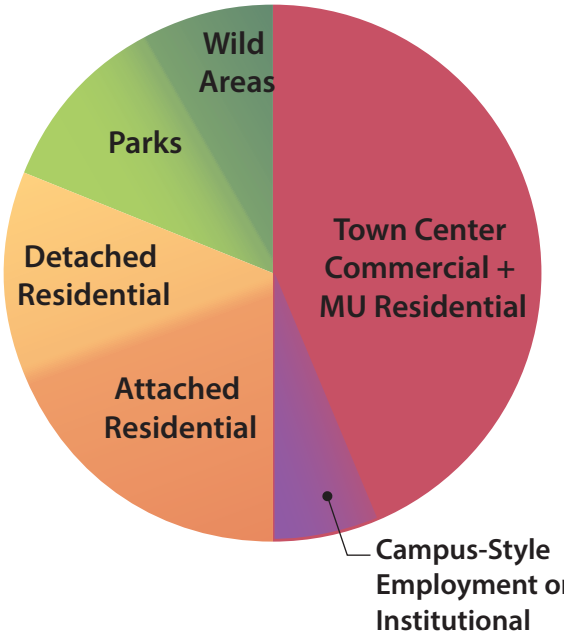
Central Neighborhood

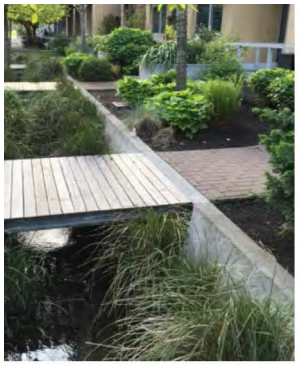
The central neighborhood character area is in the center of the URA. Two smaller neighborhoods are defined by the drainage ravines running north-south towards the Tualatin River. The ravines create separate areas that are well-sized for individual developments, but are connected by a small number of east-west streets and a trail system. This character area is defined as residential, with both attached and detached dwellings, ample neighborhood parks and plenty of wild natural areas along the ravine and river edges.

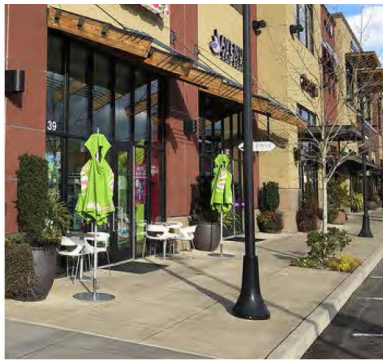
Rural Character Neighborhood

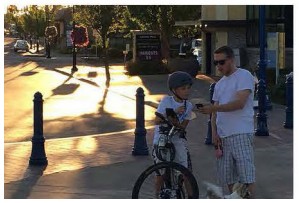
The rural character neighborhood is the eastern-most section of the planning area. It connects to SW 137th Avenue and includes the established Rivermeade neighborhood. This area has a rural character, with low density residential uses and opportunities for modest redevelopment. Generally, streets have a residential character and carry low-volume local traffic shared by all modes. Natural areas are prominent both on the edges of development and within neighborhoods.

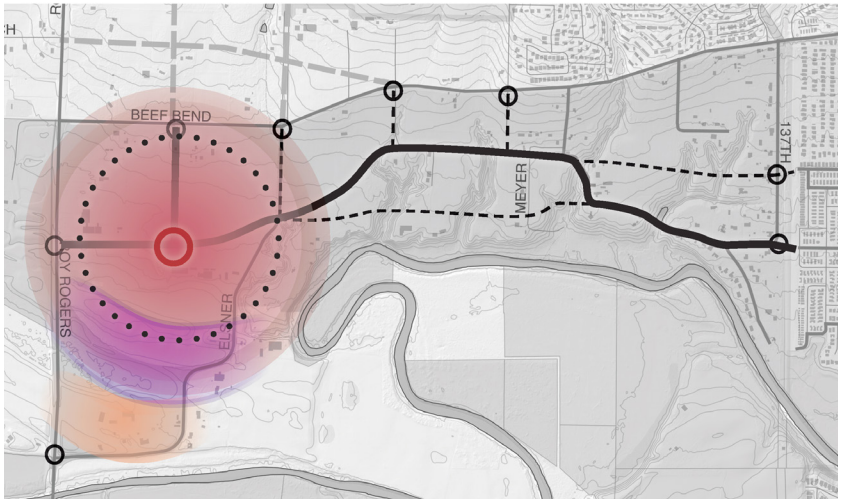
MAIN STREET/TOWN CENTER





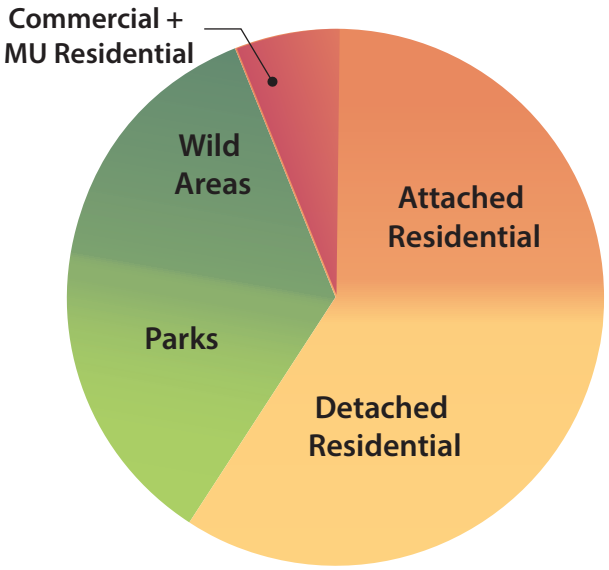


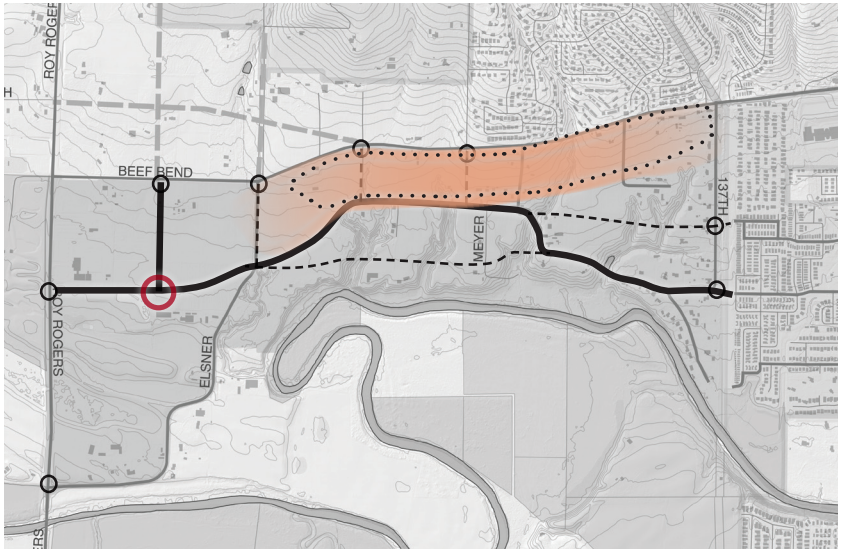




- » *Major activity at intersection*
- » *Taller buildings, residential over retail*
- » *3-5 story buildings*
- » *Single-story retail and restaurant*
- » *Civic uses, such as library, city hall, school*
- » *Places for gathering*
- » *Campus-style employment or institutional uses*

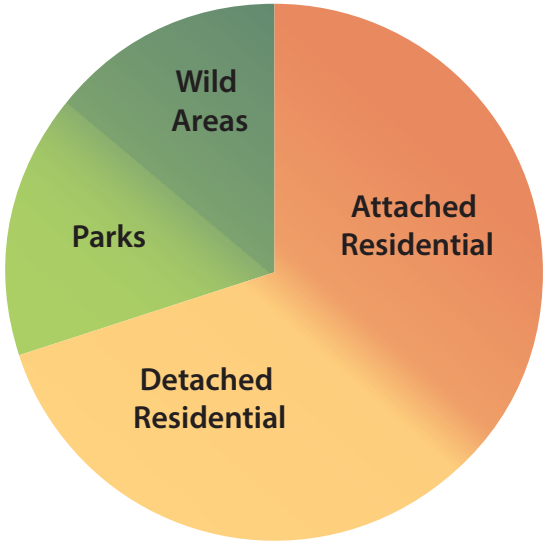
BEEF BEND NEIGHBORHOOD

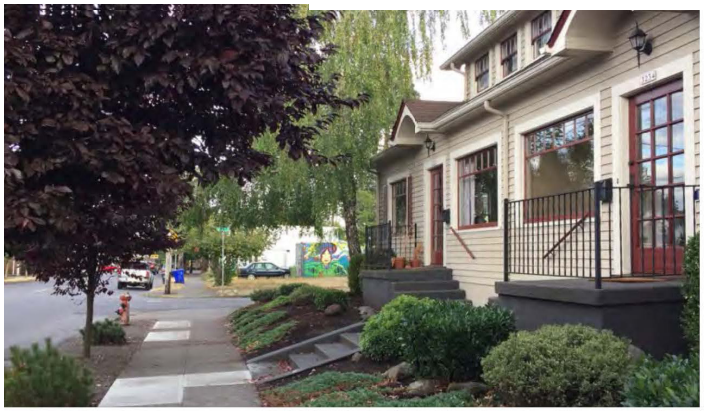


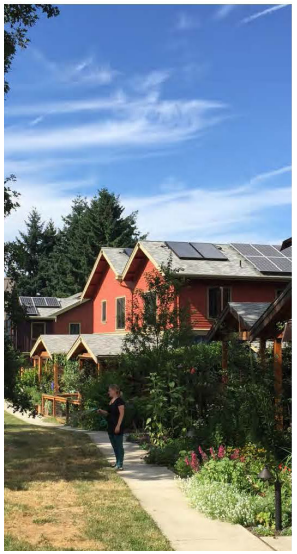


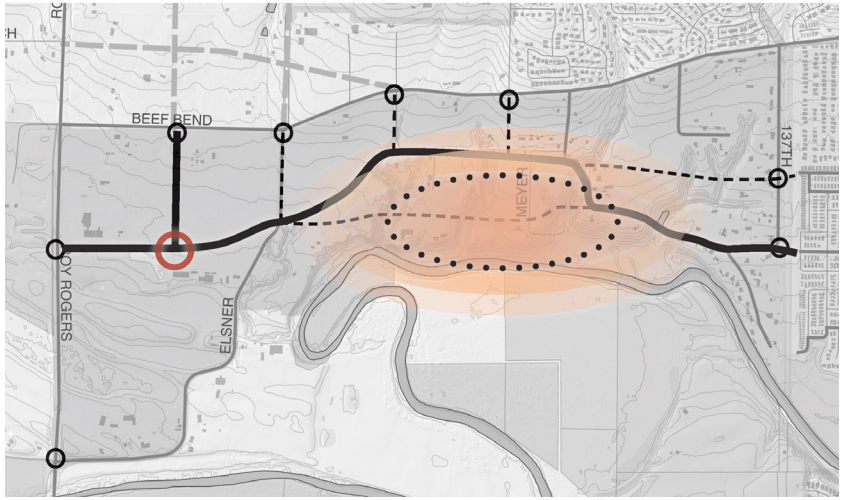
- » *Green boulevard (Beef Bend) with separated multi-use path*
- » *Attached and detached residential development*
- » *Connected neighborhoods*
- » *Parks and some wild areas*
- » *Potential neighborhood commercial activity*

CENTRAL NEIGHBORHOOD



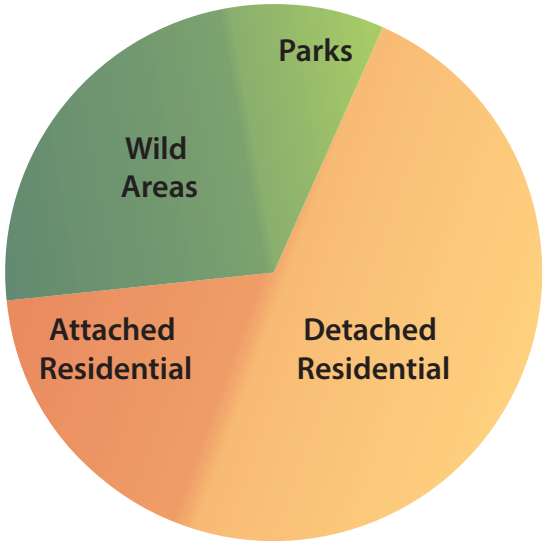




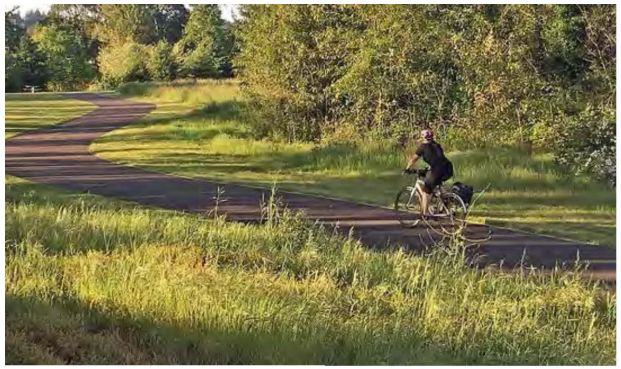


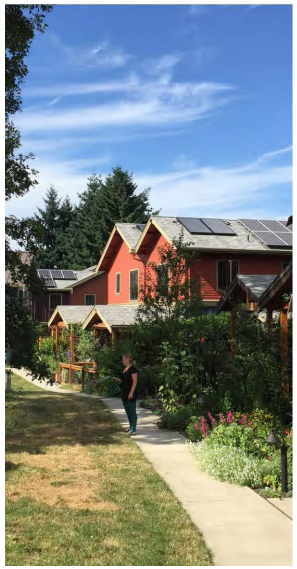
- *Residential character*
- *Connected neighborhoods*
- *Primarily attached and detached single family homes*
- *Parks and open spaces*
- *Natural areas on the edge*

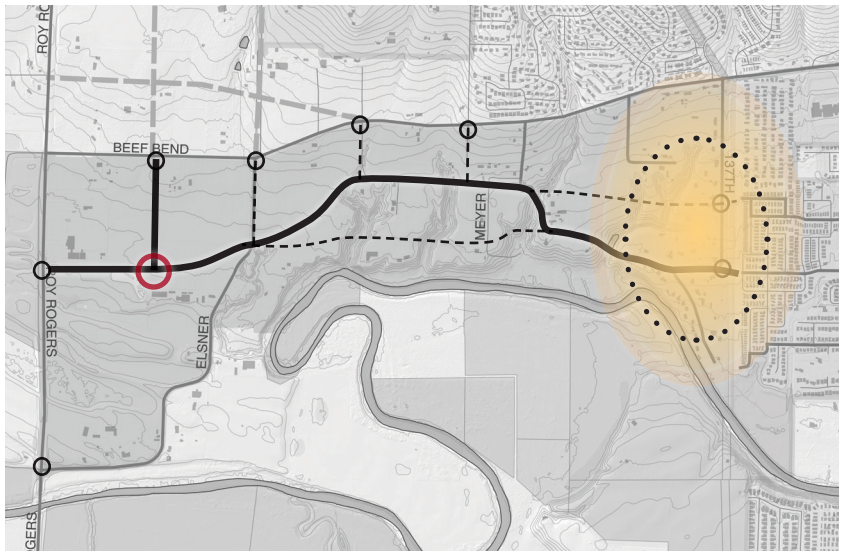
RURAL CHARACTER NEIGHBORHOOD



- *Rural and low density residential character*
- *Streets shared by all modes*
- *Modest redevelopment*
- *Minimize paved areas*
- *Low volume traffic*
- *Natural areas on the edge and within neighborhoods*



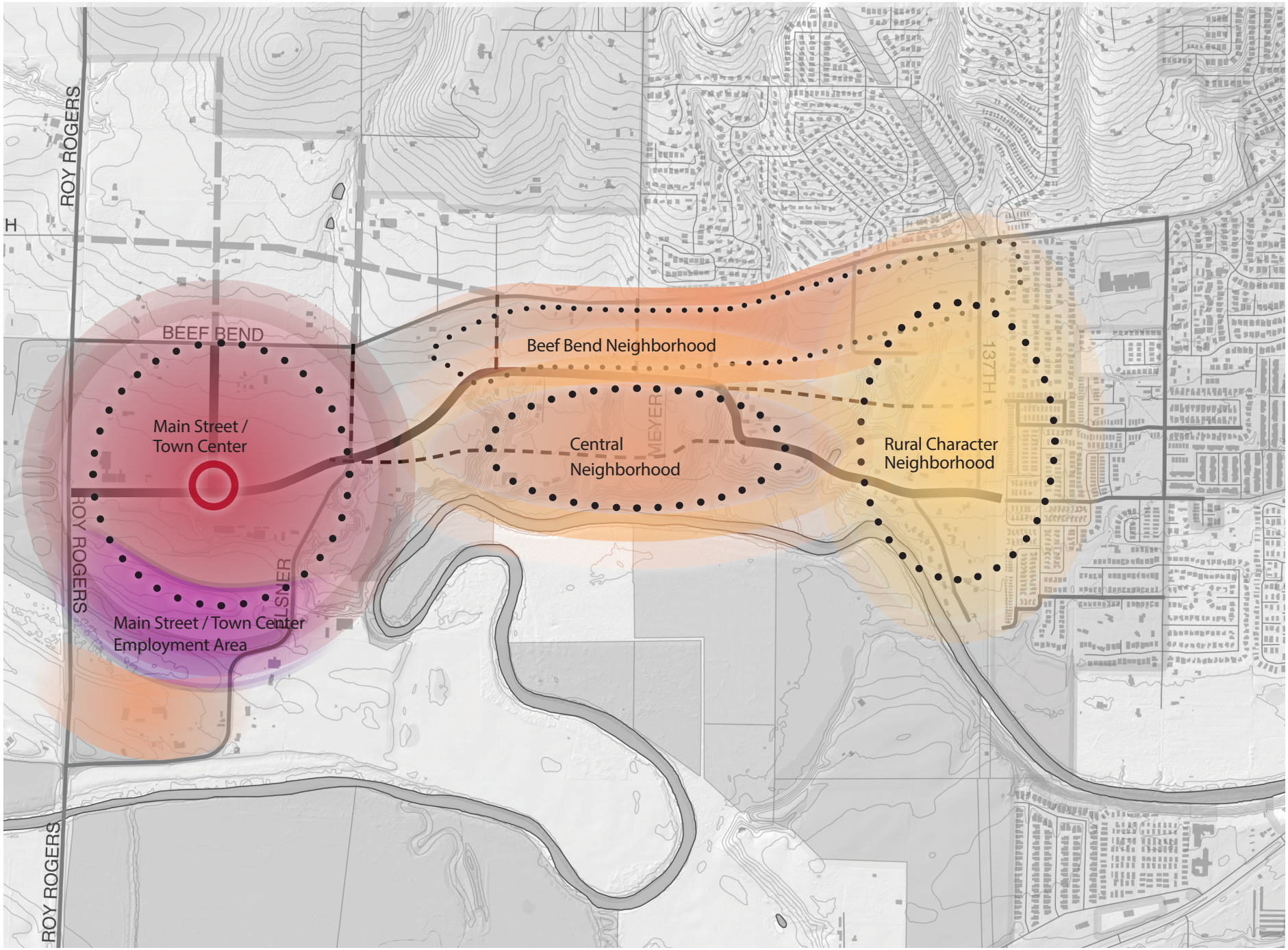




Summary of Dwelling Unit Type and Density by Neighborhood

Dwelling Type Category	Dwelling Type	Main Street /Town Center		Beef Bend		Central Neighborhood		Rural Character		Totals	
		Subtotal by dwelling type	Subtotal by dwelling category	Subtotal by dwelling type	Subtotal by dwelling category	Subtotal by dwelling type	Subtotal by dwelling category	Subtotal by dwelling type	Subtotal by dwelling category	Subtotal by dwelling type	Subtotal by dwelling category
Multidwelling	Flats over retail	400	1,000	0	222	0	0	0	0	400	1,222
	Flats in standalone building (Main Street)	500		0		0		0		500	
	Flats in standalone building (Boulevard)	100		222		0		0		322	
Single dwelling, attached	Live-work or rowhouse	300	500	0	0	30	60	0	0	330	560
	Duplex	200		0		30		0		230	
Single dwelling, detached	Cottage cluster	66	620	50	444	24	498	50	232	190	1,794
	Narrow lot	199		250		30		0		479	
	Mid lot with ADU	249		144		144		82		619	
	Mid lot, no ADU	106		0		300		100		506	
Totals			**2,120**		**666**		**558**		**232**		**3,576**

The amount of housing in the plan area at full build out has been estimated by Urbsworks to be approximately 3,500 units. During the Concept Plan phase, Urbsworks calculated 3,816 units were achievable. As Main Street/Town Center planning progressed, 20 acres of employment were added to the development program. This caused a reduction of housing numbers, to 3,576 total units. Traffic analysis (in a separate report) is based on a lower residential build out.


ROY ROGERS
BEEF BEND
Beef Bend Neighborhood
137TH
MEYER
Main Street /
Town Center
Central
Neighborhood
Rural Character
Neighborhood
ROY ROGERS
ELSNER
Main Street / Town Center
Employment Area
ROY ROGERS

DEVELOPMENT POTENTIAL

Residential Development

King City's primary market competition for residential development comes from Tigard, Tualatin and Sherwood, including nearby unincorporated areas likely to enter the UGB. The 4-city market area will add just over 5,500 new housing units over 10 years to accommodate projected growth. The URA 6D Concept Plan area is well positioned to absorb 500-950 of those units within the first ten years (per Leland Consulting Group Market Analysis Report).

The amount of housing in the plan area at full build out has been estimated by Urbsworks to be approximately 3,500 units. During the Concept Plan phase, Urbsworks calculated 3,816 units were achievable. As Main Street/Town Center planning progressed, 20 acres of employment were added to the development program. This caused a reduction of housing numbers, to 3,576 total units. Traffic analysis (in a separate report) is based on a lower residential build out.

According to Urbsworks, additional residential development could amount to more units over time, developed in a manner that is consistent with the community's vision to preserve natural areas, provide great neighborhoods with an integrated mix of housing types, and ensure graceful transitions between development of varying densities and natural areas. Of course, development above 3,300 units would rely on market demand, and the ability for infrastructure and the street network to handle the additional households.

Commercial Development

Between five and ten years of residential development, the URA 6D Concept Plan area and surrounding urbanizing areas should have enough households and traffic to support a 60,000 square foot neighborhood retail center. It may be large enough for a smaller-format grocery store surrounded by restaurants and shops and would likely be located at the point where the future extension of Tigard's River Terrace Boulevard intersects with a future east-west connector street, taking advantage of visibility and access from SW Roy Rogers and SW Beef Bend Roads. Leland Consulting Group (LCG) market analysis estimates the range of commercial space to be between 80,000 and 120,000 square feet at full build out.

An additional non-residential component, based on a "gateway to wine country" positioning could add another 40-60,000 square feet of campus-style employment or institutional uses. According to LCG, there may be enough demand for a 70-room lodge, including wedding or event space and a signature restaurant. Such a facility could leverage difficult-to-develop riverfront land with outdoor amenities such as educational vineyard, organic culinary garden, or other agricultural and wine-industry related amenities. LCG acknowledges that the "gateway to wine country" concept is compelling but speculative.

For infrastructure financing purposes, the land use program assumed for the funding plan is intentionally conservative regarding the ultimate amount of housing and commercial space; it assumes about 3,500 units as well as a 20% housing "underbuild" precaution, and 50,000 square feet of commercial space. The underbuild precaution has been built into calculations in case the amount of development—and infrastructure-financing fees generated—is less than anticipated. Infrastructure financing is detailed in "Infrastructure Funding."

THE VISION FOR MIX OF HOUSING

Range of Housing Types and Inclusive Development "Provide a mix of housing to accommodate a wide range of household types, incomes, and needs. Affordability is key; provide affordable housing that matches the identity of King City and includes single story living options. Housing should appeal to a full spectrum of people, taking into account diverse incomes, ages and needs." --Concept Plan Vision and Goals

Importance of mixed-income, mixed-use neighborhoods

King City's evolution from retirement village into a diverse community of nearly 5,000 proves the point that cities are socially stronger, more resilient and more equitable when people who represent a wide variety of household sizes and incomes make up a neighborhood.

It is the goal of this plan to articulate a vision for URA 6D in which a wide variety of housing types are intermixed together into the same neighborhood, even on the same block, providing housing choices to people of all ages and income levels. The goal specifically excludes monocultures of single

housing types segregated into enclaves or separate subdivisions. Besides benefiting this area, mixed-income neighborhoods in King City will address the Metro region's housing affordability issues.

In addition, there are national, regional and local trends that support mixed-income housing:

Shifting trends in homeownership and household sizes

The last three censuses have shown that the American household is changing, dramatically diverging from the "typical" household defined as two-parents with 2.5 children. Key trends have emerged: the aging of baby boomers, millennials growing up and forming households, shrinking household sizes, geographic redistribution of populations between the suburbs and cities, and growth of minority populations. The recession forced a shift away from homeownership, and younger generations entering the housing market are likely to rent longer. These trends, individually and combined, point to a demand for urban housing, in the form of compact infill housing, for rent and for sale, close to affordable transportation, including transit.

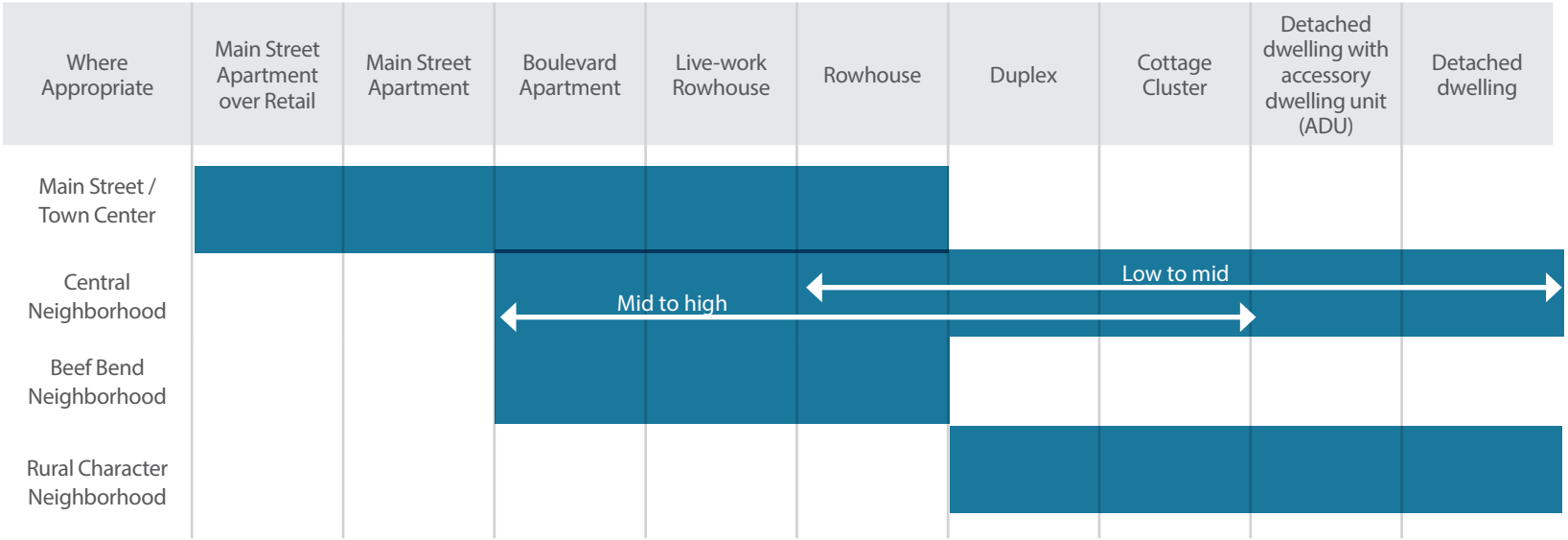
Compact housing built for small households is part of King City's legacy.

Much of King City's 1960's-era development consisted of compact housing built for smaller-than-average households. As the small-household population has grown (partly due to retiring baby boomers), these homes continue to hold their real estate market value.

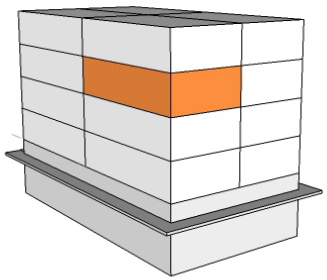
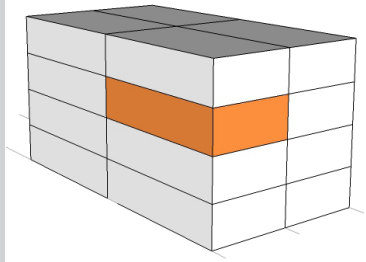
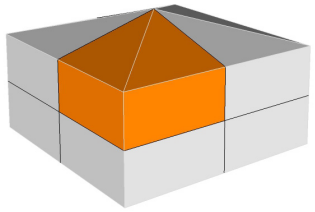
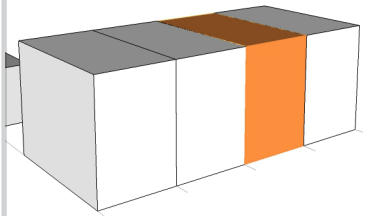
Supported by the market analysis

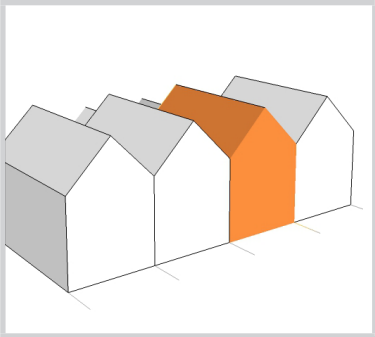
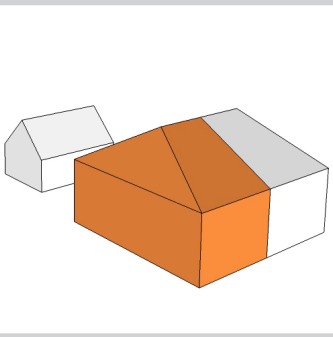
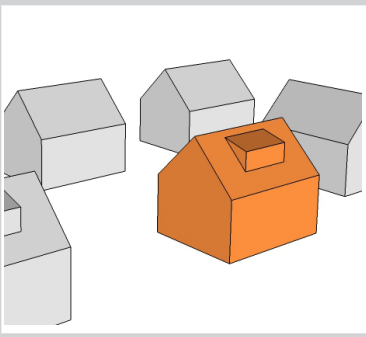
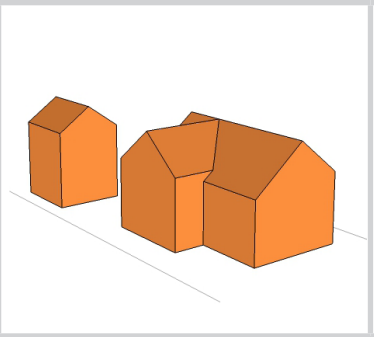
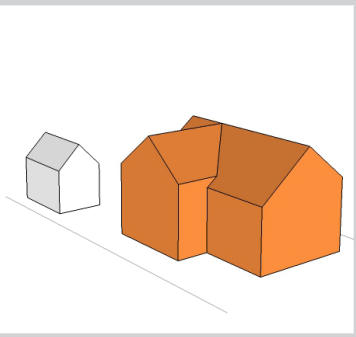
The demographic shift to wider range of housing types is supported by the Market Analysis prepared for the URA 6D Concept Plan by Leland Consulting Group.

Housing Mix by Neighborhood Type



HOUSING TYPE

				
	Main Street Apt. Over Retail	**Apartment**	**Boulevard Apartment**	**Live/Work Unit**
Net density (dwelling units per net acre)	*24-40*	*24-40*	*8-10*	*12-18*
Typical lot widths (in feet)	*varies*	*varies*	*varies*	*25-35*
Typical lot depths (in feet)				*90-110*
Typical lot area (in square feet)				*2,250-3,850*
Description	*Commercial uses on the ground floor with residential units above. Units are sold as condominiums or rented as apartments.*	*Multiple dwelling units in the form of stacked flats in a single building with one or more shared entrances. Units are sold as condominiums or rented as apartments.*	*Most commonly triplexes through sixplexes. Units can be stacked or side-by-side, like townhouses. These are often designed to look like a large house.*	*A rowhouse with space for an office on the ground floor.*
Variations				

				
Rowhouse	**Duplex**	**Cottage Cluster**	**Detached with ADU**	**Detached Dwelling**
12-18	*8-10*	*12-14*	*12-22*	*8-18*
25-35	*50-80*	*varies*	*25-50*	*25-50*
90-110	*90-110*	*90-110*	*90-110*	*90-110*
2,250-3,850	*36000-*	*varies*	*2,250-5,500*	*2,250-5,500*
Attached units, each on a separate lot, and each with its own entry from a public street. Usually owned.	*Two units on a shared lot. The umber of allowed units is determined by the zoning. Can be side-by-side, like town-houses, or stacked. Often designed to look like single dwellings, and to blend in with surrounding traditional neighborhood. Rented or owned.*	*Cottage clusters are detached units grouped around a common open space, each on its own lot, with the common areas under shared own-ership. Parking is in a shared surface lot. Cottages are smaller than 1,000 sq. ft. Cottage clusters are an affordable alternative to apartments and are designed to fit into single dwelling neighborhoods.*	*An ADU (Accessory Dwelling Unit) is a small living space located on the same lot as a single-family house. ADUs can create affordable rental opportunities without changing the character or quality of life of existing single dwelling neighborhoods. It is often rented, and sometimes occupied by a family member.*	*Detached house*
» *Rowhouses above a single level flat. The ground floor unit is designed to be accessible.* » *Rowhouses on top of a base (or "podium") of commercial uses. The podium usually accommodates parking.*			» *Attached ADU - Added to or within the existing structure* » *Detached ADU - Detached and physically separate from existing structure*	» *Detached dwelling, narrow lot Like rowhouses, but detached. Each on its own lot, these are usually owned.*

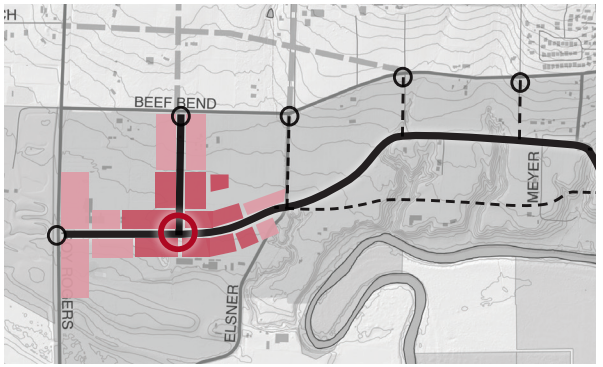
MAIN STREET/TOWN CENTER

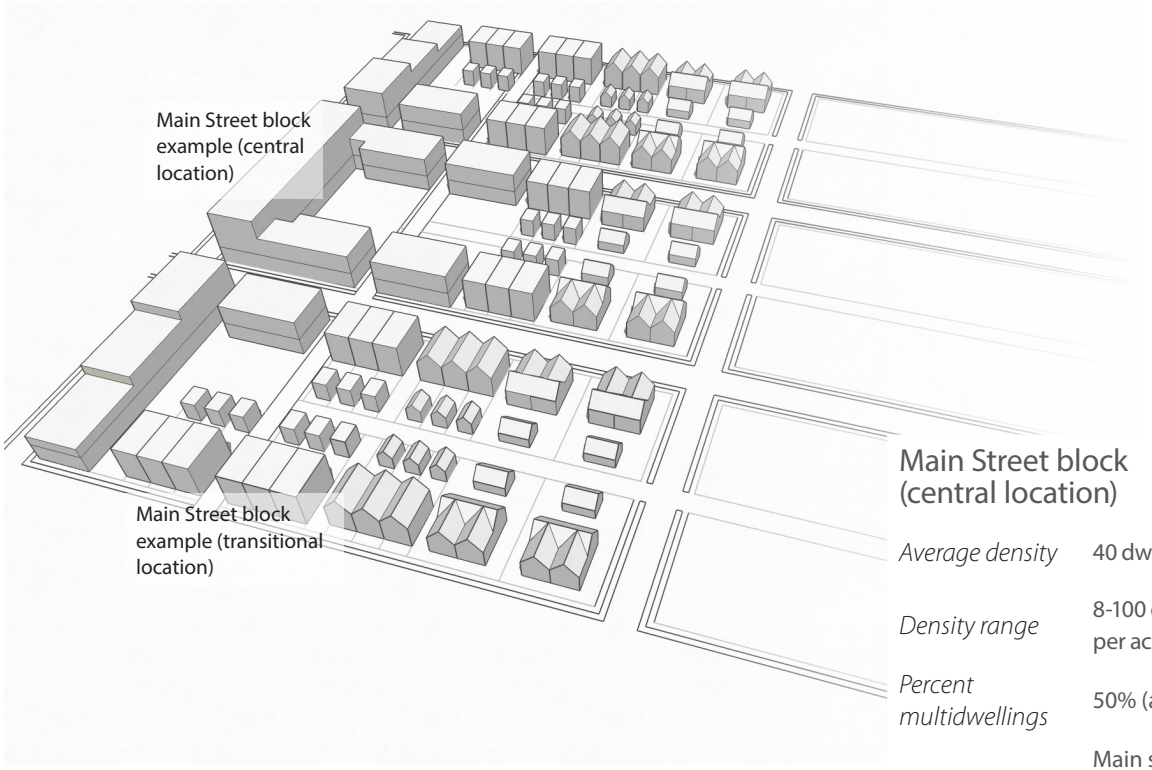
According to the Market Analysis by Leland Consulting Group, after about five years of residential development, the URA 6D Concept Plan area should have enough households in the vicinity to support a 60,000 square foot neighborhood retail center. This is planned for the western side of the URA, taking advantage of visibility and access from Roy Rogers and Beef Bend. It would be centered at the point where the future extension of Tigard's River Terrace Boulevard intersects with a future east-west connector street.

The vision for street and paths in the area draw from the Mobility Framework and include:

- Main Street
- Green Boulevard
- Shared Street

Within the Main Street / Town Center area, the Green Boulevard may not include the center planted median. Streets would be designed to accommodate transit and transit stops would be integrated into public spaces.





Main Street block (central location)

Average density	40 dwelling units per acre
Density range	8-100 dwelling units per acre
Percent multidwellings	50% (apartments)
Housing types	Main street apartment over retail, apartments (standalone), live-work, rowhouse, duplex

Main Street block (transitional location)

Average density	25 dwelling units per acre
Density range	8-100 dwelling units per acre
Percent multidwellings	50% (apartments)
Housing types	Main street apartment over retail, apartments (standalone), live-work, rowhouse, duplex

The vision for parks and open space in the area draw from other sections of the Land Use Framework and include:

- An Urban Park
- The following park types, with an urban activities focus:
  - Pocket Park
  - Linear Park

South of the Main Street / Town Center would be a region-serving community park, possibly co-located with a school and /or civic center.

Land Use Program

The 60,000 square-foot neighborhood retail center would be large enough for a small-format grocery store surrounded by restaurants and shops. According to the market analysis, as additional neighborhoods are built out in King City, Tigard and surrounding areas, an additional 20-60,000 square feet of commercial space is possible. This could take the form of additional retail or hospitality.

The market analysis indicated that the hospitality component could take the form of a 70-room lodge, including wedding or event space and a signature restaurant, but additional analysis would be necessary. King City could market the location as a "gateway to the wine country," and build on the availability of nearby riverfront land which would be difficult to develop, but could be used for wine related tourism amenities (such as educational vineyard or organic culinary garden).

The southern portion of the Main Street area is envisioned to accommodate campus-style mixed employment and / or institutional uses with the following uses and characteristics:

- Educational facilities, community education, workforce training
- Primary school, possibly co-located with park
- Office and business incubator space
- Health and wellness center; clustered and co-located medical offices
- Functionally coordinated building programming
- Aesthetically pleasing and cohesive site planning and design
- Within walking distance of main street restaurants and businesses and future transit service
- Within walking distance of residential neighborhoods

Building form

Main Street buildings could take the following forms:

- 4-5-story mixed use buildings, with retail on the ground floor and residential units above
- Further from the main street center, standalone residential buildings, 4-5 stories tall
- Standalone or above retail, residential densities would typically be between 24-40 dwelling units per acre
- Standalone, single story retail buildings (such as a small-format grocery store)

The maximum number of dwelling units and retail square footage would mostly be limited by the amount of parking that could be provided. Since structured parking is very expensive, initial phases would likely rely on surface parking.

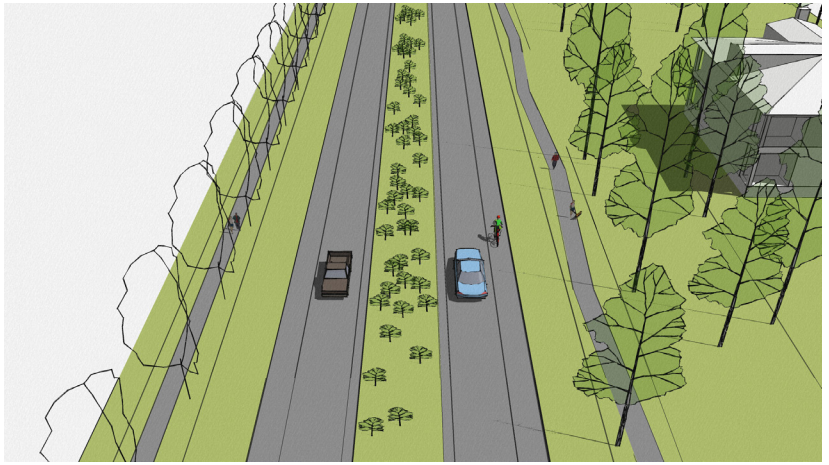
Surface parking would be attractive and easy to access from the center of activity, but located where it does not dominate the main street character. Streets should accommodate on-street parking, diagonal or parallel, depending on the main street character that is desired.

All space devoted to parking—surface, structure, on-street—should be designed to be adapted to other uses in the future. For example, a first phase surface parking lot could become the site of a future-phase mixed-use building.

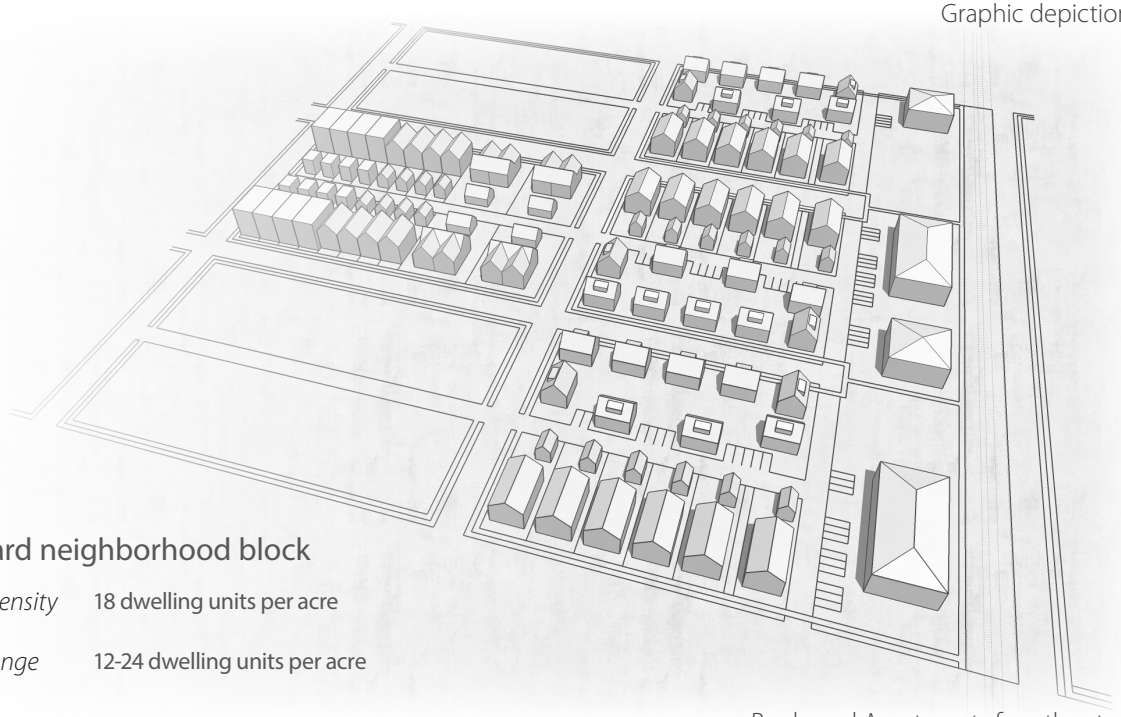
Example from Orenco Station of 4-5-story mixed use building with retail on the ground floor and residential units above.

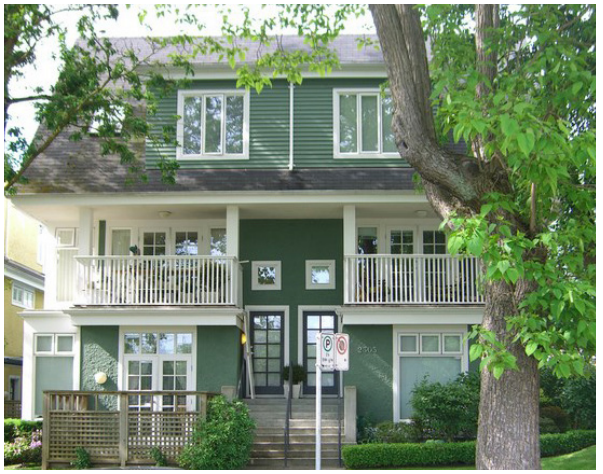
Housing types for Beef Bend Neighborhood

Beef Bend is a major street through the area. As described more fully in the Mobility Framework, King City URA 6D goal for SW Beef Bend Road is to tame the traffic, while not impinging on auto mobility through the region. Specifically, the vision for Beef Bend is slower traffic, a park-like setting, a planted median, inviting and safe opportunities for pedestrians and bicyclist to move along and across. The URA 6D vision for development along the new Beef Bend is multidwelling residential where homes face the street and have alley access, and are separated from traffic by a wide greenspace which may provide for preservation of existing trees in the area.



Graphic depiction of Beef Bend with a multi-use path separated from traffic.





Boulevard neighborhood block

Average density	18 dwelling units per acre
Density range	12-24 dwelling units per acre
Percent multidwellings	30% (apartments)
Housing types	Boulevard apartment, cottage cluster, detached narrow lot single dwelling

Boulevard Apartments face the street and have alley access. Deep front and side setbacks, combined with a linear park and multi-use path, provide for the preservation of trees in the area and treatment of stormwater. Some of the green space may be maintained by Clean Water Services, since the agency maintains stormwater facilities that are designed to its standards. Additional green space may be provided by right of way reserved for a five-lane Beef Bend Road. See page 64 for additional description of Beef Bend Road.

Universal block configurations

An intermix of housing types is made possible with blocks that contain alleys and are set up to accommodate a range of lot widths.

Flexible lot widths

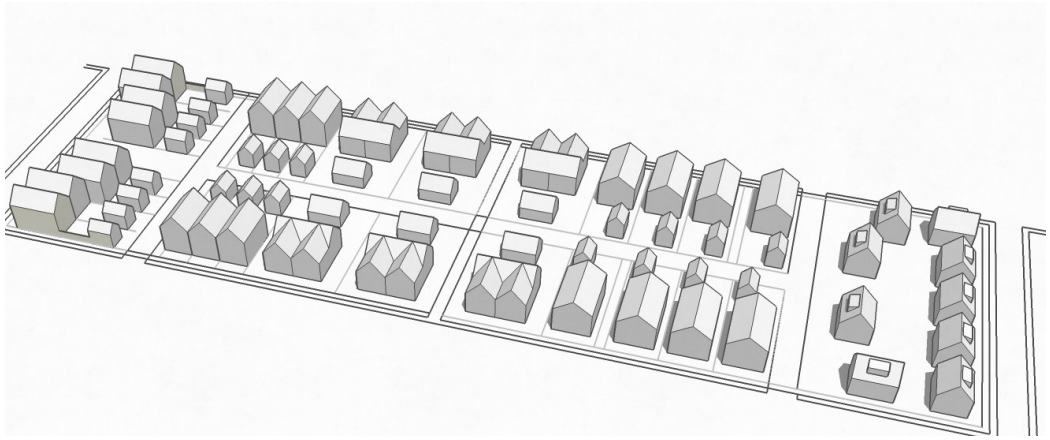
Ideal blocks are typically 200 to 220 feet deep and 200 to 350 feet wide. Lots are increments of 25 to 30 feet, permitting the intermixing of narrow lot dwellings alongside more convention suburban residential lots (which are typically 30 to 60 feet). The intermixing of lot widths ensures that affordable compact housing types can sit side-by-side along with more conventional larger-lot detached homes. Exceptions are cottage clusters and smaller-scale apartments (garden apartments, boulevard apartments), which need aggregated lots. Such apartments buildings need to be sized and designed to fit into the neighborhood context.

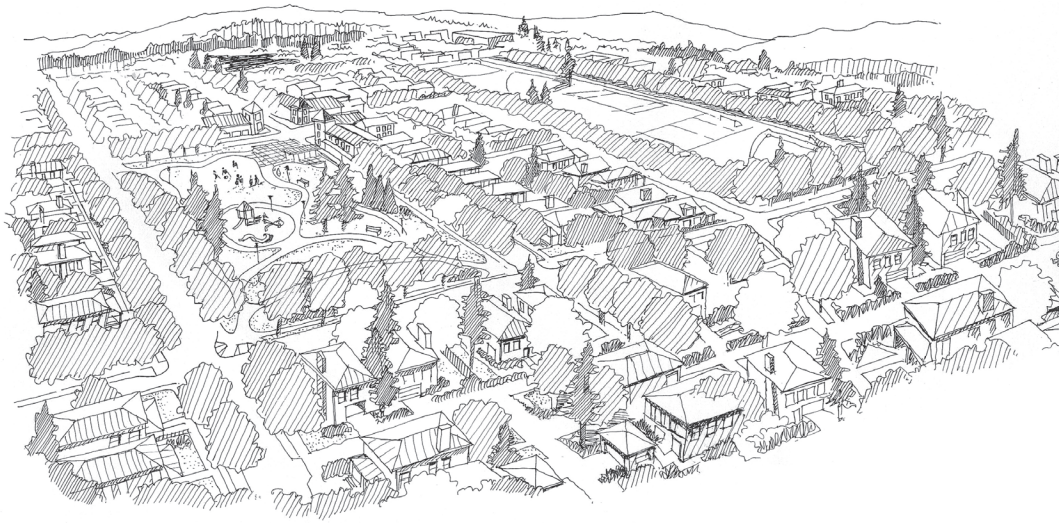
High to mid density neighborhood block

Average density	18 dwelling units per acre
Density range	8-20 dwelling units per acre
Percent multidwellings	25% (apartments)
Housing types	Live-work, rowhouse, duplex, cottage cluster, detached single dwelling with accessory dwelling unit (ADU)

Alleys

Alleys are critical in allowing narrow lots alongside more conventional suburban lot widths, and in limiting the number of driveways access lots from the street edge. Certain features of the street design—such as a continuous plant strip separating the sidewalk from the street, and large-canopied street trees—rely on limited driveways. Alleys are typically 20 to 30 feet wide and can be public right of way or private easement. The design, paving, maintenance and lighting of alleys is important to ensure they function properly and are safe and attractive. Visually narrowing the perceived width of alleys (through landscaping, paving, and placement of garages or ADUs) ensures that they are not used for traffic. If well designed they can be part of a total pedestrian pathway system through the neighborhood.





Mid density neighborhood block

Average density	15 dwelling units per acre
Density Range	8-18 dwelling units per acre
Percent multidwellings	0% (apartments)
Housing types	Rowhouse, duplex, cottage cluster, detached narrow lot single dwelling

TRANSITIONS TO LOWER DENSITY

Development phasing of Rural Character Neighborhood

Most first phase development will take place on the west side, closer to Roy Rogers and Beef Bend intersection, or on lots at the north, along Beef Bend Road. However, it is possible that individual property owners near or even in Rivermeade neighborhood may take advantage of the ability to redevelop their properties, starting after 2020 (the earliest opportunity, if URA 6D is brought into the UGB).

Retaining Rural Character Neighborhood

Retaining a rural character, particularly on the east side of the URA 6D, was a high priority for some residents in the area. The Rural Character Street (see Street Types) is one important key to maintaining the character of these areas. Also critical is the size, scale and siting of new development that takes place in or near the area. The following principles would guide zoning code requirements for future development:

Appropriate housing types are:

- Duplexes
- Cottage Clusters
- Detached dwellings with or without accessory dwelling units
- Mid-sized lot detached dwellings

Transitions

- Avoid abrupt changes in scale and density between residential and non-residential areas and between residential areas of different densities.

- Consider placing zoning district boundaries at the back of lots, instead of along the centerline of streets. This will result in buildings that are similar in scale and appearance on the street.
- Ensure that a gradual transition of scale and density (along with architectural design for privacy) ensures compatibility at the back of the lot.

Scale of new development

- Maintain the scale and character of existing neighborhoods. Avoid land uses that are overwhelming and unacceptable due to their size and scale.
- Require robust setbacks and visual separation that ensure compatibility with adjacent lower-intensity uses. Use natural features, such as woodlands and drainage ways, to provide transitions between new development and low density residential neighborhoods.
- Use a combination of yards, setbacks, stepbacks (when upper floors "step back" from the edge of the floor below), and facade design, to ensure that the transition between different uses and building types is gradual. If this is done well, different uses and building types

can be compatible neighbors without adopting identical building forms.

Building design and orientation

- Consider regulations that require new buildings to have patterns of entries, windows, and porches that are consistent with neighboring buildings.
- Ensure that privacy is maintained and created both for the residents of existing uses as well as the occupants of new development. Windows and balconies should be carefully placed to avoid or minimize impacting the privacy of existing buildings. Landscaping can be designed to add additional privacy over both the short and long-term.

Buffers and landscaping

- Consider requiring buffers between new and existing development. Effective buffers are a combination of horizontal and vertical separation:
  - Horizontal buffers can be achieved through extra wide setbacks, streets and alleys, and / or open space, and could accommodate community gardens or preserved trees and tree groves.
  - Vertical separation can be achieved through architectural treatment, such as fences, or vertical planting, such as hedges or hedgerows.

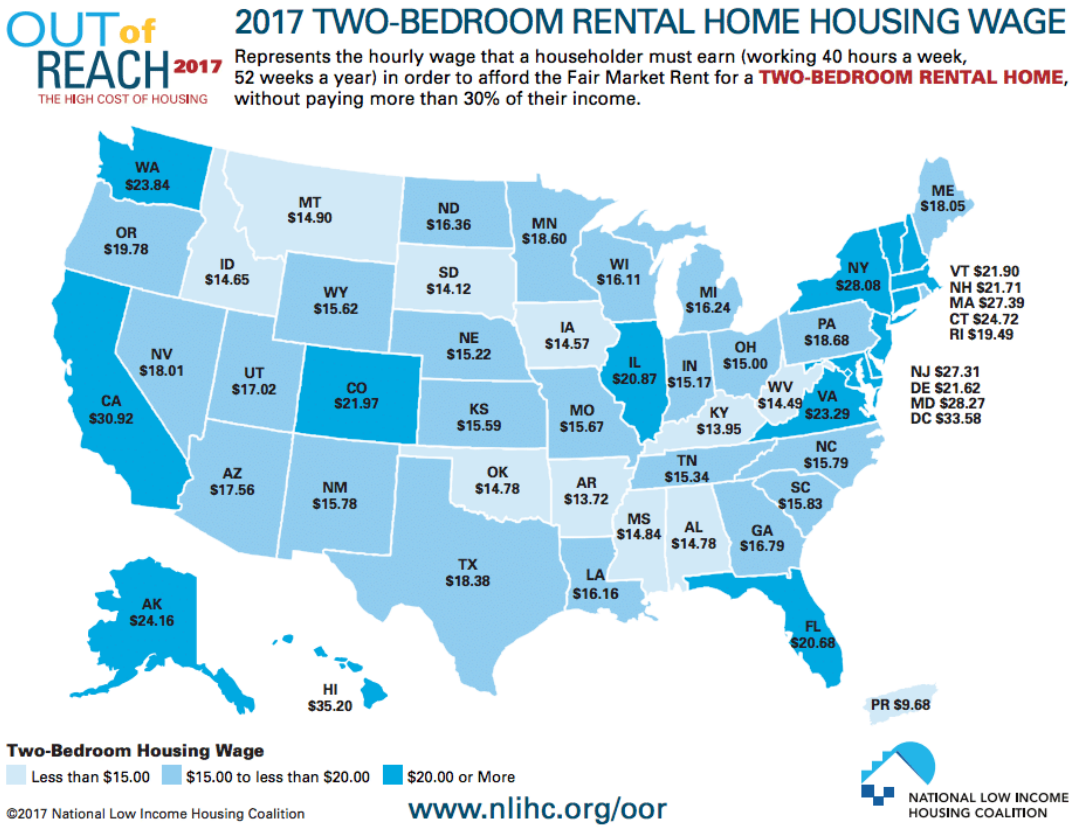
HOUSING AFFORDABILITY

Measuring housing affordability can seem abstract, however, using an hourly wage puts affordability in practical terms. The National Low Income Housing Coalition maps the minimum hourly wage required to afford a 2-bedroom rental based on federal Fair Market Rent (FMR) estimates. The federal government defines "affordable" as a housing cost (utilities included) that is no more than 30% of a person's annual income. In 2017, the Fair Market Rent for a 2-bedroom apartment in Washington County was $1,242. This means that a household must earn at least $23.88 per hour to afford a two-bedroom unit in Washington County (King City Housing Needs Analysis Draft Report, January 2018). That's more than double Portland Metro's minimum wage of $11.25/hour.

Common misconceptions persist about people earning at or near the minimum wage. They are often categorized as part-time workers and teenagers when in reality, 37% of minimum wage workers are over 40 years old. The majority are women and almost 60% are working full time (American Federation of Labor and Congress of Industrial Organizations).

King City Housing Needs Analysis Draft Report

- 2017 Fair Market Rent for a 2-bedroom apartment in Washington County was $1,242
- A household must earn at least $23.88 per hour to afford a two-bedroom unit in Washington County
- Approximately 57% of households in King City have an income below the affordable housing wage for Washington County



How many hourly wages workers make enough to afford modest rents? (NLIHC)

Two-bedroom housing wage, National Low Income Housing Coalition.

Affordability strategies for URA 6D

Strategies to support development of affordable housing in Oregon generally focus on two broad issues: regulatory strategies that broaden the types of housing allowed and land use efficiency; and strategies that encourage development of housing affordable to low- and middle-income households.

Affordable housing can be categorized as: (1) housing for a low-income household, where the household qualifies for government subsidies to afford housing; (2) housing for a moderate-income household, where the household may struggle to afford market-rate rents or homeownership opportunities for newly built housing.

King City has historically encouraged a wide range of housing types and densities, which have helped reduce housing cost. The Metro 2016 Compliance Report concluded that King City was in compliance with Metro Functional Plan and Title 7 (Housing Choice) requirements. Between 2000 and 2015, the percentage of multi-family units of all housing declined from 35% to 16%. Although in many instances city zoning allowed higher densities and multi-family units, developers opted to build lower density single family detached and attached homes in compliance with the city's minimum density requirement of 80% of the maximum. Between August 2016 and July 2017, Metro RLIS data showed median home prices in King City of $352,000 compared to over $400,000 for surrounding cities and Washington County.

The following are policies that King City may consider to further increase opportunities for development of housing affordable to low-income and moderate-income households.

Regulatory Strategies

King City has current regulatory practices, and plans to build on them. They include:

- Allow a wider range of housing types in single and multidwelling categories. Allowing these housing types can increase overall density of residential development and may encourage a higher percentage of multidwelling housing types.
- Allow small residential lots, generally less than 5,000 sq. ft. This policy is intended to increase density and lower housing costs.
- Allow clustered residential development to increase density on portions of a site, while preserving other areas of the site. Clustering is a tool most commonly used to preserve natural areas or avoid natural hazards during development.
- Reduced parking requirements. Parking is one of the more expensive parts of project development. Consistent with Metro requirements, King City has a minimum parking requirement of one space per dwelling unit. Further reductions in parking requirements will be considered by King City, specifically for affordable housing projects. Parking reductions may not be successfully applied without access to viable transportation options to automobile use, including transit service, walking, and bicycling.

Many of these regulatory approaches are anticipated in the proposed Housing Types and Neighborhood Block designs detailed elsewhere in this section.

Affordable Housing Strategies

Strategies that encourage development of government-subsidized housing and which may be used for development of moderate-income market-rate housing with public support include:

- Financing building permit and planning fees or SDCs. These programs reduce the impact of development fees and systems development charges (SDCs) on the development cost of the project by allowing the developer to avoid the upfront cost and finance the fees over time. A financing program can be used as an incentive to induce qualifying types of development or building features (in this case, affordable housing). The city still receives fees and SDCs, but at a later date.
- Tax exemption program. There are multiple tax exemption programs that cities can implement. The Multiple-Unit Limited Tax Exemption Program allows a jurisdiction can incent diverse housing options in urban centers lacking in housing choices or workforce housing units. The Vertical Housing Tax Credit subsidizes "mixed-use" projects to encourage dense development or redevelopment by providing a partial property tax exemption on increased property value for qualified developments. The Washington County Tax Exemption is for non-profit owned affordable housing, allowing a property tax exemption for low-income housing.
- Land Banking. Land banks support affordable housing development by reducing or eliminating land cost from development. Many are administered by a non-profit or non-governmental entity with a mission of managing a portfolio of properties to support affordable housing development over many years or decades. Cities can partner with non-profits or sometimes manage their own land banks. Cities may also donate, sell, or lease publicly-owned land for the development of affordable housing even without a formal 'land bank' organization.
- General Fund Grants or Loans. A city can use general fund or tax increment dollars to directly invest in a specific affordable housing project. These grants or loans can serve as gap funding to improve development feasibility. There are several options for using general fund grants or loans, including the potential for bonds to generate upfront revenue that is repaid over time, as recently approved in the City of Portland.
- Inclusionary zoning (IZ). IZ requires or incents developers to set aside a certain share of new housing at a price affordable to people of low or middle income. In 2016, the Oregon Legislature passed Senate Bill 1533 which allows for a jurisdiction to implement an inclusionary zoning policy if it meets certain requirements. These requirements relate to the income at which the units are affordable (80% MFI or 60% MFI), the percent of the project set aside as affordable, the size of the projects and the requirement for both an in-lieu fee option and incentive package.
- Construction Excise Tax (CET). In 2016 the Oregon Legislature passed Senate Bill 1533

which, in addition to allowing inclusionary zoning, permits cities to adopt a CET of 1% of the permit value on residential construction and at an uncapped rate on commercial and industrial construction, for use on affordable housing projects.

» Urban Renewal / Tax Increment Finance (TIF). Tax increment finance revenues are generated by the increase in total assessed value in an urban renewal district from the time the district is first established. As property values increase in the district, the increase in total property taxes is used to pay off the bonds. When the bonds are paid off, the entire valuation is returned to the general property tax rolls. Urban renewal funds can be invested in the form of low interest loans and/or grants for a variety of capital investments, including affordable housing development.

UNIVERSAL DESIGN

A core tenet of the vision for URA 6D is universal design at the community scale. Environments that meet the principles of universal design are barrier-free, ergonomic, and accessible by all people.

When applied to the physical environment at the community scale, universal design takes mobility into account in every layout concept and every detail. It is universal design applied to streets and trails, homes, businesses and civic facilities. It's an ethic as well as an aesthetic: When a community or a facility is designed to function for universal access, it communicates a welcoming and friendly spirit. An intentionally designed universal access community works for and welcomes people of all ages:

> "…a 'livable community' is place that allows individuals to age-in-place. A comprehensive definition of a livable community is one that is 'safe and secure, has affordable and appropriate housing and transportation options, and offers supportive community features and services. Once in place, those resources enhance personal independence; allow residents to age in place; and foster residents' engagement in the community's civic, economic and social life."
>
> --2016 AARP Age-Friendly Community Survey of Washington County, OR

Universal design can apply to construction of new homes, in the form of single level or stacked designs, such as rowhouses above single-level flats, as well as to the interior design of homes to incorporate features such as no-step entries, wider hallways, and bathroom fixtures that accommodate people with limited mobility.

Universal design can apply to the design of public facilities, in the form of features such as a building entrance that is accessible from a generous ramp and integrated into warm and inviting architecture, not stuck on as an afterthought.

As a community ethic, universal design can guide and energize social interaction, taking the form of service programs that support senior living, such as the "village" movement. These are coordinated, comprehensive health and housing services provided by neighbors:

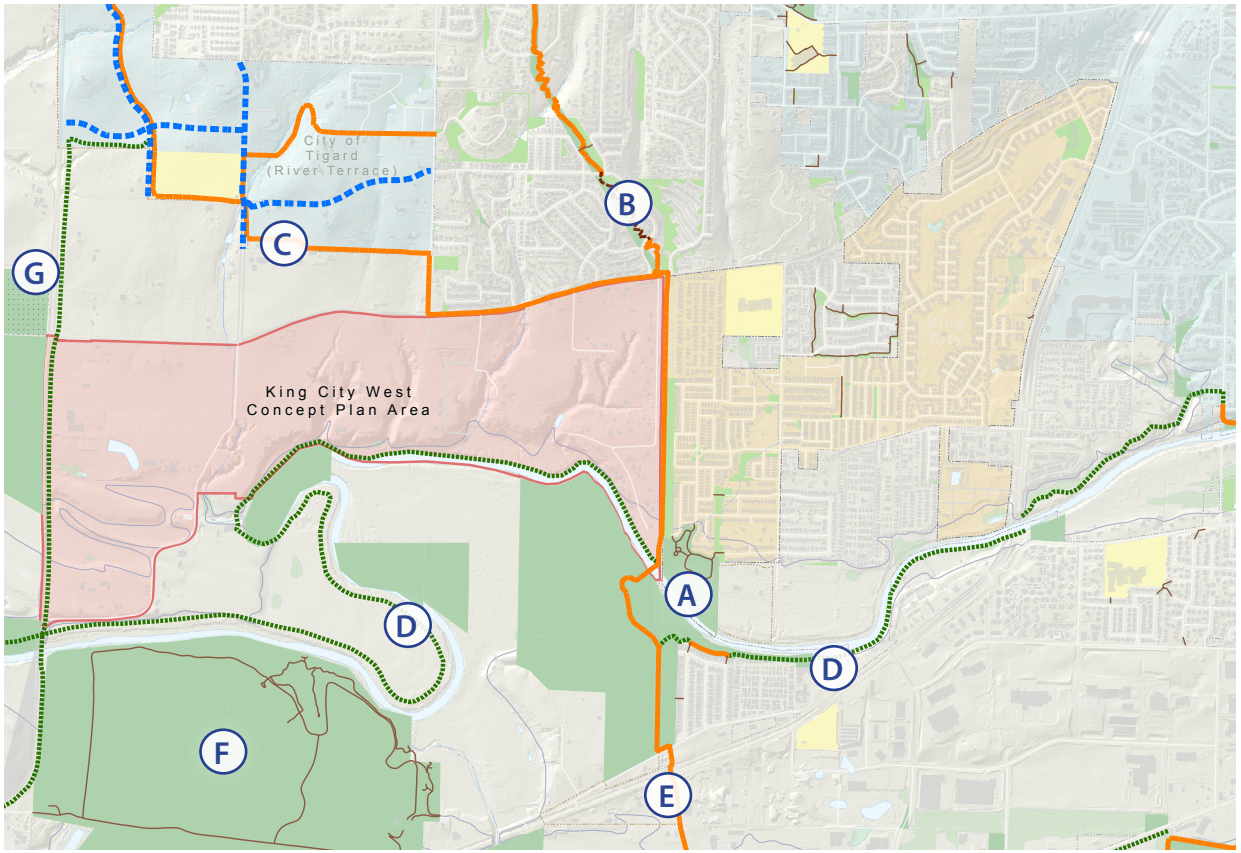
> An Aging-in-Place Village is "a group of like-minded people in a geographic area who come together to figure out and develop the resources they will need to age comfortably in their own homes. Like Naturally Occurring Retirement Communities (NORCs), villages embrace the strategy of bringing services to people rather than moving people to services."
>
> --http://villagesnw.org/whats-an-aging-in-place-village/

PARKS AND OPEN SPACES

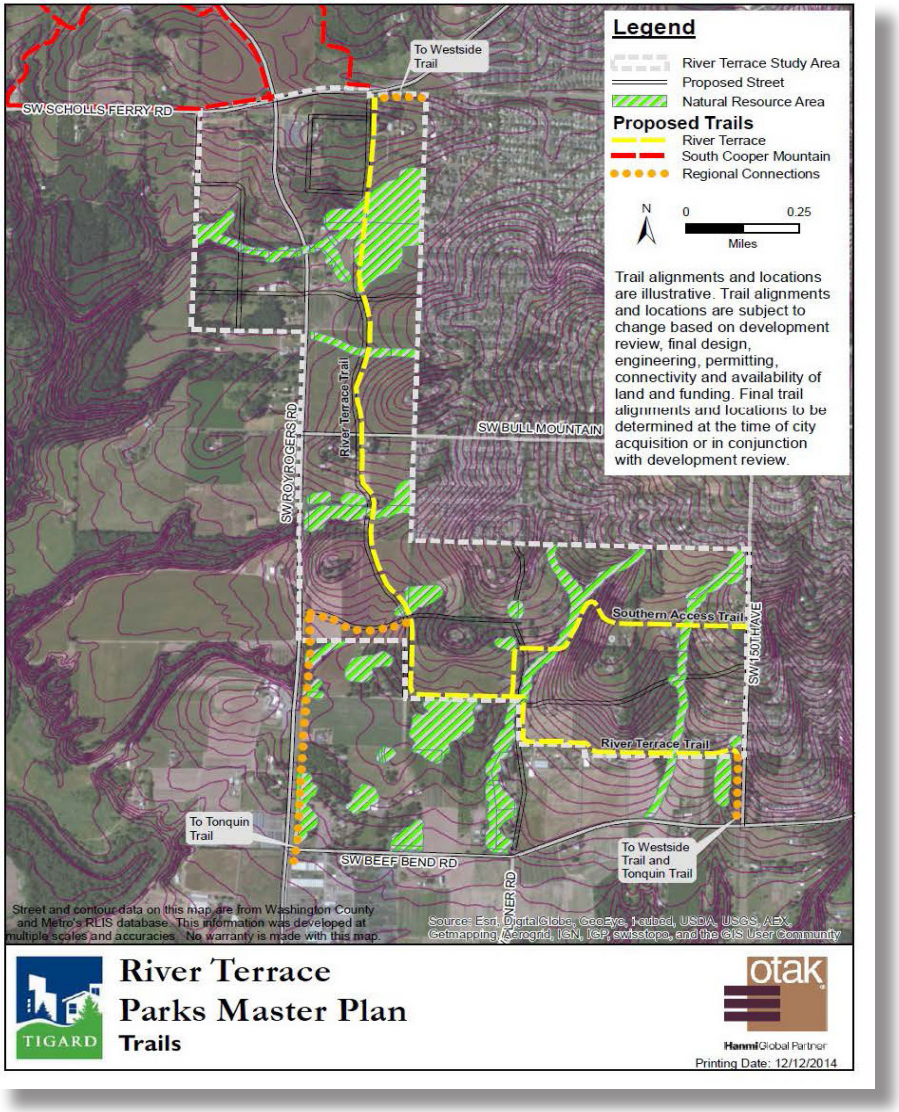
Existing and Planned Parks and Trails

URA 6D is an important link in the larger regional network of connected trails and green spaces. There are a number of existing and planned trails and parks within close proximity to the study area, including:

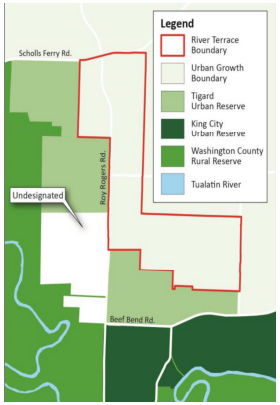
- (A) *King City Community Park*
- (B) *Westside Trail*
- (C) *River Terrace Trail*
- (D) *Tualatin River Greenway*
- (E) *Tonquin Trail*
- (F) *Tualatin National Wildlife Refuge*
- (G) *Lasich Park (planned Tigard park)*



Existing and proposed parks, open spaces and trails



Conceptual parks and trails maps in River Terrace, River Terrace Parks Master Plan Addendum.



River Terrace area (red outline) to the north of URA 6D (shown in dark green).

River Terrace Parks Network

The River Terrace Parks Master Plan Addendum identifies conceptual park locations for community parks, neighborhood parks and trails. While final park locations are determined at the time of city acquisition or private development, the addendum shows a robust network of green spaces that the URA 6D should connect to. River Terrace Trail is planned to link into the Westside Trail, which will run north and south immediately east of the URA. In addition, there are a number of community parks and open spaces directly north of the URA that provide an opportunity to connect to the larger network of diverse parks, wild open spaces and recreational trails.

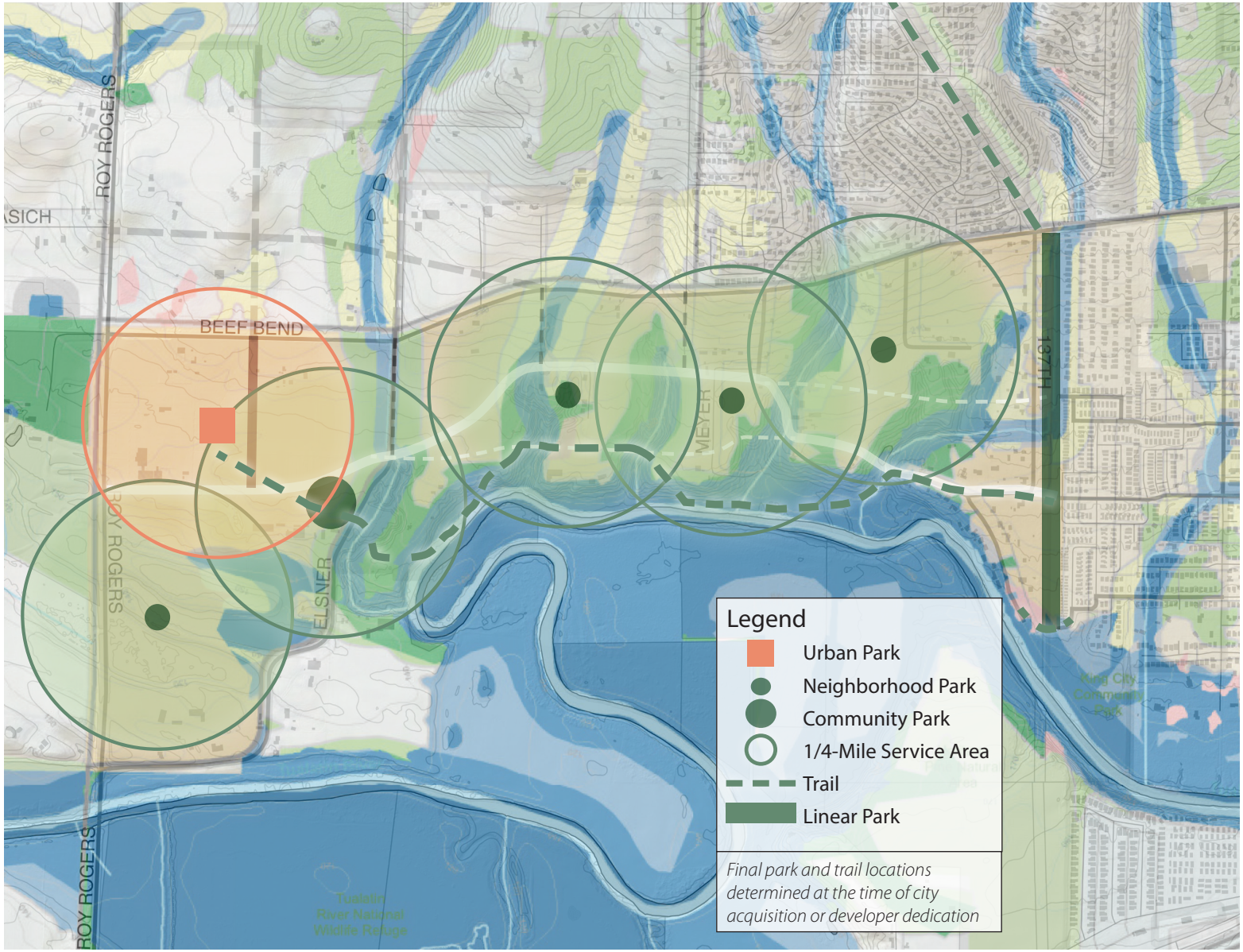
Parks in URA 6D

The conceptual map shows a general plan for parks in the URA. It includes smaller neighborhood parks between the natural ravines in the central and eastern portions of the URA. These neighborhood parks (3 to 5) were incorporated in the Funding Strategy Memo and may be any number of park types identified on the following page. A larger community park is envisioned in close proximity to a school and more dense development on the west. An urban park in the mixed use/town center area is desired around the denser development and may take the form of a public square or plaza, close to the corner of River Terrace Boulevard extension and green boulevard extension. In addition to these parks, a trail along the river is desired. This would be a continuation of the Tualatin River Greenway Trail.

Location, size and other requirements by park type would be developed during the master planning phase of the project. The tables (from Tigard River Terrace Parks Master Plan Addendum) are examples of what would be detailed at a later point including a city standard for size and a recommendation of park need.

Park Types for URA 6D

Park Type	Possible Standard (Acres or miles / person)	Examples (Existing examples in King City or URA 6D and new proposed locations)
Open Space	4.25 acres / 1,000	Areas under natural resource protection
Trail	.26 miles / 1,000	Proposed: Tualatin Greenway and Westside trail
Linear	1.25 acres / 1,000	Proposed: BPA Right of Way (utility easement between SW King Lear Way / SW Montgomery Way and SW 137th Avenue)
Community Agriculture	1.25 acres / 1,000	Proposed: Historic agriculture site(s)
Community	3 acres / 1,000	Existing: King City Community Park Proposed: Within Town Center / Main Street area
Neighborhood	1.5 acres / 1,000	Proposed: Within Beef Bend, General and Rural Neighborhoods
Private	No standard	Existing: Corner park at SW 131st Avenue and SE MacBeth Drive (King City), Rivermeade riverfront park (URA 6D) Proposed: New parks associated with homeowners associations
Pocket	No standard	Proposed: Small parks within each neighborhood
Urban	No standard	Proposed: Plazas and shared street space within the Town Center / Main Street area



Conceptual park and trails map for the URA 6D

Park Types for URA 6D

A number of different park types are envisioned for the King City URA 6D area, including the following:

- *Open Space*
- *Trails*
- *Linear Park*
- *Community Agriculture Park*
- *Community Park*
- *Neighborhood Park*
- *Private Park*
- *Pocket Park*
- *Urban Parks*

Open Space

Open spaces, generally along stream corridors and wetlands, protected from development.

Trails

A Trail system designed to connect to nearby regional trails, such as the Westside Trail and the River Terrace trail system to the north, and the Tonquin Trail to the south.

Linear Park

A greenway that links together points-of-interest within a community or provides green buffers between neighborhoods. These parks are nature oriented, and recreation is typically related to trail use.

Community Agriculture Park

Former farming site where property and buildings are maintained as an agricultural example with the intent to interpret and educate visitors in local food and plant production. Activities might include community gardens, historical markers, educational programming, farm tours, and trails.

Community Parks

Community parks are larger and support organized activities. They often have sport fields or other special facilities as their central focus. These parks can accommodate larger numbers of people and provide restrooms and parking.

Neighborhood Park

Generally small in size, neighborhood parks are a combination of playground and park designed primarily for spontaneous, non-organized recreation activities.

Private Park

These privately owned and maintained sites include parks owned by subdivision homeowners associations (HOAs), park amenities provided on corporate campuses, private golf courses, and privately owned sports field complexes.

Pocket Park

A small park, too small to accommodate active play, but large enough for a play structure, looped walking trail or sheltered picnic table, or a public sculpture or fountain. A pocket park provides a minimal amenity for an apartment complex or area of opportunity in a development.

Urban Park

Urban parks are located in busy, higher density, commercial areas or mixed-use centers. Examples of urban parks include public squares, promenades, and urban plazas.

Mobility Framework

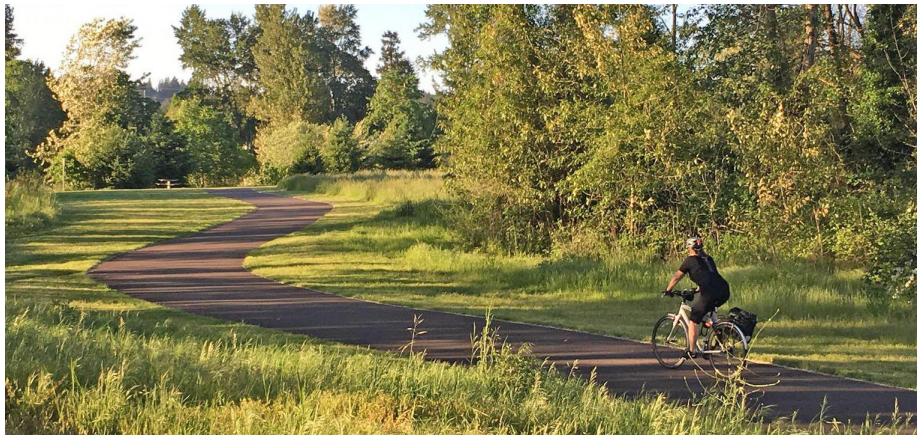
Mobility

Base Conditions Key Findings

- A network of internal local and collector streets will be necessary to balance traffic volumes and create better accessibility for all modes of travel.
- Walking and bicycling should be encouraged for local trips to school, shopping, recreation, etc.
- Only arterial or collector streets may connect to SW Roy Rogers and SW Beef Bend roads per Washington County policy.
- Design the mixed-use main street/town center and residential neighborhoods to be conducive for walking, bicycling, and transit.
- Design options for Roy Rogers, Beef Bend and other major streets should be identified. Ideally, they should be designed as urban boulevards rather than rural highways.
- A range of new street and trail designs, which maximize adaptation to the local conditions, should be considered.

Framework Design Philosophy

- Make connections with existing and planned streets and paths wherever possible.
- Maintain a long-term principle of connectivity, particularly for east-west street connections, while accommodating the two development phases: more immediate development on the west within first ten years and slow incremental development over a longer period on the east.
- Think about street and path types that may convert over time, for example, from a path to a street.



Connected Transportation Network: "Connected transportation network: Create an internal system of streets and paths that offer internal neighborhood mobility, so that Beef Bend Road is not necessary for every trip. Provide convenient connections to transit. Provide streets that seamlessly connect to trails and vice versa. Connect to existing and planned trails in the region."

--Concept Plan Vision and Goals

INTRODUCTION

The study area has historically been a rural area, governed by Washington County, therefore the major roads adjacent to and serving the URA are owned and operated by the County and include both arterials (SW Roy Rogers and SW Beef Bend Roads), and collectors (SW Elsner Road, SW Fischer Road and SW 131st Avenue).

Vision

In keeping with the Vision and Goals for the project, the Concept Plan promotes a connected transportation system of new internal streets and paths to provide travel options to and through the district, and take traffic pressure off the County arterials. Specifically the vision for the arterial streets that bound the URA (SW Roy Rogers and SW Beef Bend Roads) is that they evolve to become urban in nature where they abut the concept plan development area. SW Beef Bend and SW Roy Rogers would ultimately be transformed into urban boulevards with significant capacity for traffic but with additional improvements to provide a pleasant and safe walking and bicycling environment. These are characteristics which the current rural highway design lacks.

The transformation of these two streets includes attractive development which enfronts Beef Bend and Roy Rogers. Rather than facing the street with the backyards and tall fences which characterize many suburban arterial edges, the Concept Plan envisions development, set behind an expanse of green space, and facing the street. Tigard's River Terrace Boulevard provides inspiration for the King City design treatment.

In addition to creating multi-modal streets, the land use concept of interconnected neighborhoods and a mixed-use main street/town center will promote local walking and bicycling trips. In its Southwest Service Enhancement Plan, TriMet acknowledges future growth in this general area, including River Terrace and South Cooper Mountain. Although future bus routes have not been identified, the land use and urban design concept for URA 6D would establish a walkable and transit-friendly environment to support future transit service along major streets such as SW Beef Bend Road, SW Roy Rogers Road, and the southerly extension of SW River Terrace Boulevard.

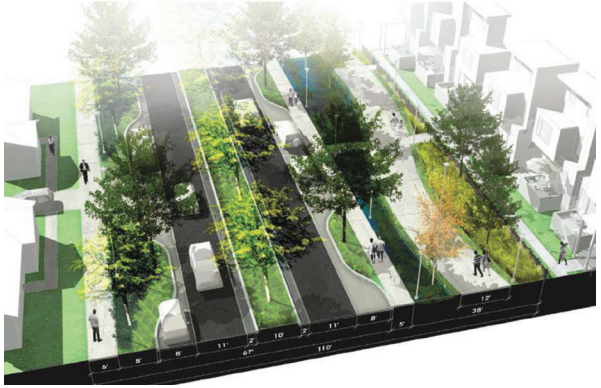
ALIGNING WITH THE VISION

- *Complete network of streets and path types*
- *Connected transportation network*
- *Support all modes of transportation*
- *Create a complementary walkable urban environment to support the provision of viable transit service.*

THE BIG STREETS

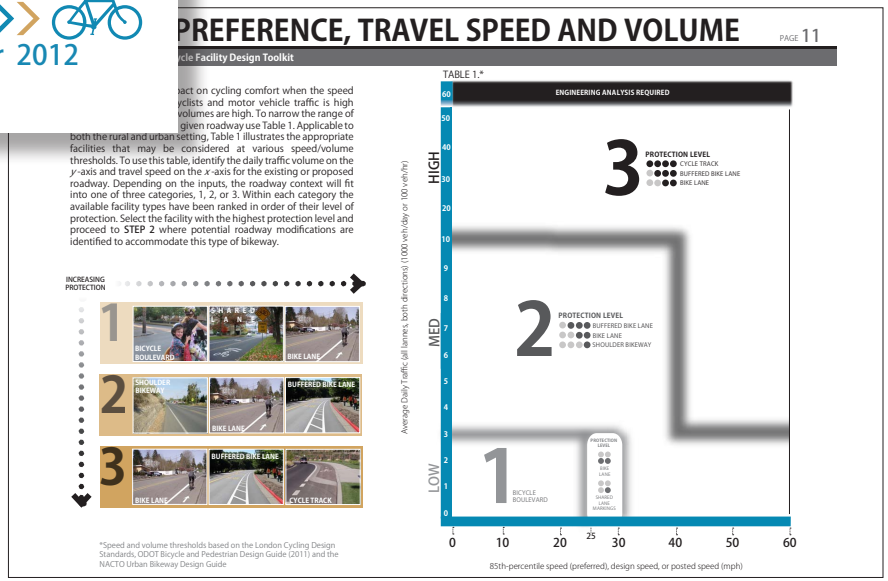
The Concept Plan proposal for SW Beef Bend Road and SW Roy Rogers Road includes several features:

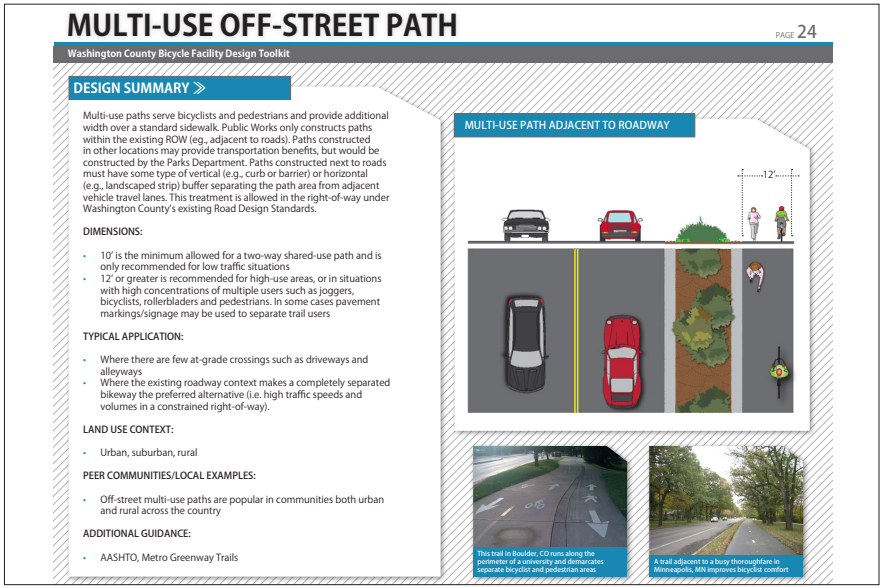
- Because Beef Bend travels east west along the foot of the Bull Mountain, travel lanes could be splayed to minimize the height and cost of retaining structures.
- Wide park-like green space would ease the grade change toward the developable area and provide for preservation of existing trees in the area.
- The planted central median would collect and clean stormwater before it flows toward the Tualatin River.
- A multi-use off-street path would provide a safe and attractive route for bicyclists and pedestrians.
- The proposed Beef Bend design is for three lanes, but additional right of way would be dedicated to accommodate a five-lane facility if analysis shows it is necessary.



River Terrace Boulevard Design Concept

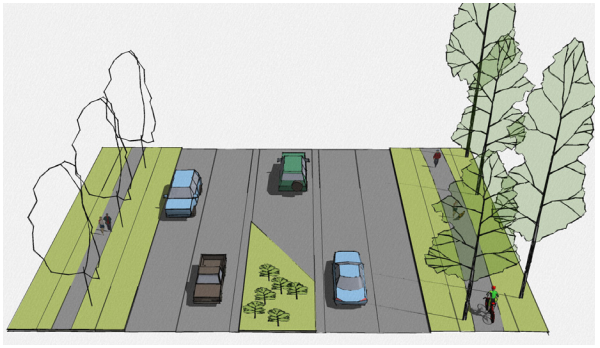
The multi-use off-street path proposed for SW Beef Bend Road would follow guidance like that found in Washington County Bicycle Facility Design Toolkit. Similar design treatment is envisioned for SW Roy Rogers Road where it abuts the URA 6D area.





Washington County Bicycle Facility Design Toolkit

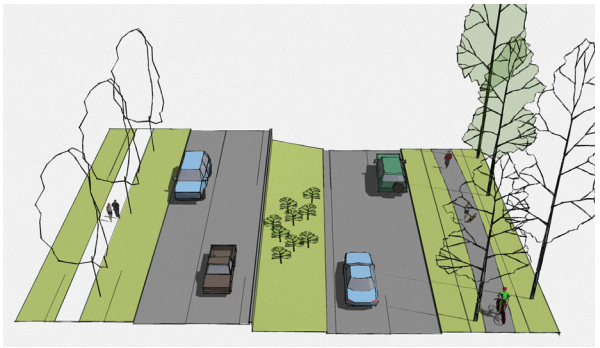
3-lane Beef Bend design at intersections



5-lane Beef Bend design at intersections

Beef Bend development design concept

3-lane Beef Bend design between intersections



5-lane Beef Bend or Roy Rogers design between intersections

Example of splayed travel lanes

Three-lane or five-lane Beef Bend

Beef Bend Road is suitable now as a three-lane facility, however, future proposed development could require a five-lane facility for capacity and mobility. Preliminary modeling by the County shows that a 5-lane facility may be necessary to accommodate the proposed development.

Future planning for the URA 6D would include transportation analysis that would measure the impacts of the proposed development, determine whether the roadway capacity is adequate for the proposed development, and identify mitigation that would be necessary to accommodate the proposed development.

It is anticipated that such analysis would be conducted during the Master Plan phase, and it would, in addition to the above, confirm the URA proposed development program, determine the street network capacity, the design and cost of the Beef Bend facility, and the financing plan.

Location and type of intersections on SW Beef Bend Road

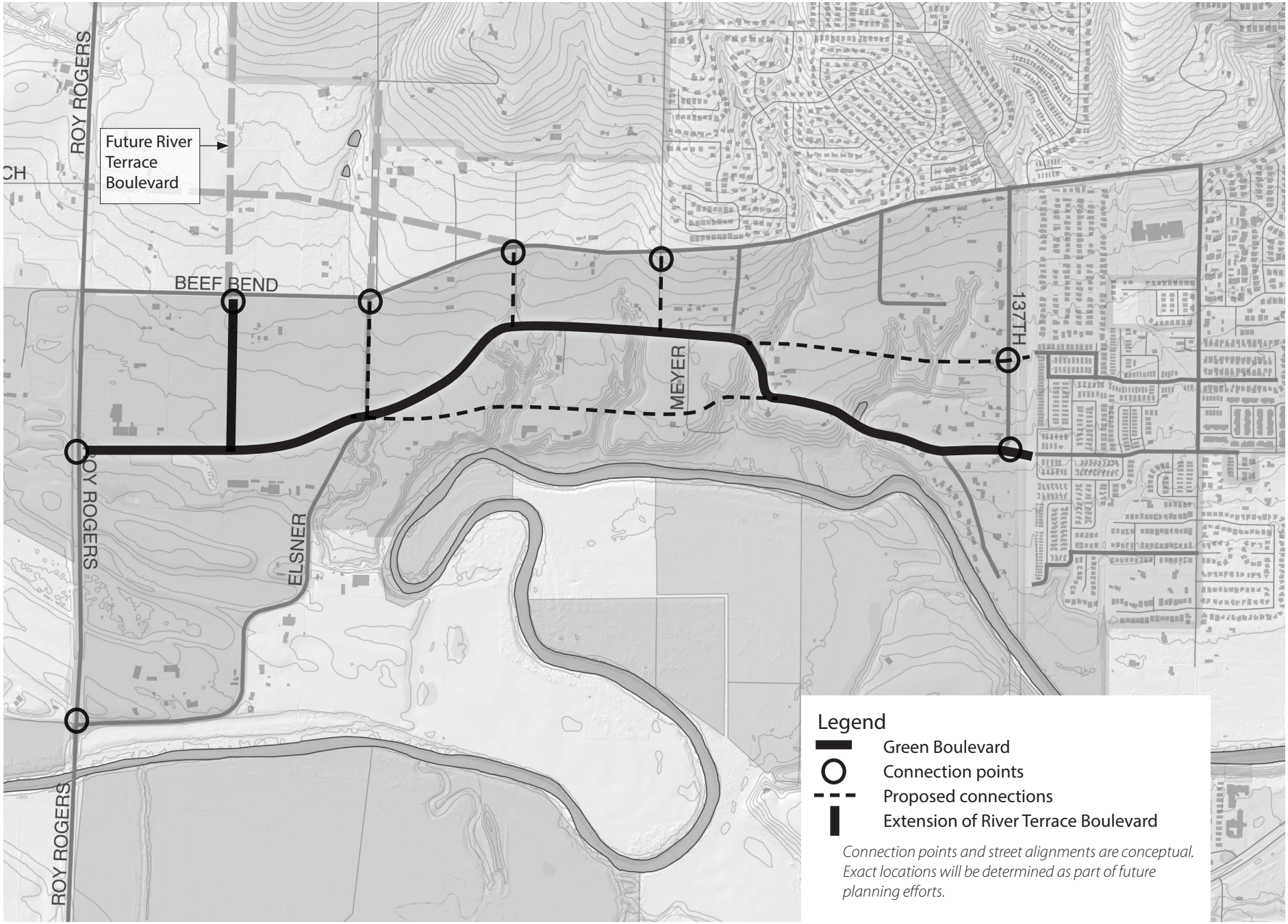
Location	Roy Rogers	River Terrace	Elsner	Cut-off	150th	137th
Intersection type	Signalized	Signalized	Signalized	Roundabout	Signalized	Oval-about

In certain locations on SW Beef Bend roundabouts may be preferable to signalized intersections, particularly to deal with the challenging situation at SW 137th Ave / Peachtree / Colyer (oval-about). Engineering analysis would need to satisfy any county concerns.

MOBILITY FOR ALL USERS

Every aspect of the Concept Plan emphasizes direct and pleasant facilities for walking, bicycling, and future transit. Active transportation is front and center to the design concepts:

- Streets and paths take a wide variety of forms—multi-use trails, alleys, green streets, shared streets, queuing streets, rural-style streets, boulevards, main streets— and are seamlessly integrated into a fine-grained network that serves transportation and recreation uses;
- Neighborhood design emphasizes walkable, urban-scaled blocks and buildings that face the street with porches and front doors, not garages or fences;
- Streets and paths are designed for the comfort and enjoyment of people of all ages;
- URA 6D streets and paths connect to the larger King City-Tigard-Washington County street and path network at every opportunity;
- Residential neighborhoods and the mixed-use main street are designed to provide walkable urban places that can be readily served by transit, and
- Streets that serve the region, such as Tigard River Terrace Boulevard and the extension through URA 6D, are designed to accommodate transit in the future.

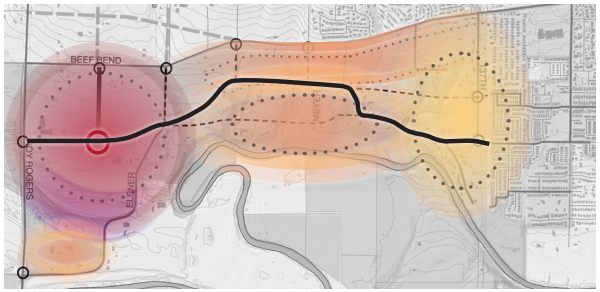

ROY ROGERS
Future River Terrace Boulevard
BEEF BEND
MEYER
137TH
ELSNER
ROY ROGERS
ROY ROGERS
Legend
Green Boulevard
Connection points
Proposed connections
Extension of River Terrace Boulevard
Connection points and street alignments are conceptual. Exact locations will be determined as part of future planning efforts.

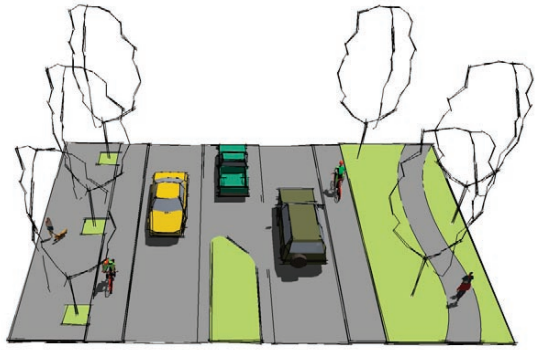
STREET TYPES

Green Boulevard

The Green Boulevard is envisioned as a street that will carry a moderate amount of vehicular traffic, while maintaining an approachable park-like character. In some places the boulevard may have a planted median and a separated multi-use path. In other places, such as through the Rural Character Neighborhood, it will take on the character of a rural road or country lane, with planted areas between the sidewalk and the drive lane. Planted areas will be designed to collect and treat stormwater. The Green Boulevard may include signalized and roundabout intersections. One lane of travel in each direction is desired, with left turn refuge pockets at major intersections, if traffic volumes require. The Green Boulevard could be built for a major east/west collector street within the URA.

The Green Boulevard design responds to the neighborhood context through which it runs. Through the Rural Character Neighborhood for example, planted areas that treat stormwater separate the drive lane from the walking path, creating a rural character that contrasts with the formal curb and park lane that typifies the Local Neighborhood and Queuing Streets.

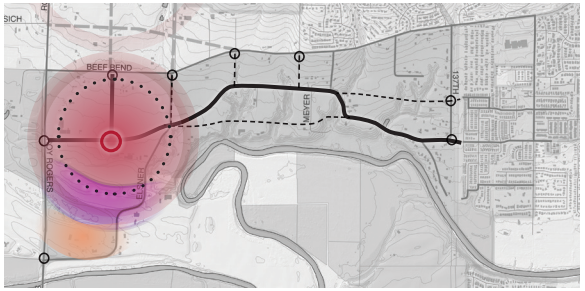


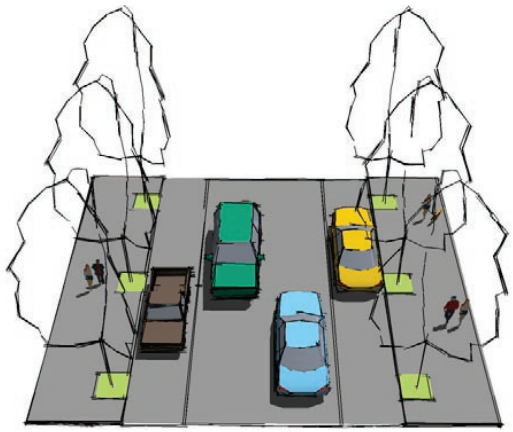


connects major destinations | planted median
stormwater management | separated multi-use path

Main Street

The Main Street has a narrow curb-to-curb distance. It is one travel lane in each direction with on-street parking, wide sidewalks and ample street trees. The street is designed for slower traffic speeds, and a main street-appropriate bike facility. This street type should be built in the heart of the new town center, where commercial and mixed use activities are prevalent. Buildings meet the edge of the sidewalk to encourage visual interest for pedestrians. Main Street is pedestrian and cyclist friendly, with the parked cars acting as a buffer between street traffic and the sidewalk.

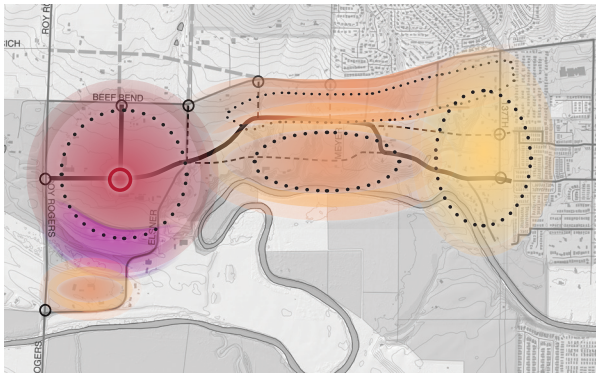




On-street parking | Slow traffic speeds | shared bike facility
wide sidewalks | street trees

Local Neighborhood

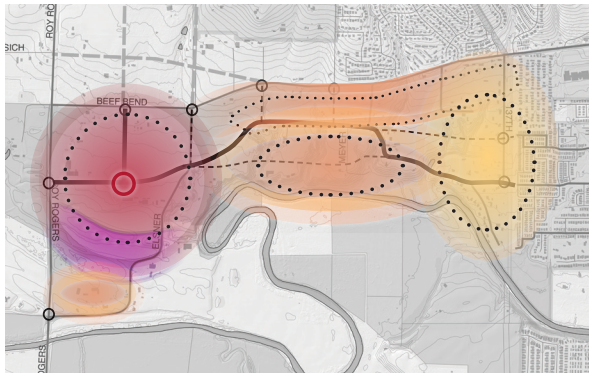
The Local Neighborhood street type is designed to connect neighborhoods to each other. This is a small street primarily used for local trips within the URA. It has a residential character with on-street parking, sidewalks, large tree canopies and one lane of travel in each direction.



connects neighborhoods | big tree canopies
residential character | stormwater management

Local Queuing

Similar to the Local Neighborhood street type, the Local Queuing street is designed to connect neighborhoods to each other. It has a residential character with on-street parking, sidewalks, and lots of street trees. The local queuing street has room for on-street parking on both sides and one lane of travel between parked cars. It has a narrower right-of-way and is designed for internal trips and local residents.

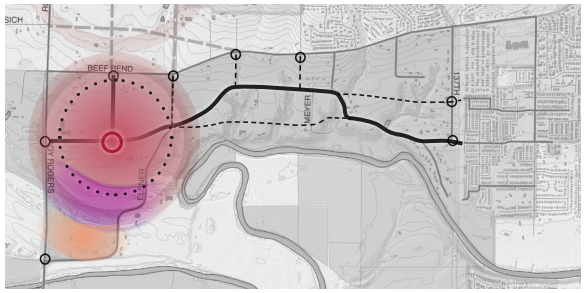


narrow right-of-way | on-street parking | shared bike facility
residential character

STREET TYPES

Shared Street

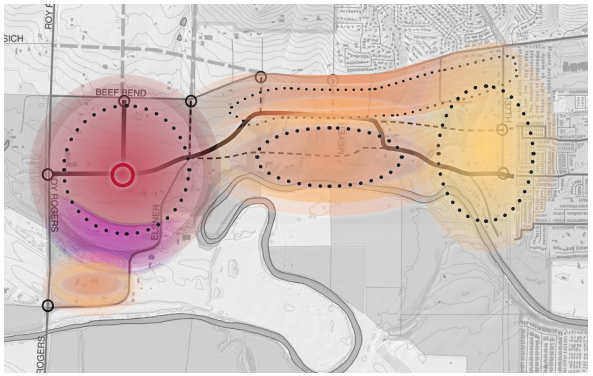
The Shared Street has a plaza-like feeling and is part of a more urban context. The design prioritizes pedestrians while still allowing vehicular traffic at very low speeds. This is a flexible street type that permits decorative paving and curbless edges, such as a festival street design. Shared Streets provide opportunities for community activities and may be adjacent to a plaza or other central gathering node.



community activities | decorative paving | festival street
prioritizes pedestrians and bicycles

Residential Alley

A Residential Alley contributes to a well-designed neighborhood. Unlike houses with garages in front, alley-accessed garages allow for front porches, ample street trees and more on-street parking. Collectively, these features create a desirable walking environment for pedestrians and allow for greater housing density.

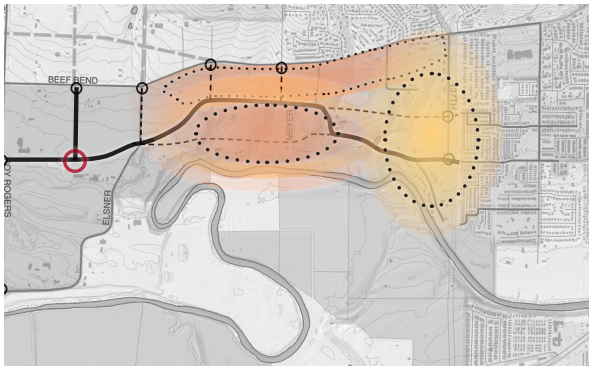


narrow right-of-way | allows for more street trees
on-street parking | visually appealing

STREET TYPES

Rural Character Street

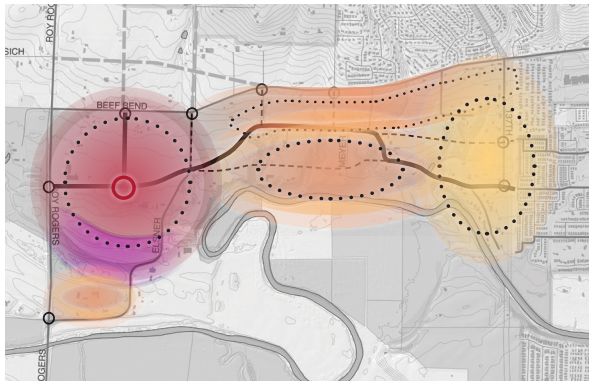
The Rural Character Street is modeled after the existing streets within the URA and is intended to help maintain the rural character of the area. The Rural Character Street has a planted area that separates the driving lane from the walking lane. The Rural Character Street is designed to be shared by all modes including vehicles, pedestrian, bicyclists and horses. Traffic volumes are low and the street serves lower-density residential areas, particularly on the east side of the URA.



street shared by all modes | low-volume traffic
residential character

Multi-Use Path / Trail

The Multi-Use Path provides opportunities for connections that are removed from vehicular travel, creating recreational spaces that are family-friendly. They can provide walking or biking paths through sensitive areas with a smaller footprint. Multi-use paths and trails are envisioned throughout the URA, connecting to regional paths and over deep ravines. They offer space for pedestrians, bicycles, horses and perhaps even golf carts.



Space for pedestrians, bicycles, golf carts and horses
connections to regional trails | family friendly

Public Utilities and Services Framework

Public Utilities and Services Infrastructure

Base Conditions Key Findings

Water

- Developed parcels within the URA planning area are currently served with on-site private domestic and/or irrigation wells.
- The public drinking water provider for King City, including future development of the URA is the City of Tigard
- Extension of transmission piping and possible development of additional storage facilities will be required to provide water service to the King City URA. Further study by the City of Tigard is recommended to identify the extent of deficiencies, need for additional infrastructure and funding mechanisms.
- Development should be coordinated with the City of Tigard as the water service provider for the area within King City.

Sanitary Sewer

- Developed parcels within the King City URA are currently served with on-site private septic systems.
- Clean Water Services (CWS) is the service provider for sanitary service within the City of King City and future development in the URA.
- CWS is in the preliminary planning stage of installing a sanitary sewerage pump station adjacent to Roy Rogers Road to serve the King City URA planning area and surrounding areas. In addition to the pump station, CWS is planning installation of a force main and gravity conveyance system improvements. This future pump station will also have the capacity to serve the western portion of the URA planning area.
- Natural topography and existing drainage ways limit the areas that can be served by gravity. It is expected that the southern half of the King City URA will require the installation of small developer pump stations as development occurs. A gravity trunk service option could minimize the need for smaller pump stations.
- Specific development should be coordinated with CWS to identify system needs based on the specific new development proposals.

Storm Drainage

- CWS is responsible for storm drainage throughout Washington County under a National Pollutant Discharge Elimination System (NPDES) – Municipal Separated Storm Sewer System (MS4).
- The King City URA consists of natural stormwater infiltration and conveyance through natural drainage ways that generally flow from north to south, ultimately discharging to the Tualatin River.
- The existing drainage ways are susceptible to erosion and degradation from high flows.
- New development within the planning area must meet CWS requirements, and it should occur in such a manner so as not to create an adverse impact to the existing storm drainage systems, in accordance with CWS' NPDES MS4 permit.
- Future development within the planning area should be coordinated with current upstream planning efforts to mitigate high flow events and prevent further degradation of the existing drainage ways.

Framework Design Philosophy

- Plan for utility infrastructure service that can accommodate the two development scenarios: more immediate development on the west within first ten years and slow incremental development over a longer period on the east.
- Provide equitable infrastructure fee system that works with property ownership and development pacing.
- Develop infrastructure plans that can be paid for by the development yield and is comparable to development fees in nearby jurisdictions.

OVERVIEW AND CONSISTENCY WITH VISION

As described in Section 4. Base Conditions and Key Findings, there is virtually no public water, sanitary sewer, or stormwater facilities within the planning area. This necessary public infrastructure must be provided to support urbanization of this area. The overall capacity of the service providers for this planning area and general vicinity is sufficient to serve this area. However, significant improvements and expansion of the existing public utility infrastructure will be necessary to support the vision and associated development. To a large extent, the design for each of the utility services—water, sanitary/sewer, and stormwater—will be dictated by topography and the location of sensitive natural features.

ALIGNING WITH THE VISION

- *Integrated stormwater management throughout*
- *Reduce runoff and heal erosion*
- *Use best practices for stormwater management and mitigation*

FUTURE SERVICE NEEDS

Water

Developing URA 6D will result in an increase in water demands and an extension of service that was not projected in the Tigard Water System Master Plan (Carollo, May 2010). Although not being proposed for inclusion into the UGB in the near future, URA 6C on the north side of SW Beef Bend Road will also ultimately increase water demand in this general area. This increase in demand from development is anticipated to trigger the need for additional 410-foot pressure zone storage to serve development on the west and south sides of Bull Mountain.

Future service to the planning area will require updated water system planning by the City of Tigard. In particular, Tigard will need to evaluate the need for, and timing of, additional 410-foot pressure zone storage and extension of transmission piping west along SW Beef Bend Road and south on SW Roy Rogers Road to serve the planning area and other urban development on the southwest side of Bull Mountain.

Water system infrastructure will likely consist of 8-inch and 12-inch diameter distribution mains for local domestic, irrigation and fire suppression service. This infrastructure will typically be located in existing and proposed rights-of-way and will be designed and constructed according to Tigard standards.

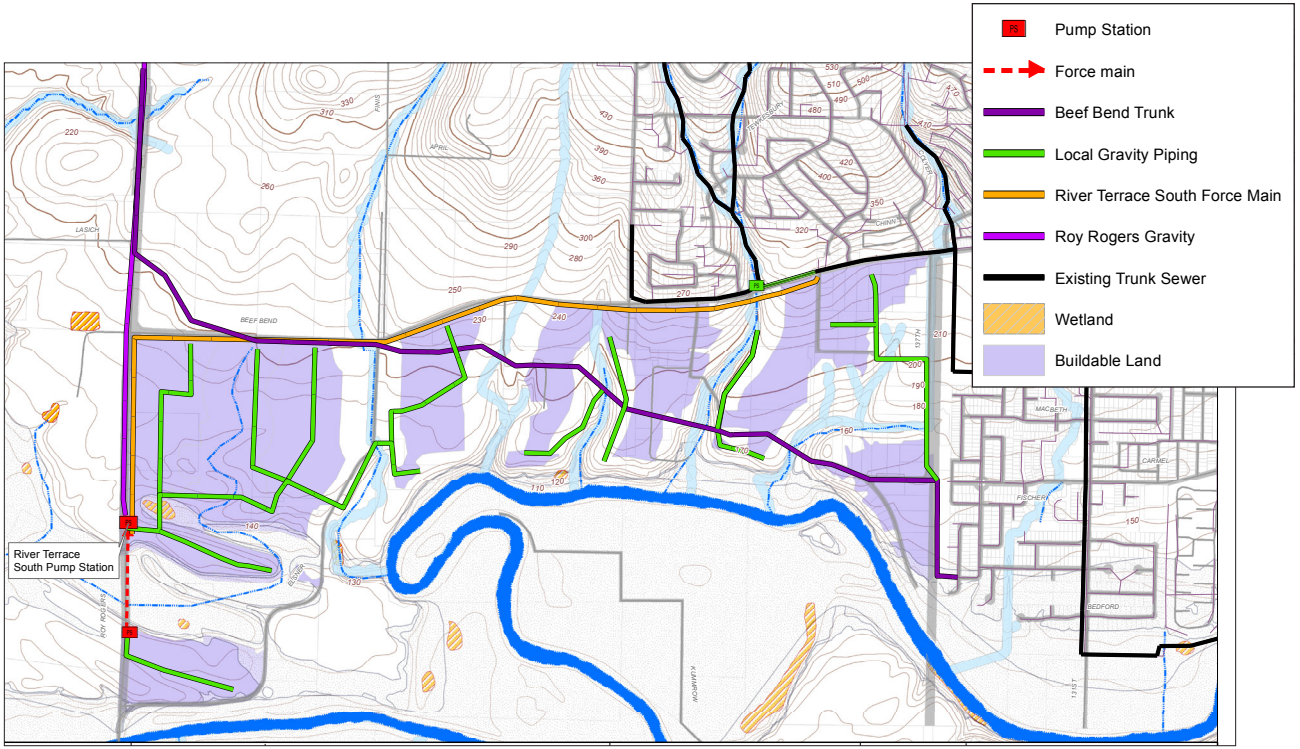
As development potential, phasing and timing are better defined, King City will need to provide Tigard with updated demand projections for the area to help inform water system planning and funding decisions.

Sanitary Sewer

The natural topography and existing drainage ways within the planning area create additional complexity for serving the entire planning area by gravity. The southern half of the planning area will require pump stations to lift sewage into the gravity conveyance system.

CWS is currently planning a new waste water pump station to be located on the west side of the planning area adjacent to Roy Rogers Road. This pump station will serve the western portion of the planning area, River Terrace South, and future urban development in URA 6C located between SW Beef Bend Road and River Terrace South. A force main will connect the proposed pump station to CWS' existing gravity system and will generally route north along Roy Rogers Road, then east along SW Beef Bend Road. Portions of the existing gravity conveyance system will be upgraded/upsized in conjunction with the construction of the new pump station. The pump station is being planned with the capacity to serve the King City URA.

Given this future CWS force main improvement, there are two potential options for serving development in the planning area with sanitary sewer. These alternatives will require additional coordination between King City, CWS, and the city of Tigard.



Option 1: Gravity trunk service through drainage culverts adjacent to roadways.

The figure shown above is preliminary in nature. It was developed to test the feasibility of public utility service at a concept level of planning, and is subject to change during master planning. During the Master Plan phase, the City will work closely with Clean Water Services and other municipalities to refine the design, location, phasing and funding of public utilities.

Option 1:

Gravity Trunk Service through URA 6D: This option would involve the installation of a gravity trunk line beginning north of the planning area along SW Roy Rogers Road, south and east to SW Beef Bend Road, and then east to the existing gravity flow system in King City. With this design, the western portion of the planning area would rely upon gravity flow to the CWS pump station on SW Roy Rogers Road. With the exception of the southern-most portion of the URA, the land located east of SW Elsner Road would generally be able to connect with the trunk line without pumping.

Option 2:

Small Subdistrict Pump Stations: This option would involve the installation of a series of smaller sub-area drainage pump stations that avoid drainage crossings and can develop incrementally. Smaller pump stations provide flexibility in the location and timing of development, however, from a cost and maintenance standpoint, the preferred design would be a series of gravity fed nodes with occasional localized pump stations.

The design of the sanitary/sewer system including pipe locations and configurations will be determined during the master planning process, in coordination with CWS. Pipe conveyance or future pump stations will be analyzed and coordinated with transportation projects.

Stormwater

Stormwater will follow the existing gradient and drainage ways to ultimately reach the Tualatin River. The key is in the design of individual development to properly manage stormwater volumes and to maintain or improve water quality. Development in the plan area can improve existing conditions through stormwater drainage improvements. New development within the King City URA will be required to meet CWS requirements, and stormwater facilities must be provided and in a manner that will not create adverse impacts for the existing drainage systems and environmentally sensitive areas. As the lead regulating agency, CWS will be consulted on stormwater management issues for new development in the URA planning area. Based on a review of the current CWS regulations, development within the URA planning area will be expected to conform to the following minimum requirements:

Existing Wetlands

Freshwater wetlands are present in the planning area and are part of the storm drainage system. Construction activities that impact existing wetlands, streams or sensitive areas may be subject to permitting through the Oregon Division of State Lands, the U.S. Army Corps of Engineers, and/or CWS. Wetland delineations will be required as part of the development process for properties containing potential wetlands to determine impacts and permitting requirements.

Drainage Channel Setbacks

Development setback requirements will be required for drainage channels, wetlands, and sensitive areas. The setback distance is determined by CWS or other regulatory agencies, and it is dependent upon the type and quality of the resource. Setback provided for recent development in River Terrace and King City would be indicative of the setback requirements that will be required within the planning area.

Hydrologic & Hydraulic Analyses

New development will be expected to evaluate the drainage basin(s) upstream and downstream of the site to determine the system capacity and verify that no adverse impacts will occur with increased storm water runoff. In some cases, this analysis will need to evaluate erosion or environmental damage causes by existing upstream development located outside of the planning area.

Off-site Improvements

Developers may be required to construct improvements to the storm drainage system outside of the planning area boundary to increase system capacity and mitigate adverse impacts created by development within the planning area.

Stormwater Management

On-site stormwater management should be expected if the proposed development has the potential to adversely affect upstream and/or downstream properties. Low Impact Development Approaches (LIDA) are Stormwater management approaches that optimize upland controls and enhance the natural resources to protect the water quality of the Tualatin River basin through a variety of tools, including grey infrastructure, green infrastructure and natural resource enhancements. Stormwater management approaches address water quality and impacts from post-development run-off. Situations that might require LIDA stormwater management approaches include, but are not limited to, potential downstream flooding due to increased peak stormwater flows, or potential upstream flooding due to high water levels in existing drainage channels. Existing natural areas may be a possible location to construct new LIDA stormwater facilities. Every street planned for URA 6D is assumed to function for stormwater conveyance and treatment, as well as for transportation. CWS maintains LIDA facilities that are designed to CWS standards. Note: flood control is regulated by FEMA and Washington County, not CWS.

Water Quality

Development of the subject area will need to conform to CWS stormwater quality and treatment requirements.

SERVICES

Tualatin Valley Fire & Rescue

Tualatin Valley Fire & Rescue (TVF&R) serves the King City Urban Reserve area. Planning for development of the area should consider transportation and water infrastructure to support emergency response needs. Not only is access to residential and commercial areas of concern to the Fire District, but connectivity through the area can impact response times. More specifically:

Topography

As streets are provided to accommodate new development, they should be designed to provide multi-modal access and in compliance with TVFR's access standards to ensure appropriate emergency response. The Fire District requires that fire apparatus roadway grades not exceed 12%. When fire sprinklers are installed, a maximum grade of 15% may be allowed (Oregon Fire Code 503.2.7).

Water infrastructure

Water from fire hydrants should be sufficient to provide at least 1,000 gallons per minute to all single-family and commercial buildings. If a structure is 3,600 square feet or larger, then additional flow may be needed (Oregon Fire Code B105.2). The Fire District strongly encourages new residential developments to include fire sprinkler systems to decrease fire and life safety risks.

Emergency Response

Based on years of public opinion research, TVF&R's citizens have consistently voiced that fast and effective emergency response is their top priority. In addition to Station 35 in King City, a network of fire stations serves this area. As part of a 10-year plan, the Fire District has identified at least seven sites, including West Bull Mountain, where additional fire stations and infrastructure will improve response times. Factors considered for station placement include housing density, types of development, demographics, and transportation infrastructure. As more specific details emerge about development in this area, Fire District planners will be able to assess what deployment changes might be needed. TVF&R's Standard of Cover reflecting response time standards is available upon request.

Police Capacity and Coverage

King City currently participates in regional public safety and law enforcement response and will continue to be a regional resource for King City and the surrounding communities. Recent annexations in 2017 have allowed the City to expand its police coverage and is now capable of staffing a department 24 hours a day, 7 days a week. Regardless, as a small city, King City lacks many of the resources of larger agencies. To that end, the City attempts to collaborate with partner agencies in an effort to ensure our officers have the best training available in order to respond effectively to the needs of King City and the surrounding areas.

The City provides financing for its local law enforcement through a tax levy of $0.55 p/1000 of assessed tax value. The city's tax levy in addition to the permanent tax rate of $1.53 p/1000 provides the City with consistent revenue to ensure continued operations and support for the City's law enforcement officials. With expanded area demands on city services are expected to increase and the City will likely need to add 3-5 additional officers at an average cost of $109,000 annual salary and benefits. The resulting range of salary and benefit expense to the city would range between $330,000 - $555,000 annually. The proposed expansion area is projected to add over 3,000 units. Given an average assessed value of $300,000 per unit, the current police levy is estimated to generate over $600,000 in tax revenue. These projected funds should help offset department expenses in addition to the salary expenses estimated previously.

Public School

A primary school site is assumed as part of the institutional/park mix of the Main Street/Town Center neighborhood. King City and the Tigard-Tualatin School District will continue to coordinate school siting needs during the master planning process.

Infrastructure Funding

NEED FOR A FUNDING STRATEGY

The planning area requires a variety of new infrastructure in order to develop in a manner that is consistent with the community Vision and Goals for the area and aligns with regional need and market potential. The King City West Funding Strategy by Leland Consulting Group (LCG), November, 2017, lays out major infrastructure projects and details how each infrastructure project might be funded. A funding strategy was created for a number of reasons.

- **Fragmentation of Ownership:** Property ownership is fragmented and varies greatly in size. In some cases, one property owner or developer controls a large area of land and in other instances the owner controls a single small lot. These owners may have different desires for how or if they wish to develop their land. In addition, certain areas within URA 6D pose development challenges due to access, slope, or other environmental constraints.
- **Timing and Phasing:** The western portion of the plan area has larger parcels and less ownership fragmentation. As a result, the western section is likely to see substantial coordinated development earlier than the eastern or central portions.
- **Physical Features:** The topography, including major ravines, presents specific challenges to infrastructure development by increasing costs for items such as new east-west streets because of increased need for bridge or culvert facilities.
- **Multiple Jurisdictions:** A number of different public agencies and entities are likely to be involved in the provision of infrastructure within the study area and surrounding areas.

Description of Funding Categories

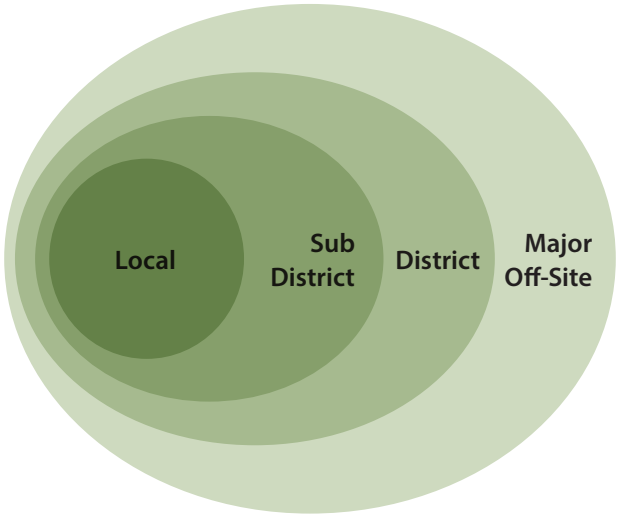
Infrastructure projects are organized into one of four categories:

Major off-site: Most often located outside of the planning area boundary and, while it might bring some benefit to the plan area, it primarily serves a larger area and is likely to be funded by a city, county or other regional capital improvement program.

Framework or district: Serves residents and businesses in the entire plan area and is fundamental to achieving the plan vision. Framework infrastructure is usually larger scale and more expensive than Subdistrict or Local infrastructure.

Subdistrict: Larger than one property but doesn't necessarily benefit the entire plan area. Subdistrict infrastructure might serve a 50 – 100-acre area, such as a neighborhood.

Local or on-site: Located on or adjacent to a development property and mostly serves the development. This infrastructure could be any type including transportation, sanitary sewer, water, stormwater or parks. Local infrastructure is largely paid for as part of a development project.



Infrastructure Costs and Allocation

The Funding Strategy recommends that some infrastructure costs be allocated to the entire plan area, to various subdistricts within the plan area or to parties outside of the plan area based on what area the project benefits. In general, the more broadly the infrastructure serves an area, the more broadly the cost is shared. Likewise, the smaller the area being served by infrastructure, the smaller the area of cost allocation.

Need for Equitable Allocation of Larger Costs

Framework infrastructure was the focus of the funding plan because it is important to fairly and equitably allocate larger costs. In addition, unduly burdening some developers with a greater share of costs can significantly reduce the financial feasibility of developing their land. "Oversize cost" is a concept designed to more equitably distribute costs. This is the difference between the typical local infrastructure costs and the costs of larger framework infrastructure. Since all developers will be required to build and pay for local infrastructure to serve their properties, it is only the oversize cost that is allocated to developers throughout the district.

Cost Estimations and Assumptions

All estimates are preliminary in nature and intended to provide high-level analysis appropriate for the concept planning process. The numbers represented in the Funding Strategy were built from cost estimates provided by Murraysmith and Associates. Different assumptions were used by LCG in the Funding Strategy. They do not include the cost of right-of-way acquisition, which is assumed to be dedicated by the developer or property owner.

Infrastructure Type	Project Name and number		Infrastructure Category	CIP Project (SDC Creditable)
Transportation	T2	Beef Bend Road, Roy Rogers to 150th Road	Framework	No
		Off-Site Intersections (SCJ)	Major Off-Site	
	T1	Green Boulevard (Collector, internal to URA)	Framework	No
	T4	Culverts	Framework	No
	-	Local Streets	Local	No
Framework Utilities	-	Stormwater in Framework ROW	Framework	No
Major Sanitary Sewer (SS Concept 2)	SS1	River Terrace South Pump Station/Forcemain	Major Off-Site	No
	SS2	Subdistrict Pump Stations/Forcemains	Subdistrict	No
	SS3	Trunk Sewer (Concept 1 only)	Framework	No
Water	W1	Storage, Zone 410	Major Off-Site	No
	W2	Transmission: Beef Bend Road	Framework	No
	W3	Transmission: Roy Rogers Road	Framework	No
Parks	P1	Community Park (1 park)	Framework	Yes
	P2	Neighborhood Parks (3 to 5 parks)	Framework	No
Stormwater	S2	Subdistrict Facilities (5)	Subdistrict	No
	S1	On-site management	Local	No
School District	SD1	Primary School	NA	No

Infrastructure Summary Table, King City Funding Memo (LCG)

Figures and funding assumptions are preliminary, based on current information, and subject to change during master planning. During the Master Plan phase, the City will work closely with Washington County and other municipalities to refine the infrastructure funding plan.

Project Name	Cost Estimate Total	Cost Allocation				
		Min.Req.	Other Parties	See text for more information.	Framework Oversize allocable to plan area	Subdistrict Allocable to subdistricts
Beef Bend Road, Roy Rogers to 150th Road	$17,435,000	-	$8,717,500	Dev'ment north of BB.	$8,717,500	
Off-Site Intersections (SCJ)	$6,070,000				$6,070,000	
Green Boulevard	$26,140,282	$17,437,500			$8,702,782	
Culverts	$7,650,000	-			$7,650,000	
Local Streets	Not estimated	-			-	
Subtotal					**$31,140,282**	
Utilities in Framework ROW	Incl. in above.					
River Terrace South Pump Station/Forcemain	$4,800,000		$3,502,703	RT & other developers.	$1,297,297	
Subdistrict Pump Stations/Forcemains	$2,500,000					$2,500,000
Trunk Sewer (Concept 1 only)	NA				NA	
Subtotal					**$1,297,297**	
Storage, Zone 410	$2,500,000				$2,500,000	
Transmission: Beef Bend Road	$3,000,000		$1,500,000	50% allocated elsewhere.	$1,500,000	
Transmission: Roy Rogers Road	$2,800,000		$1,400,000	50% allocated elsewhere.	$1,400,000	
Subtotal					**$5,400,000**	
Community Park (1 park)	$5,891,340				$5,891,340	
Neighborhood Parks (3 to 5 parks)	$9,314,880				$9,314,880	
Subtotal					**$15,206,220**	
Subdistrict Facilities (5)	Not estimated					Likely Yes, TBD.
On-site management	Not estimated					
Primary School	Not estimated		TBD	School District		
Total	**$88,101,502**	**$17,437,500**	**$15,120,203**		**$53,043,800**	**$2,500,000**

Infrastructure Costs and Allocation, King City Funding Memo (LCG)

All figures are preliminary, based on the best information available at this time and subject to change during the master planning phase. Further transportation assessments are underway and will be provided as supporting documentation. The City will work with Washington County and other agencies to refine the infrastructure funding plan during the master planning phase of the project.

Supplemental Fee for Framework Infrastructure

Four framework infrastructure projects were identified in the Funding Strategy. These projects are essential to the plan area development and will have an impact on the entire district. Their cost will be shared throughout the district and are described in more detail below.

- **Green Boulevard:** As described in the infrastructure projects map, only the oversize cost is to be allocated to developers throughout the whole plan area. The remaining $17.4 million would be paid by property owners adjacent to the boulevard.
- Beef Bend 137th to Roy Rogers Road: The total cost estimate reflects both the north and south sides of Beef Bend Road. In keeping with typical policy, only the south side would be allocated to the plan area. The north side should be paid for by future developers of URA 6C (a separate urban reserve area), the City, County, or other party.
- **Culverts:** A series of culverts that will span creeks and sloped areas within the plan area is a key component of the Concept Plan. These are necessary in order to establish east-west connectivity. The entire cost ($7.65 million) is oversize and allocated to the district.
- **River Terrace South Pump Station/ Forcemain:** This pump station/forcemain will be required in the plan area. However, according to Murraysmith, about 73% of the demand for this facility will originate outside of the plan area, including the River Terrace area. The remaining 27% of demand will originate from within the plan area. Therefore, the costs of this project have been allocated on a pro rata share, with 27% allocated to the plan area.

LAND USE PROGRAM AND FEE CALCULATION

Land Use Assumptions

In order to allocate the costs of infrastructure to individual residential and commercial developments within the plan area, a land use program (the number and type of homes, offices, retail establishments, etc.) must be known or assumed. Because of the high-level nature of a concept plan, the amount of housing and commercial development is quite variable and would be further refined in the master planning process. The land use program assumed for a funding plan is shown in the Land Use Program Table. It is intentionally conservative regarding the ultimate amount of housing and commercial space; for example, a 20% housing "underbuild" is assumed here. This is a precaution put in place in case the amount of development (and therefore fees generated) is less than anticipated.

Supplemental Fee for Residential and Commercial Development

Using the Land Use Program assumptions about density and amount of development, LCG calculated a Supplemental Fee for the plan area. The Supplemental Fee table shows LCG's calculation of the supplemental fee for the plan area. An administrative fee of 5% was added to the total infrastructure cost in order to compensate the City, or other administering agency. The costs were then divided between the residential and commercial development based on LCG's estimate of the share of demand (for transportation and sanitary sewer infrastructure) that each category will comprise.

Plan Area	
Gross	525
Buildable	318
%	61%
Density per Buildable Acre	
Average	12.0
Housing Units	
Estimated total	3,816
20% Underbuild, for funding analysis	3,050
Commercial (SF)	75,000

Land Use Program Table (LCG)

Residential	Estimated Housing Units		Allocated	Supplemental
	%	#	Cost	Fee/Unit
Single Family Dwelling	70%	2,135	$41,964,324	$19,655
Apartment	18%	549	$6,908,527	$12,584
Residential Condominium	6%	183	$2,090,207	$11,422
Manufactured Housing	0%	-	-	-
Assisted Living/Hospital/Nursing Hom	6%	183	$1,100,176	$6,012
Total	**100%**	**3,050**	**$52,063,234**	

Commercial	SF	Allocated Cost	Supplemental Fee/1,000 SF
	75,000	**$3,632,755**	$48,437

Supplemental Fee for Residential and Commercial Development, (LCG)

All figures are preliminary, used to determine feasibility at a concept-level of planning and subject to change during the master planning phase. The City will work with Washington County and other agencies to refine the infrastructure funding plan during the master planning phase of the project.

Fee	King City URA 6D	Tigard River Ter.
WA County TDT	$8,458	$8,458
City Transportation SDC	-	$8,501
Parks SDC	-	$8,470
Sewer	$5,500	$5,500
Water Quality Fee (CWS)	$292	$292
Supplemental Fee (URA 6D)		
Transportation	$11,539	
Major Sanitary Sewer	$481	
Water	$2,001	
Parks	$5,635	
Subtotal	$19,655	$0
Total	**$33,905**	**$31,221**

Single Family Infrastructure Fee Comparison (LCG)

Based on preliminary calculations and current assumptions, the total infrastructure-related fees in the King City plan area can be competitive with those in nearby areas.

This estimate was based on a review of existing King City SDCs and the assumption that these SDCs are a reasonable reflection of infrastructure demand by use. More information can be found in the King City Urban Reserve Area Funding Strategy (LCG, December 2017) in the appendix.

Fee Comparison

Fees should be comparable to other infrastructure fees and taxes assessed by other cities in other developing areas nearby. If the costs of development in the plan area are much higher than the costs in other locations, developers will avoid building in the plan area.

Development fees in the plan area were compared to those in the Tigard River Terrace, located just north of the plan area. Based on preliminary calculations and current assumptions the total infrastructure-related fees for a single dwelling in the King City plan area can be competitive with those in nearby areas. Agencies that provide services to URA 6D (such as Tigard and CWS) reserve the right to conduct updates to their system development charges (SDCs) and may impose "supplemental SDCs" or "regional stormwater management charges" (RSMC) on URA 6D or identified subareas.

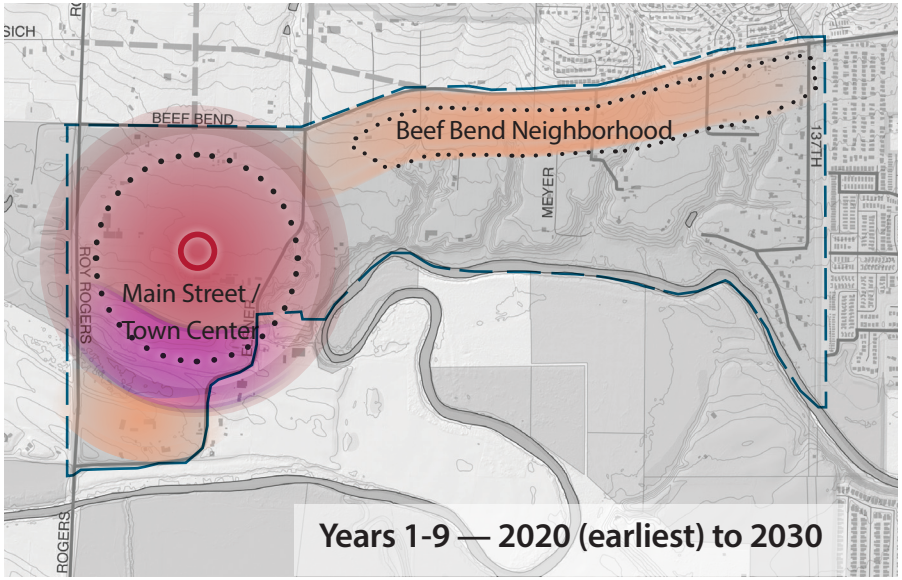
6. CONCEPT PLAN RECOMMENDATION

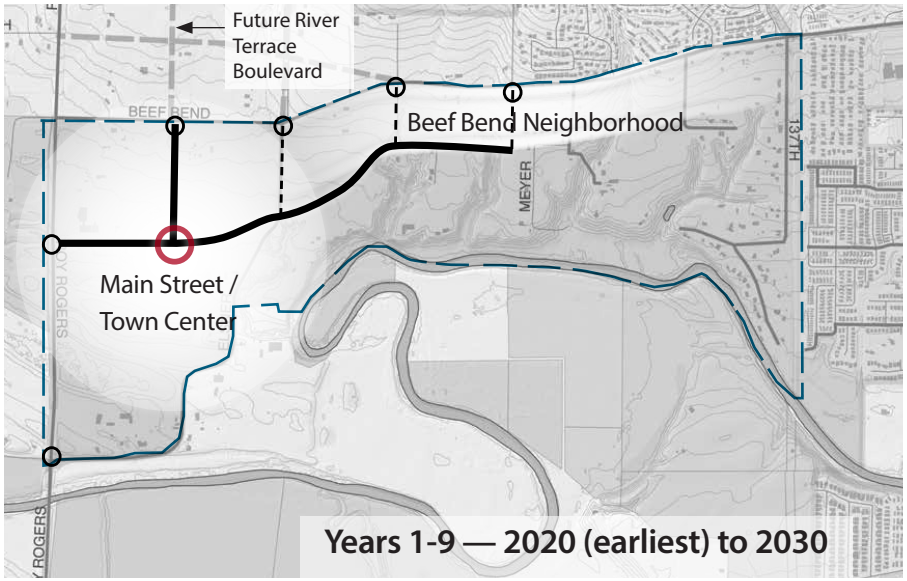
Development Phasing

If Metro brings URA 6D into the UGB in 2018, the anticipated market demand will be sufficient to prompt housing and commercial development within this area. Given the time necessary to complete additional planning steps (noted in "Overall Planning Time Line," page 6), construction would not be possible until after 2020.

Development of URA 6D is generally envisioned to occur with a first phase in the western and extreme northern portion of the planning area between 2020 and 2030 followed by a second phase in the central and eastern portions of URA 6D after 2030. A more definitive annexation plan will be developed as part of the master planning scheduled to begin in 2019. However, the general annexation concept would be to work with agency partners and interested property owners to create a logical and cost-effective strategy for annexation and provision of necessary infrastructure, transportation facilities, and urban services to support development. This strategy would be based upon a strong preference to annex property in a westerly direction from the existing King City rather than "cherry stem" annexation along street right-of-way. The annexation and development strategy is described in more detail in the following pages.

PHASE ONE DEVELOPMENT PROGRAM





The largest properties and highest development interest are generally located in the vicinity of the Main Street / Town Center. In addition, some interest in annexation and redevelopment has been expressed within the Beef Bend Neighborhood. It is assumed that many of the property owners in these areas would request annexation once able to do so after 2020.

Between 2020 and 2030, the Main Street / Town Center and the Beef Bend Neighborhoods are where the majority of the first 500-950 new dwelling units would be located. This amount of housing demand is forecast in the market analysis conducted by Leland Consulting Group (LCG). Major infrastructure, such as the Clean Water Service pump station along Roy Rogers Road and at least a portion of the western segment of the Green Boulevard, would be constructed during this period.

Commercial development relies on visibility and access to Roy Rogers and Beef Bend roads, as well as flatter land. The LCG analysis forecasts a demand for 40-60,000 square feet of neighborhood retail that would be developed near the intersection of the future Tigard River Terrace Boulevard and the new east-west connector street. This commercial development is anticipated six or more years after annexation (2026-2030). Between 2026 and 2030, 40,000 square feet of retail development are possible in the Main Street / Town Center. Additional commercial business may follow in subsequent years as URA 6D and the neighboring urban areas, such as Tigard's River Terrace, develop.

Main Street / Town Center and Beef Bend Neighborhoods

Years 1-9 — 2020 (earliest) to 2030

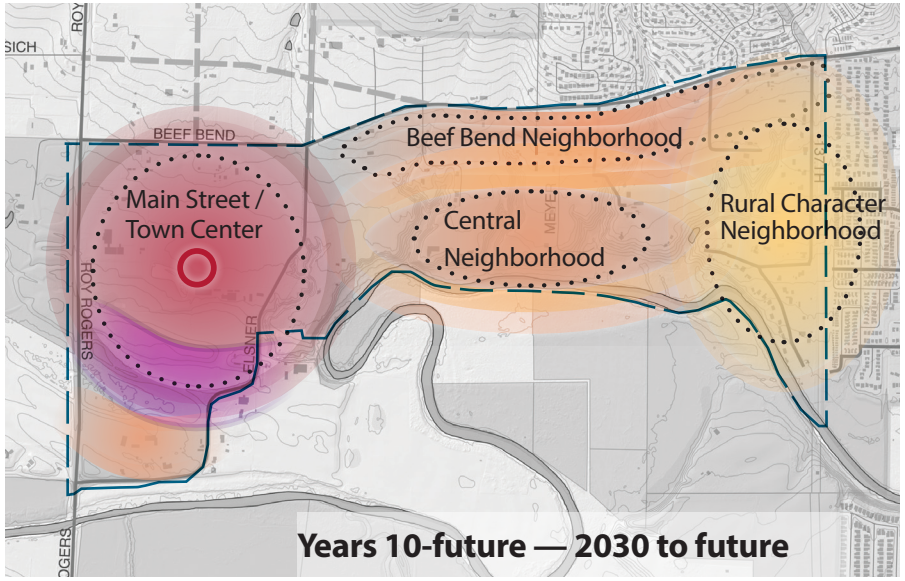
Housing Units 500 - 950	**Single dwelling** Rowhouses | Duplexes | Detached with or without ADU | Cottage Clusters
	Multi dwelling Apartments – stand-alone or over retail

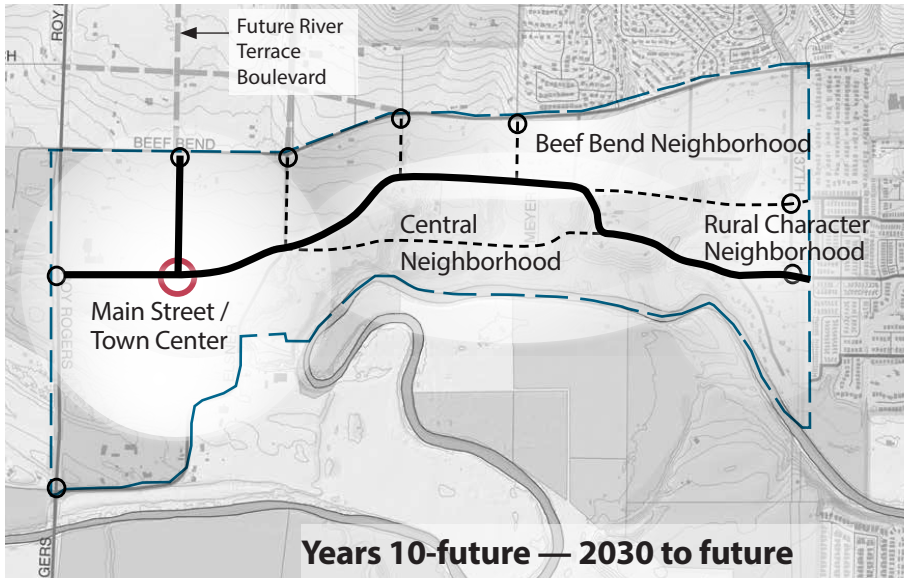
Main Street / Town Center

Years 6-9 — 2026 (earliest) to 2030

Commercial (square feet) 60,000	Retail | Neighborhood retail center

PHASE TWO DEVELOPMENT POTENTIAL





Sometime after 2030, an additional 2,626-3,0766 units are anticipated in the Main Street / Town Center, Beef Bend Neighborhood, General Neighborhood and the Rural Neighborhood.

Development and redevelopment on the east side is not anticipated for a decade or more after the Master Plan adopted. As will be the case throughout URA 6D, the pace and location of development activity will be largely driven by the desires of individual property owners to do so. During the master planning process, additional attention must be paid to the existing character of the Rural Neighborhood and where and how any development or redevelopment should occur. When lands are brought into the UGB by Metro, the County assigns an interim land use designation of Future Development 20-Acre District (FD-20). The purpose of this district is to provide for limited and interim uses until the land is annexed into King City. As indicated in the Overall Planning Time Line, land use regulations and transportation network options for the different neighborhoods (Main Street / Town Center, Beef Bend, Central, and Rural) would be developed with property owner participation as part of the Master Plan. These regulations would be known but would not become effective until property is annexed.

Main Street / Town Center, Beef Bend, Rural and Central Neighborhoods

Years 10-future — 2030 to future

Housing Units 2,626 -3,076	**Single dwelling** Rowhouses | Duplexes | Detached with or without ADU | Cottage Clusters
	Multi dwelling Apartments – stand-alone or over retail

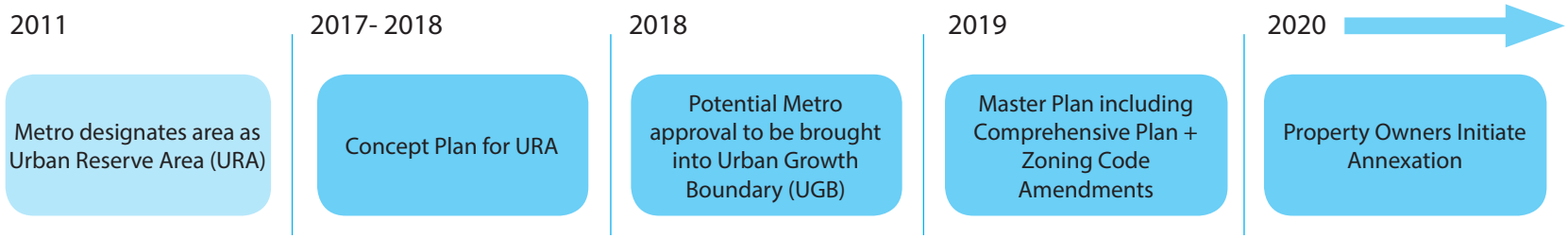
Main Street / Town Center

Years 10-future — 2030 to future

Commercial (square feet) 20,000 - 60,000	Retail | Campus-style employment or institutional uses Hospitality

7. NEXT STEPS

Overall Planning Time Line



This concept plan represents the beginning of the planning process that will require several subsequent steps before development may actually occur within URA 6D. The overall planning timeline includes the following:

INCLUSION INTO THE UGB

The completion of the Concept Plan qualifies URA 6D to be considered by Metro for inclusion into the Urban Growth Boundary (UGB). Urban development is contingent upon first being within the UGB. A city application to include URA 6D in the UGB will be considered by the Metro Council in 2018 with a final decision planned for December 2018.

MASTER PLAN

The Concept Plan will need to be refined with a master planning effort that could begin as early as 2019. There will be multiple purposes for the Master Plan including, but not limited to:

- Refining the land use concept by more specifically identifying land use and development parameters.
- Conducting additional planning, design, and coordination with partner agencies regarding public facilities and infrastructure including: transportation, water, sanitary sewer, stormwater, parks, civic uses, and schools.
- Creating a phasing plan for development and the public facilities necessary to support it.
- Refining the financing mechanisms for providing necessary facilities and infrastructure.
- Identifying necessary updates for the King City Comprehensive Plan and Community Development Code.

KING CITY PLANS AND REGULATIONS

The King City Comprehensive Plan and Community Development Code will need to be updated to properly reflect the Master Plan and support its implementation. In particular, the Community Development Code will need to include new zoning districts and development regulations to ensure appropriate development outcomes in URA 6D. These amendments could occur along with, or subsequent to, the creation of the Master Plan.

ANNEXATION AND DEVELOPMENT

Urban development in URA 6D may not begin until all of the above steps have been completed. The city's main role is to make properties in the planning area ready for urban development. However, properties must be annexed into the city prior to development, and the initiation of annexation will be the responsibility of property owners.

KING CITY AND PARTNER JURISDICTION PLANNING ROLES

The planning and development of URA 6D will require a coordinated effort with a number of partner agencies and jurisdictions. The major partners and their roles are summarized below:

- City of King City – overall planning, public involvement, coordination, approval of property annexation, and development review.
- Washington County – planning coordination, especially regarding transportation.
- Clean Water Services – planning coordination and design and regulation of sanitary sewer, stormwater systems, and environmental protection.
- City of Tigard – planning coordination regarding land use, transportation, and water facilities.
- Tualatin Valley Fire and Rescue – planning coordination regarding emergency access and development review.
- Tigard-Tualatin School District – planning coordination regarding potential school siting.

8. APPENDIX

A. King City URA 6D Concept Plan Charrette Report, May, 2017

B. King City URA 6D Concept Plan Natural Resources Baseline Report, March 2017

C. King City URA 6D Concept Plan Transportation Baseline Report, March 2017

D. King City Market Analysis Memorandum, March 2017

E. King City URA Concept Plan Existing Public Utilities Baseline Memorandum, March 2017

F. King City Urban Reserve Area Funding Strategy, December 2017

G. URA 6D Maps

H. City of King City Housing Needs Analysis, 2018

I. King City URA 6D Traffic Operations Analysis, 2018

J. Service Letters and Contracts

K. Public Input and Comment