



# KINGSTON TERRACE EAST/WEST CIRCULATION STUDY | TAC MEETING #3

April 5, 2022

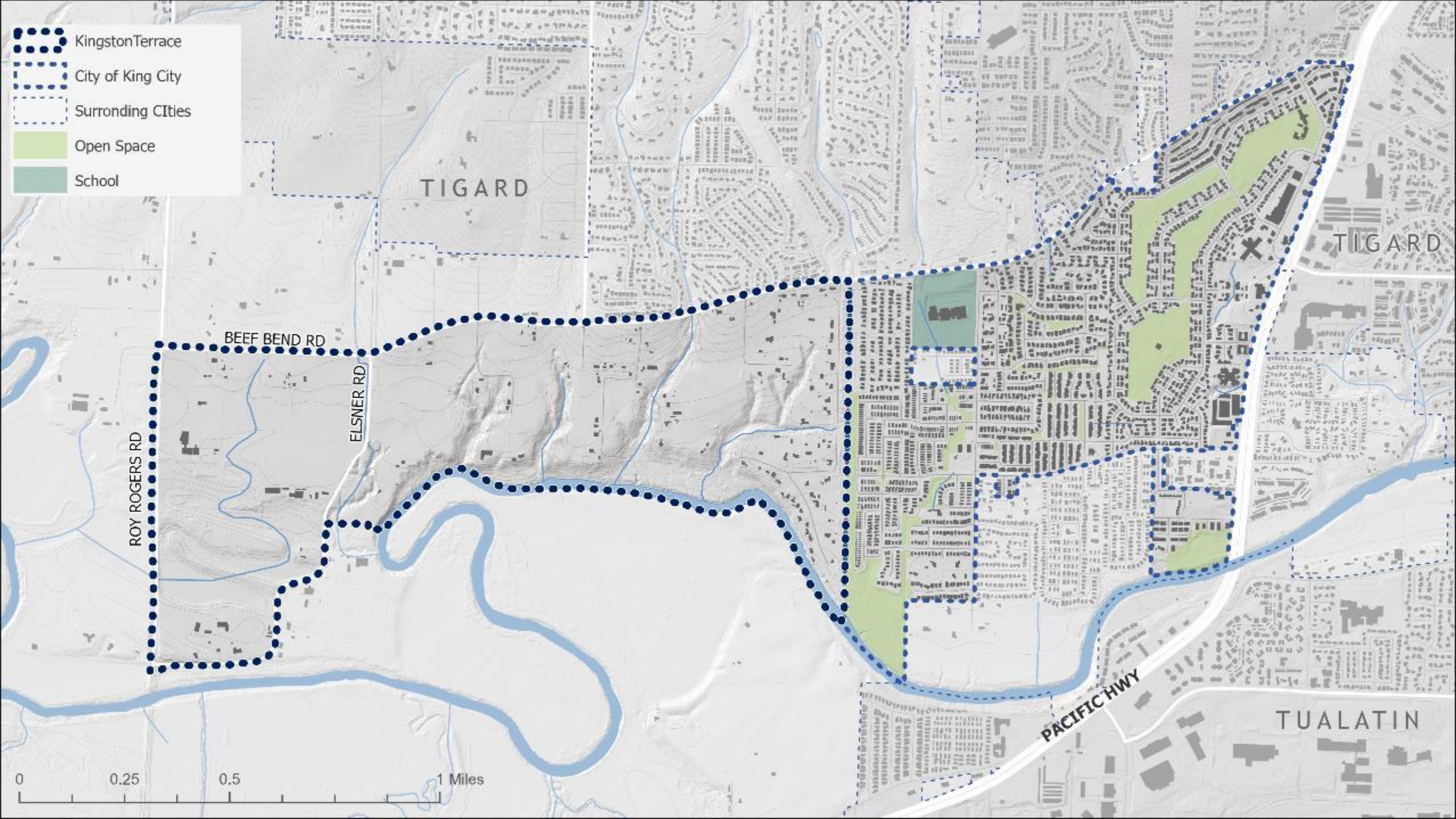


# WELCOME!

## Today's Agenda:

- Introduction
- Project Background and Status
- Circulation Study - Evaluation Criteria
- East/West Circulation Alternatives
- Public Comment
- Next Steps
- Adjourn

# Project Background and Status



## 2018 Concept Plan



## Master Plan



- Baseline Conditions
- Community Vision
- Preliminary Design Considerations

- Additional development detail
- Vision implementation



King City TSP

Tigard and County TSPs

Tigard River Terrace Planning

Comprehensive Plan  
and Development  
Code Amendments

**PROJECT OVERVIEW: *Putting the pieces together***

# OPPORTUNITIES AND CONSTRAINTS

## What remains fixed?

- Sensitivity to the Tualatin River, ravines and surrounding natural areas
- Approximately 318 developable acres
- Accommodation of 50,000 SF of commercial uses
- Accommodation of minimum of 3,300 dwelling units within four distinct neighborhoods
- High density residential near transit
- A spectrum of housing types
- Pedestrian and bike network connectivity

# OPPORTUNITIES AND CONSTRAINTS

## What is not fixed?

- Parallel vs. perpendicular main street
- Future development of select parcels (e.g., Bankston property, airfield)
- Future east-west connections
- Circular pattern vs. orthogonal for local street alignments
- Drainage areas/topography
- Gravity sewer pipelines across drainages
- East/west crossings – bridges vs. culverts

## OUTREACH AND ENGAGEMENT

- **Public Meeting** on March 15, 2021
- **Online Open House** live from March 1-31, 2021
- **108 community members** participated in the Public Meeting and Online Open House
- **Spanish** materials and translator
- Outreach to the **Korean**-speaking community
- **Ten** stakeholder interviews conducted in March and April 2021 (property owners, community members, and partner agencies)

**Invitations and information were shared with the following organizations:**

- Tigard Tualatin Aquatic District
- Tualatin River Keepers
- Ride Connection
- King City Lions Club
- Free Food Ministries Food Pantry
- St. Anthony's Catholic Church
- Tigard Senior Center
- Tigard Covenant Church
- Korean First Southern Baptist Church
- Unite Oregon (Washington County)
- King City Civic Center Clubhouse
- 1000 Friends of Oregon

**NOVEMBER 2020 – FEBRUARY 2021**



## OUTREACH AND ENGAGEMENT

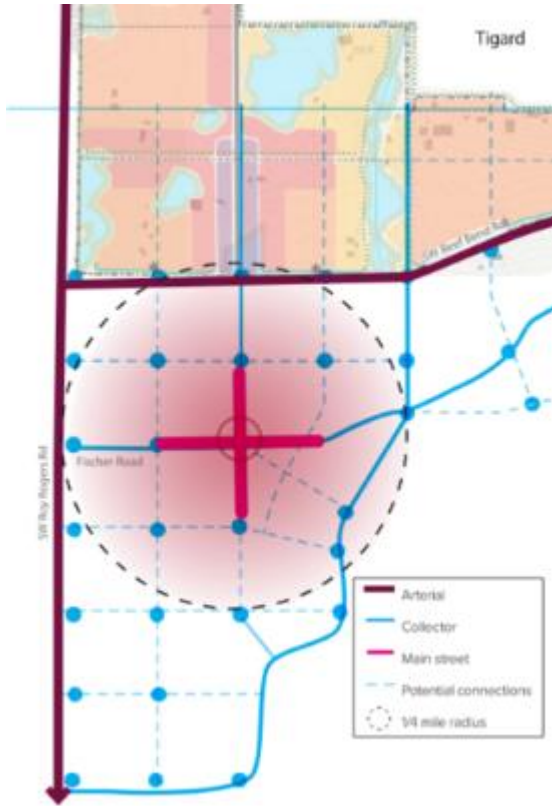
- Feasibility of infrastructure and associated costs, particularly related to drainage crossings.
- Protection and enhancement of natural resources.
- Character of adjacent neighborhoods.
- Rate of growth and development.

Key Concerns

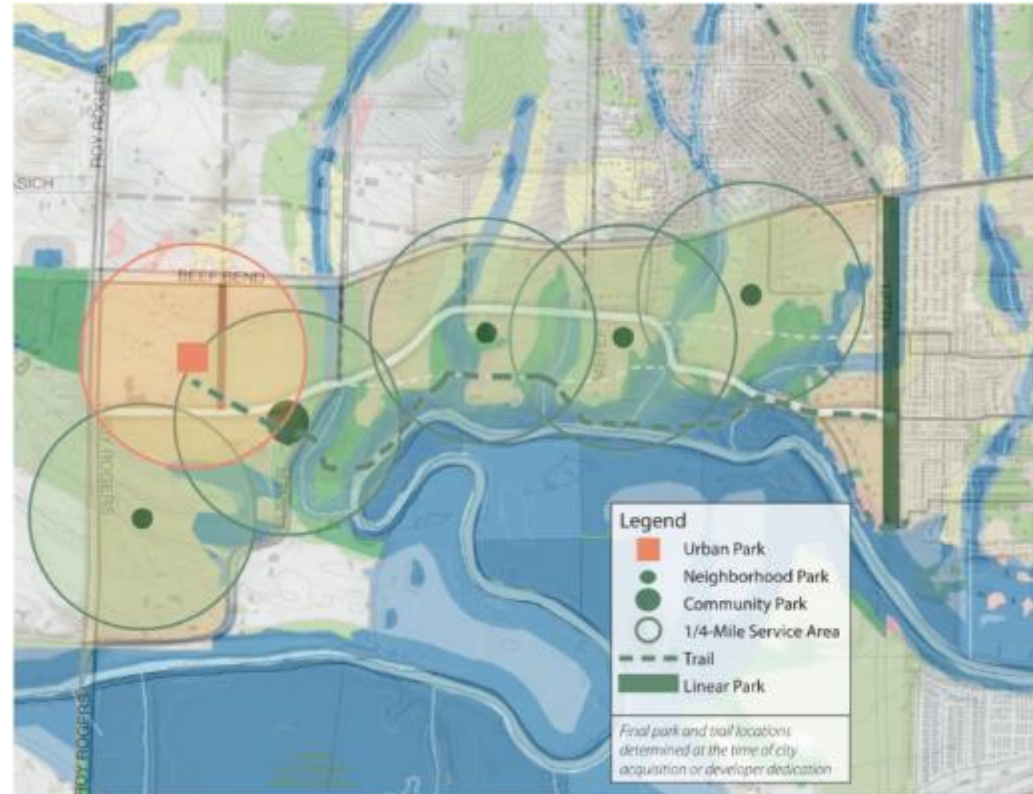
NOVEMBER 2020 – FEBRUARY 2021

# OUTREACH AND ENGAGEMENT

Town Center /  
Main Street Designs



Park and Open Space Types and Locations



Street Types



MARCH – MAY 2021

## **Why is having a continuous east/west collector street important?**

- Integrates King City through quality circulation from one end of town to the other, offering connectivity and accessibility.
- Supports proposed land uses and development in Kingston Terrace to achieve the vision.
- Reduces vehicle miles of travel (VMT) and enhances community sustainability.
- Provides a range of mode choices for residents and visitors and offers opportunity for the quickest travel times by all modes.
- Is supportive of potential future transit that touches the heart of the community.
- Supports better emergency vehicle travel times.
- Spreads the traffic burden throughout the network.

**STUDY CURRENT  
CONDITIONS**

**GOALS AND OBJECTIVES  
LAND USE CONCEPTS**

**DRAFT MASTER PLAN**

**DRAFT MASTER PLAN CONT'D  
IMPLEMENTATION STRATEGY**

**MASTER PLAN  
ADOPTION PROCESS**

**TRANSPORTATION NETWORK  
ALTERNATIVES**

Fall 2020

Winter 2021

Spring

Winter 2022

Fall

  
Community Meeting

  
TAC/SAC Meeting

  
Community Meeting

  
TAC/SAC Meeting

  
Community Meeting

  
TAC/SAC Meeting

  
Community Meeting

  
TAC/SAC Meeting

  
Planning Commission  
and City Council  
Meetings

**PROJECT SCHEDULE**

# **East/West Circulation Study Evaluation Criteria for Alternatives**

- Build on Vision and Goals of the Draft TSP and previously adopted Concept Plan.
- Identify and use factors that show differences among alternatives.
- Consider key criteria from the following categories:
  - Land use and community design
  - Mobility
  - Public utilities and services
  - Natural resources
  - Cost and implementation considerations

- Quantitative or Qualitative evaluation based on data – focus on the **differences** and consider “**order of magnitude**” effects.
- Scored based on assessment of:
  - Most positive effect (5 points)
  - Positive effect (4 points)
  - Neutral (3 points)
  - Negative effect (2 points)
  - Most negative effect (1 point)
- Total scores and compare alternatives.
- Primary objective is to identify the key multimodal east/west corridors.

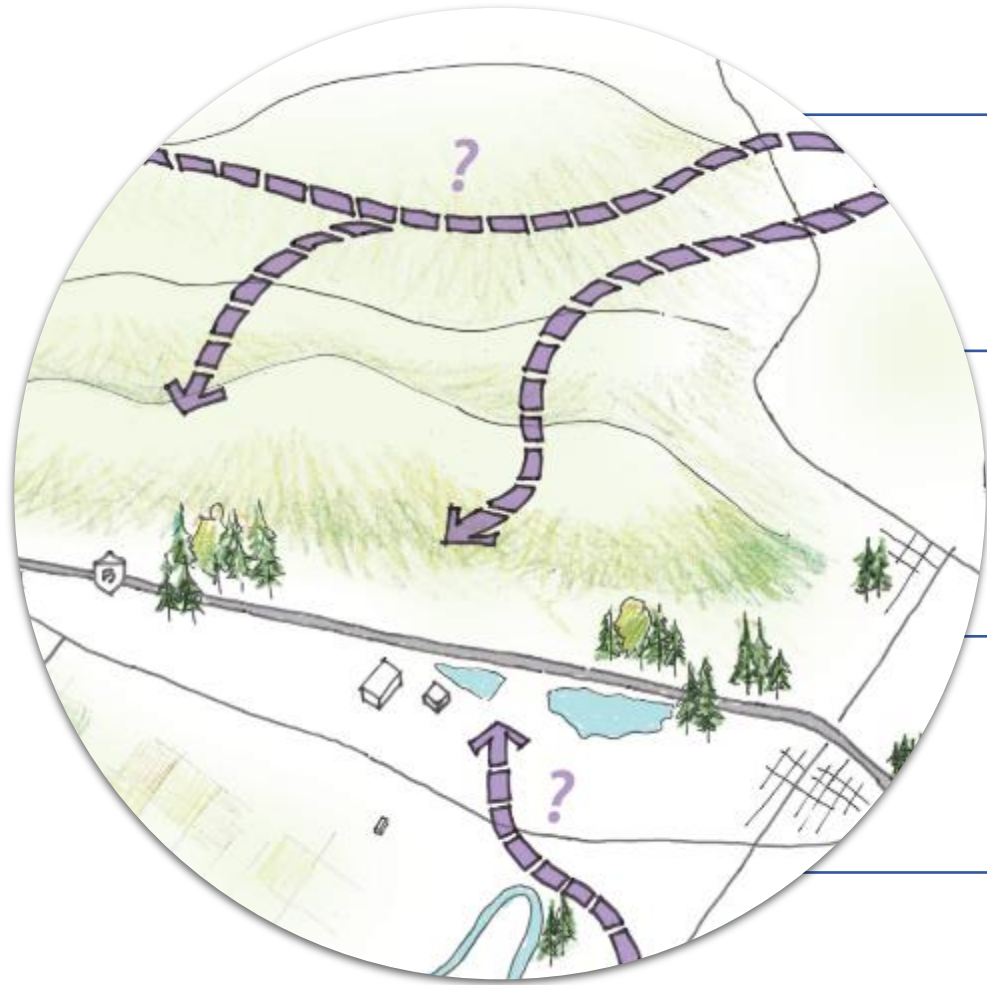
| Impact Categories/Criteria  | Alternative 1   | Alternative 2 | Alternative 3 |
|---|---|---------------|---------------|
|   | <Insert performance score on scale of 1 to 5 with 5 being highest benefit/least impact> |               |               |
| <u>Land Use/Community Design</u>  | 0   | 0             | 0             |
| - Support planned land use patterns   |   |               |               |
| - Existing neighborhood cohesion  |   |               |               |
| - Minimize splitting existing parcels   |   |               |               |
| - Serves those with greatest transportation needs and least resources   |   |               |               |
| - Impacts to disadvantaged or marginalized population groups  |   |               |               |
| - Historic/cultural impacts   |   |               |               |
| - Effect on quality of access to and impacts on recreational sites  |   |               |               |
| <u>Mobility</u>   | 0   | 0             | 0             |
| - Quality of bike/ped connections   |   |               |               |
| - Connectivity/out of direction travel  |   |               |               |
| - Level of service/delays   |   |               |               |
| - Travel times/VMT effects  |   |               |               |
| - Ability to meet spacing standards/ block size goals/limit on cul-de-sacs  |   |               |               |
| - Transit supportive  |   |               |               |
| - Provides one continuous connection from Town Center to existing city  |   |               |               |
| - Supports providing a seamless connection to existing/planned infrastructure in existing King City and surrounding communities |   |               |               |
| <u>Public Utilities and Services</u>  | 0   | 0             | 0             |
| - Stormwater and water quality impacts  |   |               |               |
| - Effect on steep slopes and erosion potential  |   |               |               |
| - Accommodation of emergency services, transit and school bus routing   |   |               |               |
| - Effect on public utilities such as water, sewer, gas, etc.  |   |               |               |
| <u>Natural Resources</u>  | 0   | 0             | 0             |
| - Wetland impacts   |   |               |               |
| - Impacts to streams and riparian areas   |   |               |               |
| - Impacts to upland habitat   |   |               |               |
| - Impacts to wildlife corridors   |   |               |               |
| <u>Cost and Implementation</u>  | 0   | 0             | 0             |
| - Order of magnitude cost estimate  |   |               |               |
| - Potential for TDT or other public funding vs developer funding  |   |               |               |
| - Order of magnitude construction and O&M cost estimates for public utilities   |   |               |               |
| - Effects of expected transportation system phasing   |   |               |               |
| <b>TOTAL SCORE</b>  | <b>0</b>  | <b>0</b>      | <b>0</b>      |

# APPLICATION AND SCORING OF EVALUATION CRITERIA

# **Comments and Questions about Evaluation Criteria and Process**



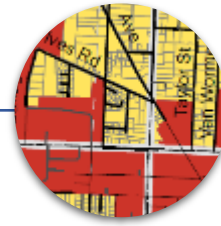
# Development of East/West Circulation Alternatives



Development-Driven Investments



Local/Regional Transportation Access and Connections



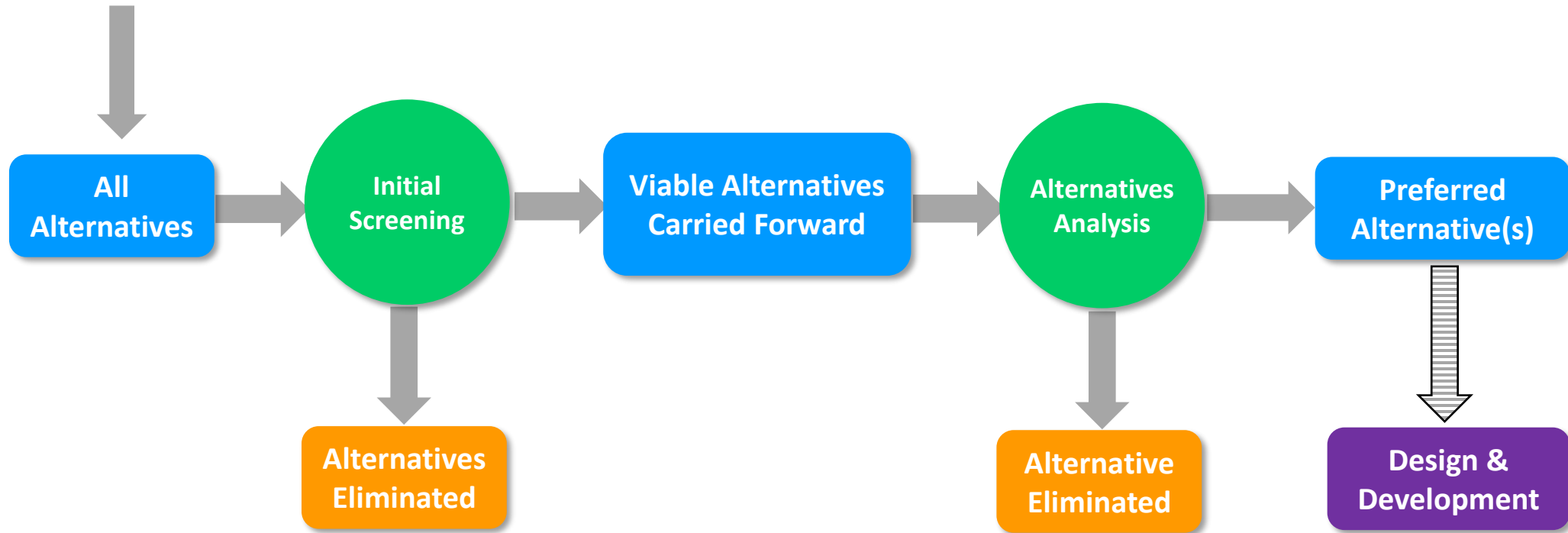
Built & Natural Environmental Considerations



Infrastructure Requirements

# CONSIDERATIONS IN DEVELOPING A NEW TRANSPORTATION SYSTEM

**Public and Stakeholder Engagement  
To Define East/West Alternatives and  
Connections to Existing City**

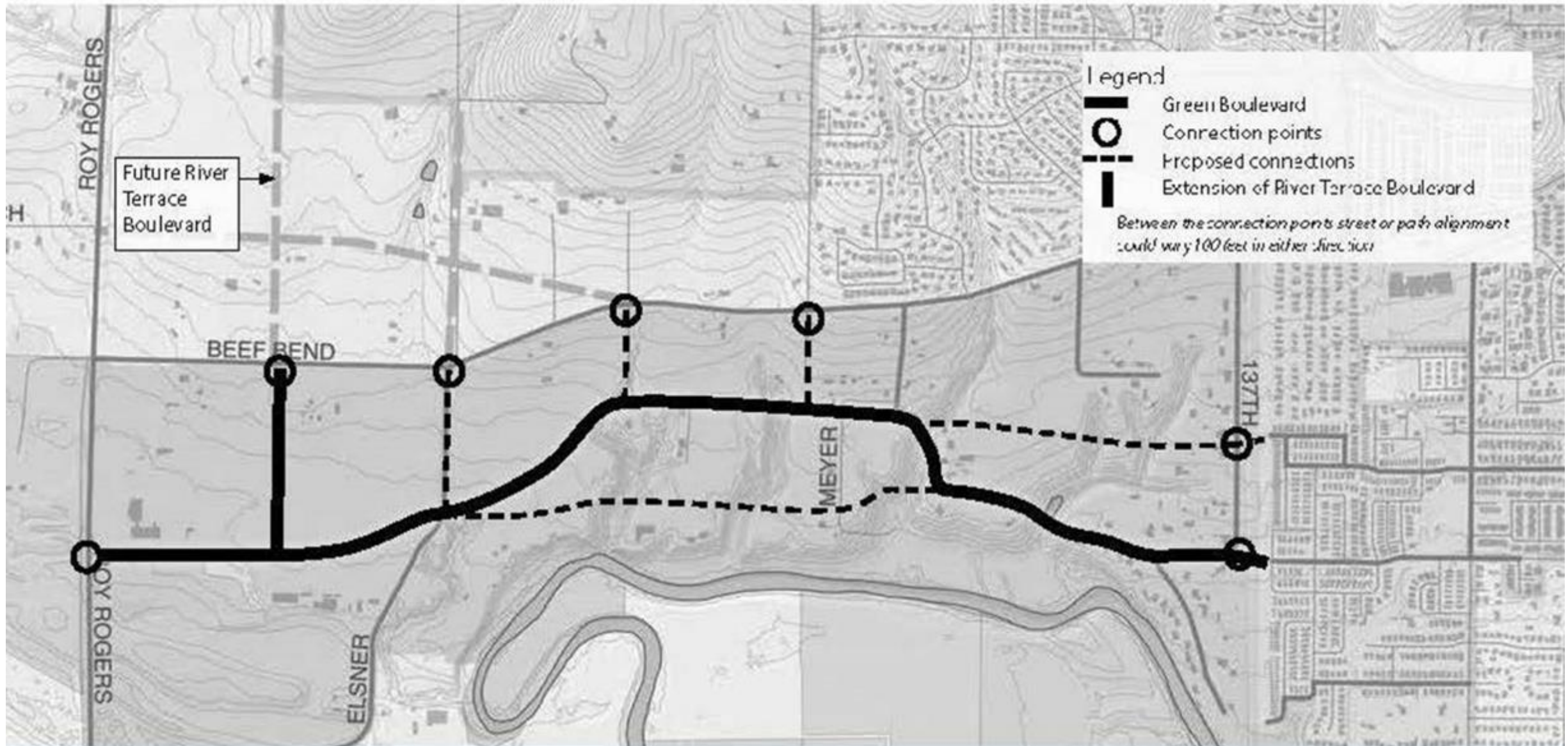


**Apply Evaluation Criteria that speak to Kingston Terrace Development Goals**

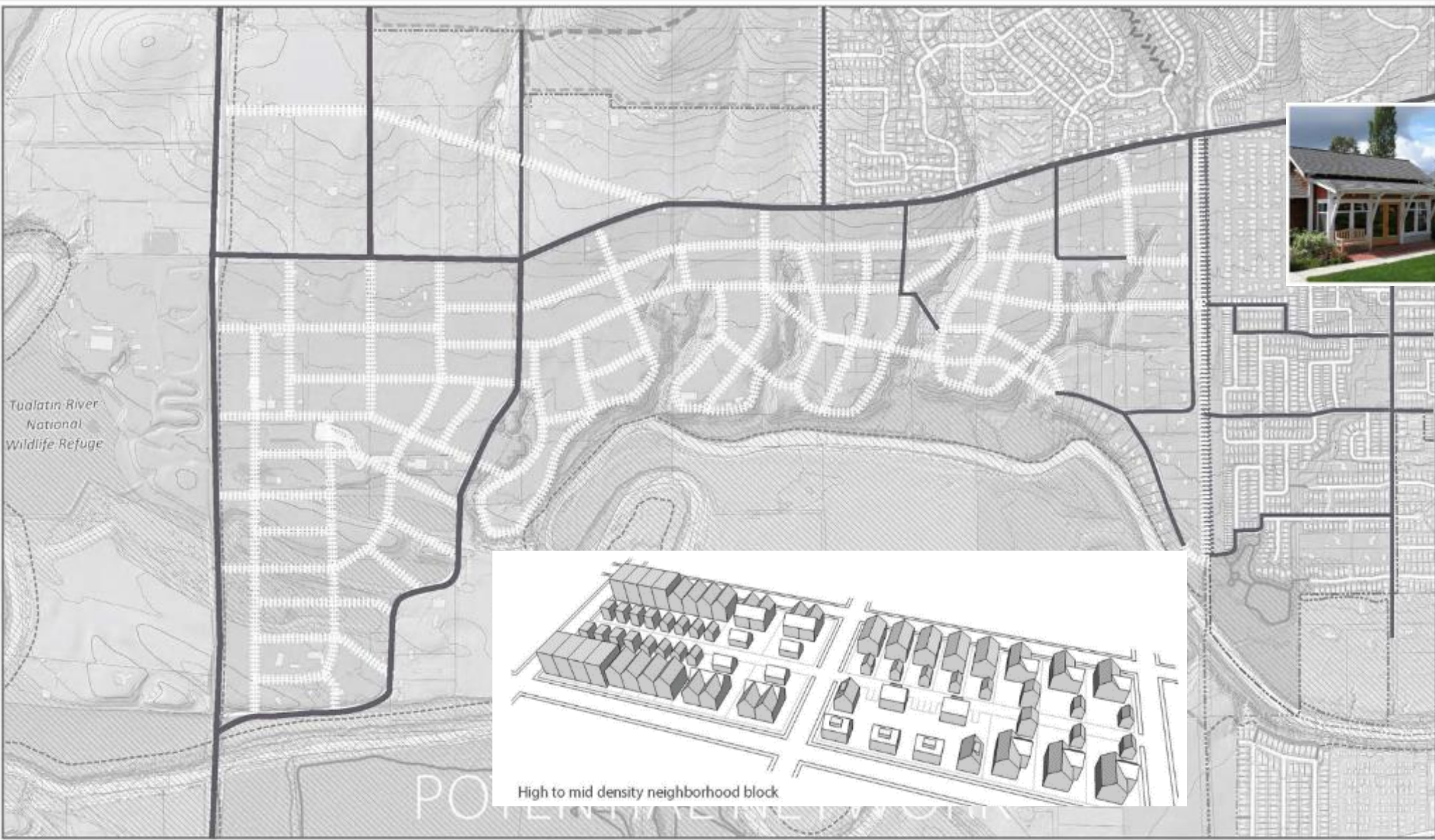
QUALITATIVE

QUANTITATIVE

**DEVELOPMENT AND EVALUATION OF ALTERNATIVES**



## CONCEPT PLAN – BACKBONE MOBILITY SYSTEM

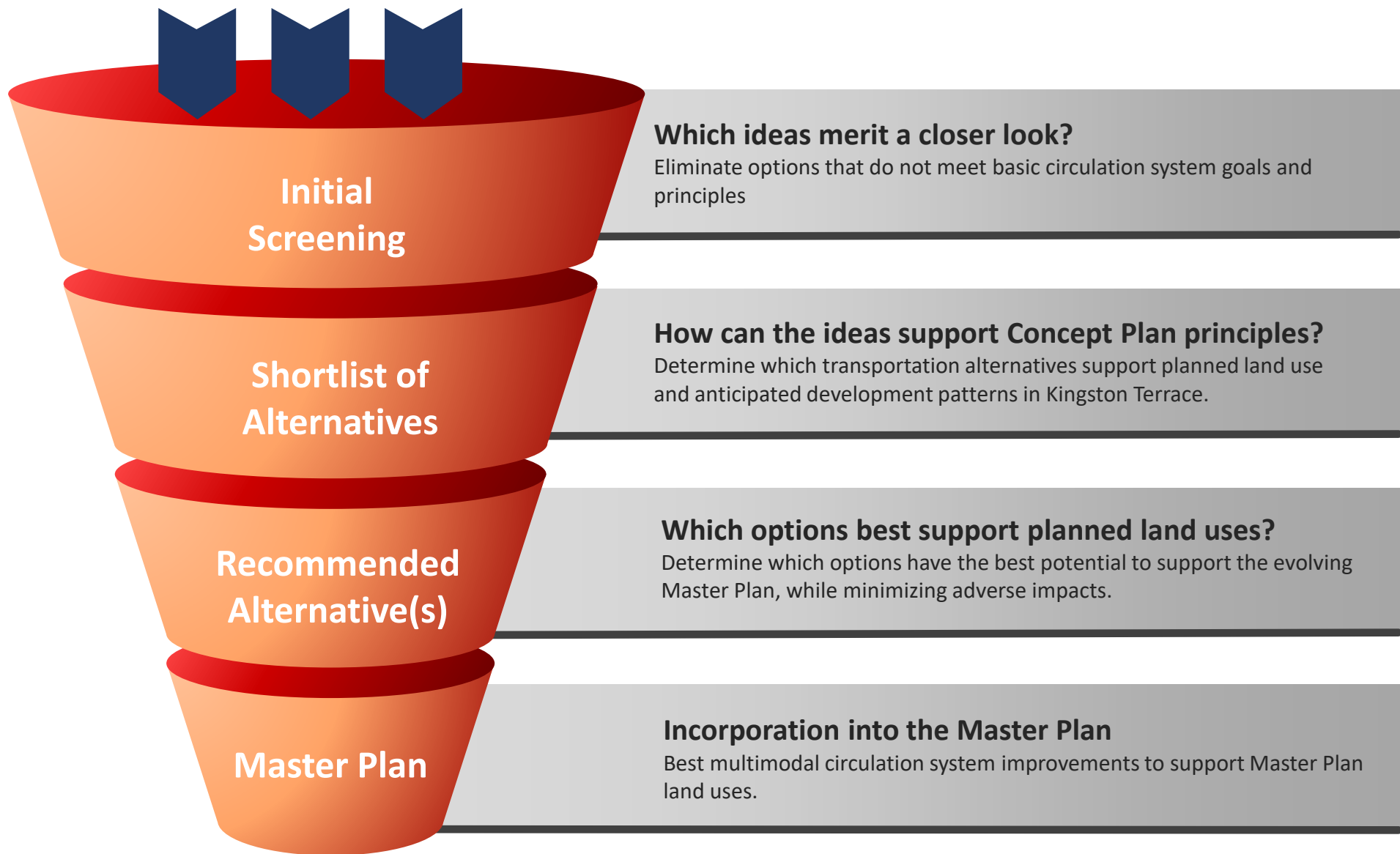


**CONCEPT PLAN – STREET SYSTEM THAT SUPPORTS THE LAND USES**

- Support Concept Plan land uses and urban design structure in principle including a lot of connections to accommodate bike/ped travel.
- Integrate King City by providing at least one continuous, multimodal connection through to serve community traffic.
- Ideally provide more than one east/west alignment to spread out the traffic and provide convenient walking and bicycling routes.
- Reduce Vehicle Miles of Travel and enhance sustainability.
- Work with topography and avoid high value natural resources.
- Accommodate needs of public utilities, particularly gravity-fed sewer.

## **EAST/WEST CIRCULATION SYSTEM PRINCIPLES**

# **East/West Transportation Corridor Ideas and Initial Screening**



# Kingston Terrace East/West Corridor Screening Process

Moving from universe of ideas to a preferred approach



Initial qualitative screening using high-level criteria:

- Consistency with Concept Plan principles (connectivity, encourage bike/pedestrian and other multimodal travel, support land use patterns, etc.)
- Multiple east/west alignments to spread out the traffic.
- Separation from Beef Bend Road so no one facility carries the full traffic load.
- Work with topography and avoid high value natural resources.
- Accommodate needs of public utilities, particularly gravity-fed sewer.

Identify range of alternatives for more in-depth analysis.

**REFINE EAST/WEST CORRIDOR ALTERNATIVES**

## Observations:

- Northerly alignment meshes with some of the planned circulation system but is insufficient on its own:
  - Doesn't connect to existing city
  - Would not provide cross-circulation past ravines
- Southerly alignment connects to city but also crosses numerous ravines

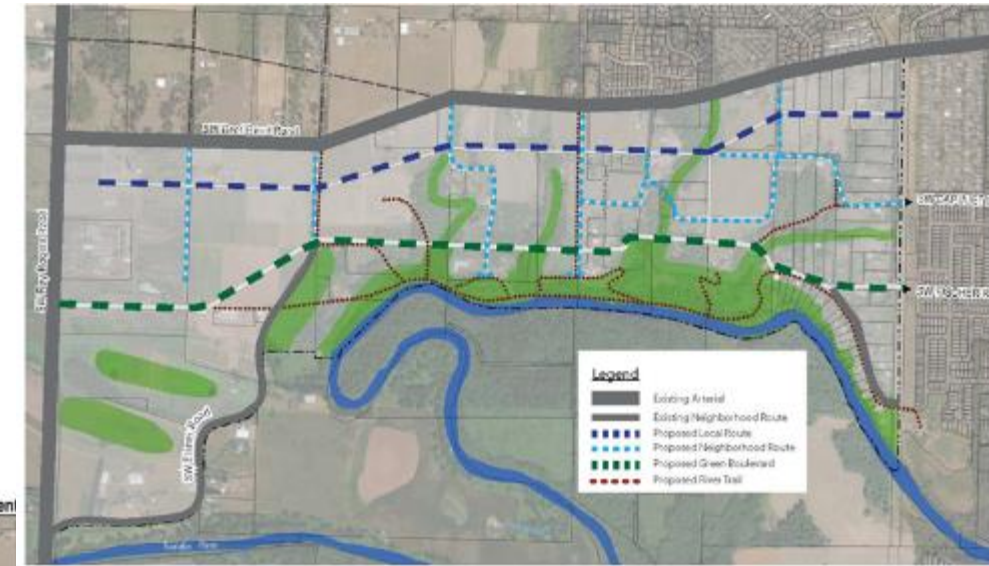
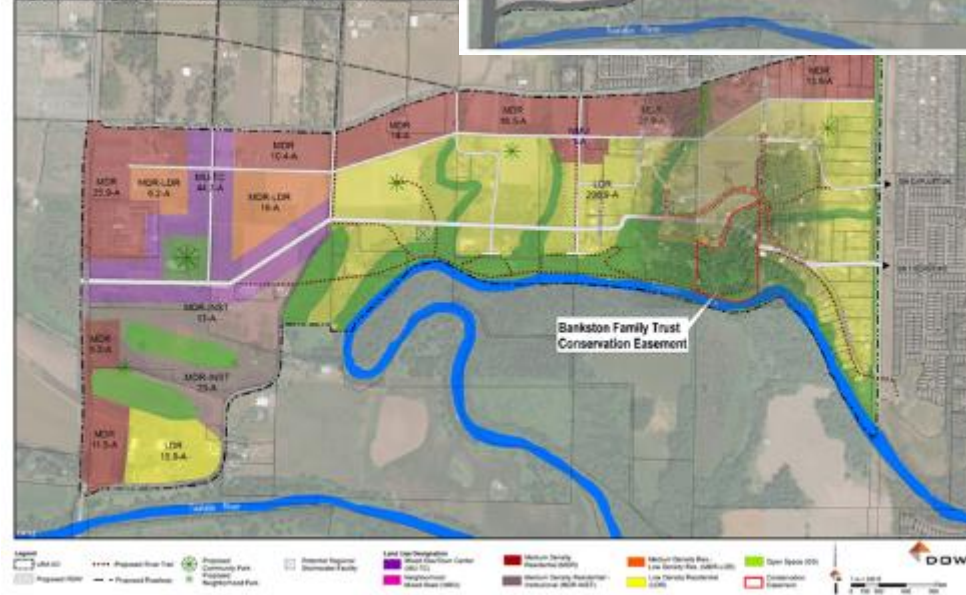


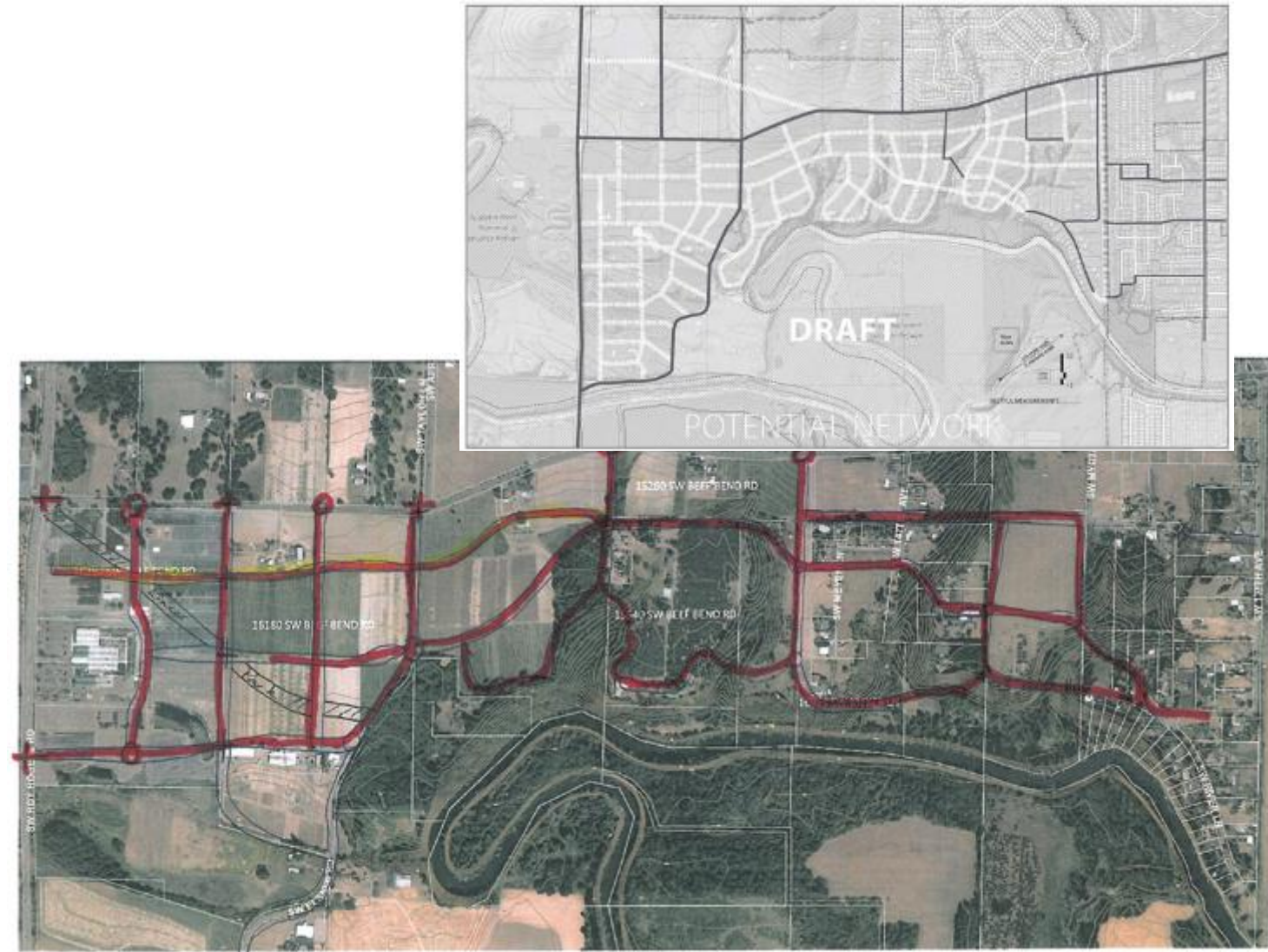
Figure 1. King City Concept Plan with Conservation Easement



**VARIATIONS ON CONCEPT PLAN STREETS**

## Observations:

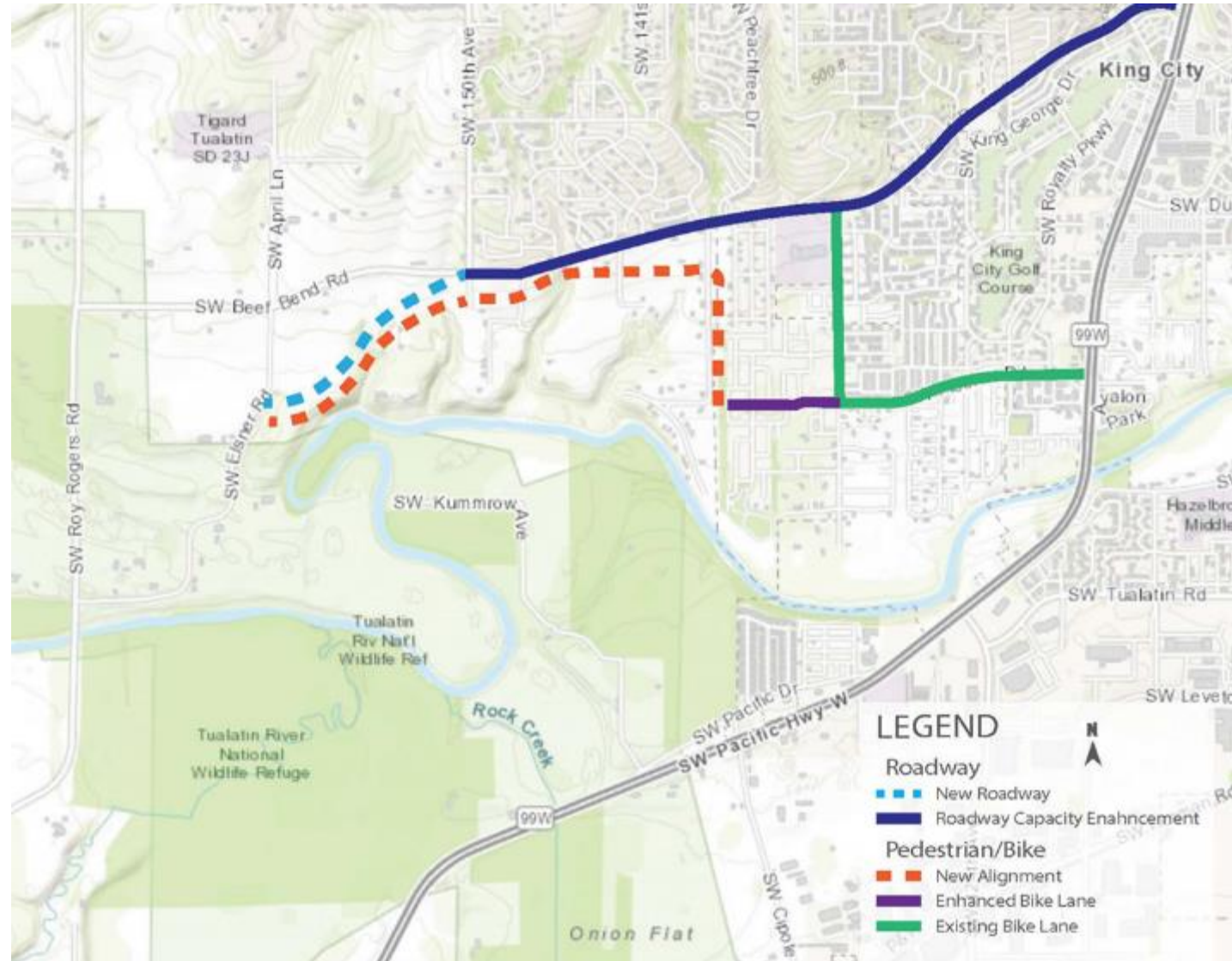
- Provides good coverage of the planning area.
- Attempts to avoid steepest parts of some ravines.
- Connects to existing city collector street but offers no other connections.
- Modifies Concept Plan street system.



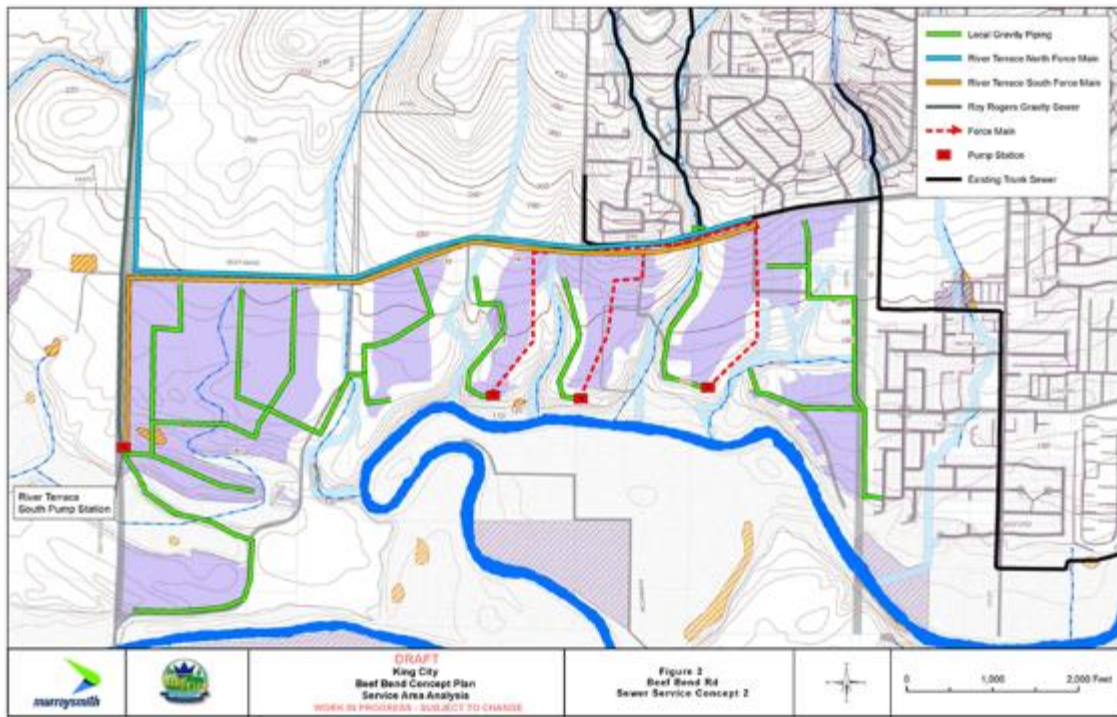
**VARIATIONS ON CONCEPT PLAN STREETS**

## Observations:

- No functional relief of volumes on Beef Bend Road, may require widening.
- Would result in long cul-de-sacs to serve areas between ravines.
- A lot of out-of-direction travel to get to development.
- Avoids high value natural resource areas and ravines.

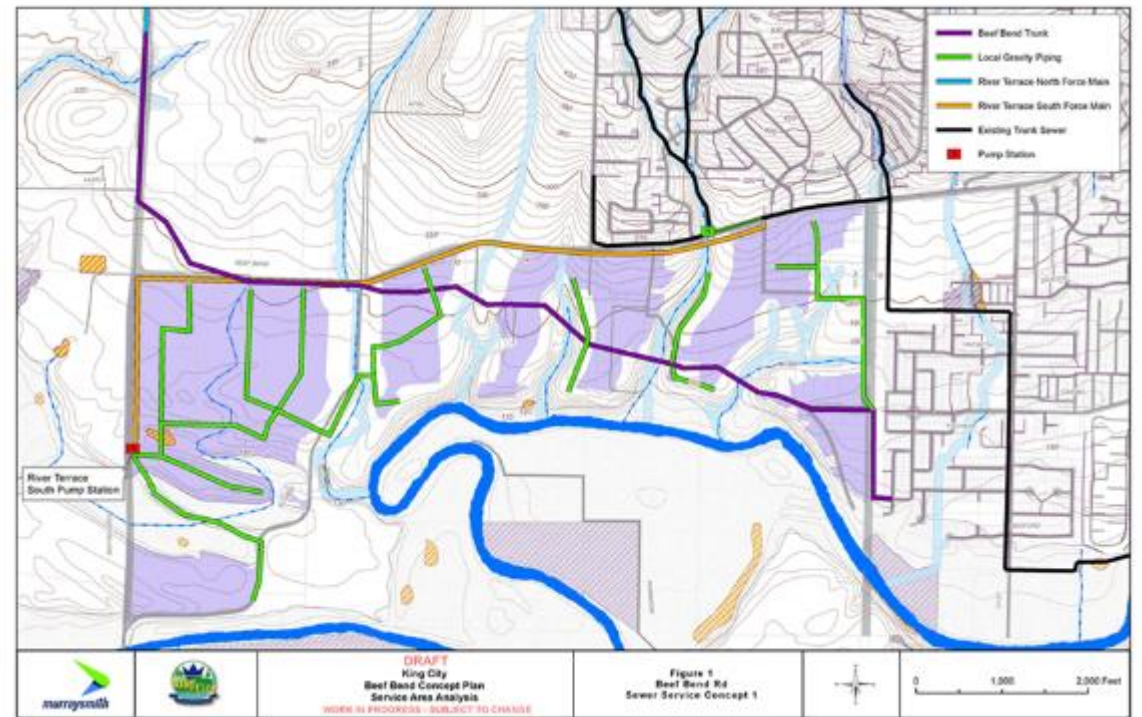


## VARIATION ON CONCEPT PLAN STREETS - Community Alternatives



Where street system is largely near Beef Bend Rd:

- Lacks east/west transportation corridor.
- Requires 4 pump stations with long-term O&M costs.
- Results in long cul-de-sacs requiring out-of-direction travel and auto dependency.

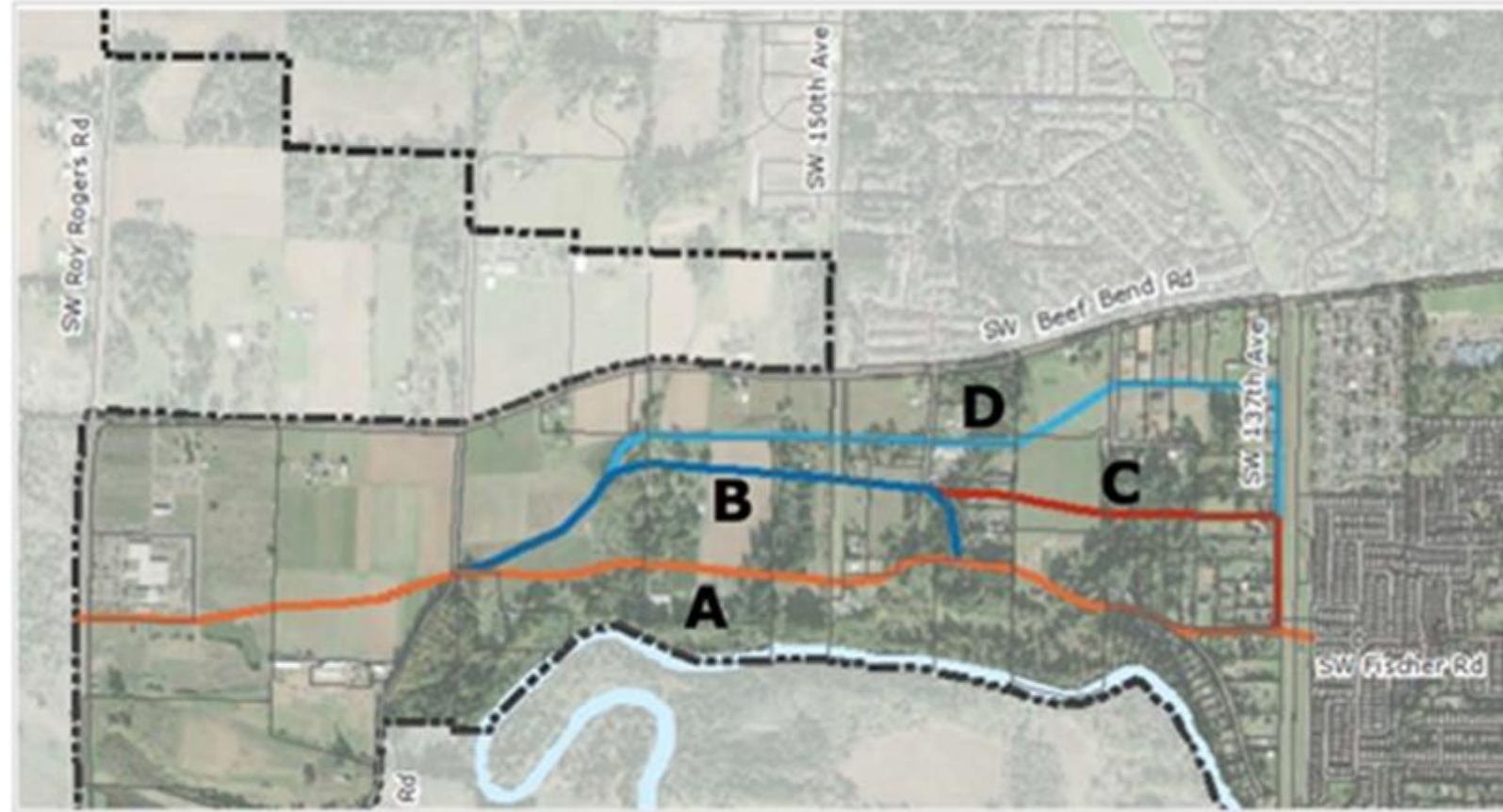


With internal street system:

- Follows terrain above 160-170' to permit gravity flow of sewage.
- Clean Water Services prefers approach to reduce long-term costs of pump stations.
- Provides connectivity through the study area.

## EFFECT OF SEWER ALIGNMENT ALTERNATIVES

- TSP considered earlier work and suggests offering northern, middle and southern alignments with connections to city.
- More than one option could be chosen.



**TSP ALTERNATIVES WITH MULTIPLE CONNECTIONS TO EXISTING CITY**

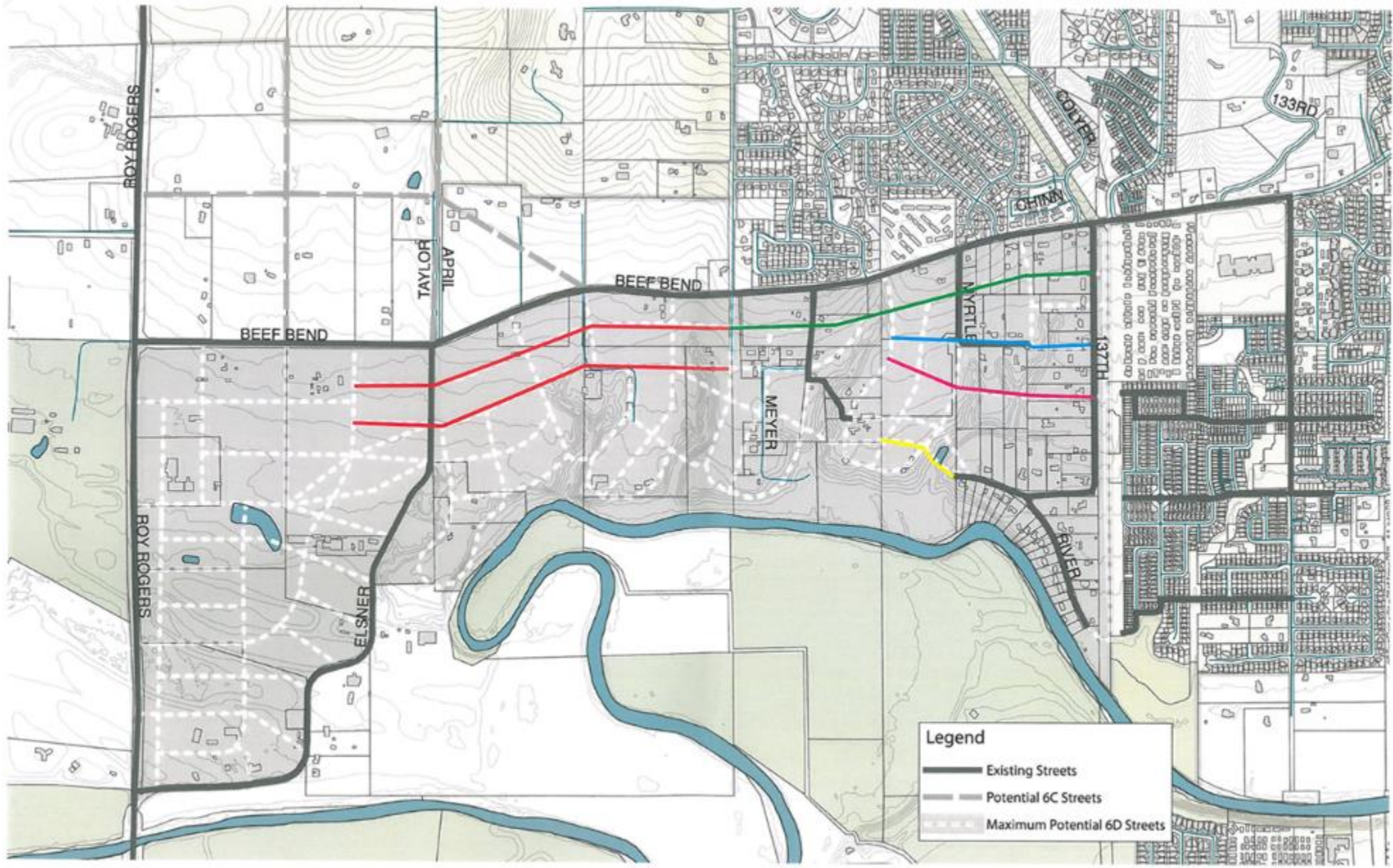
**Where does this lead us?**



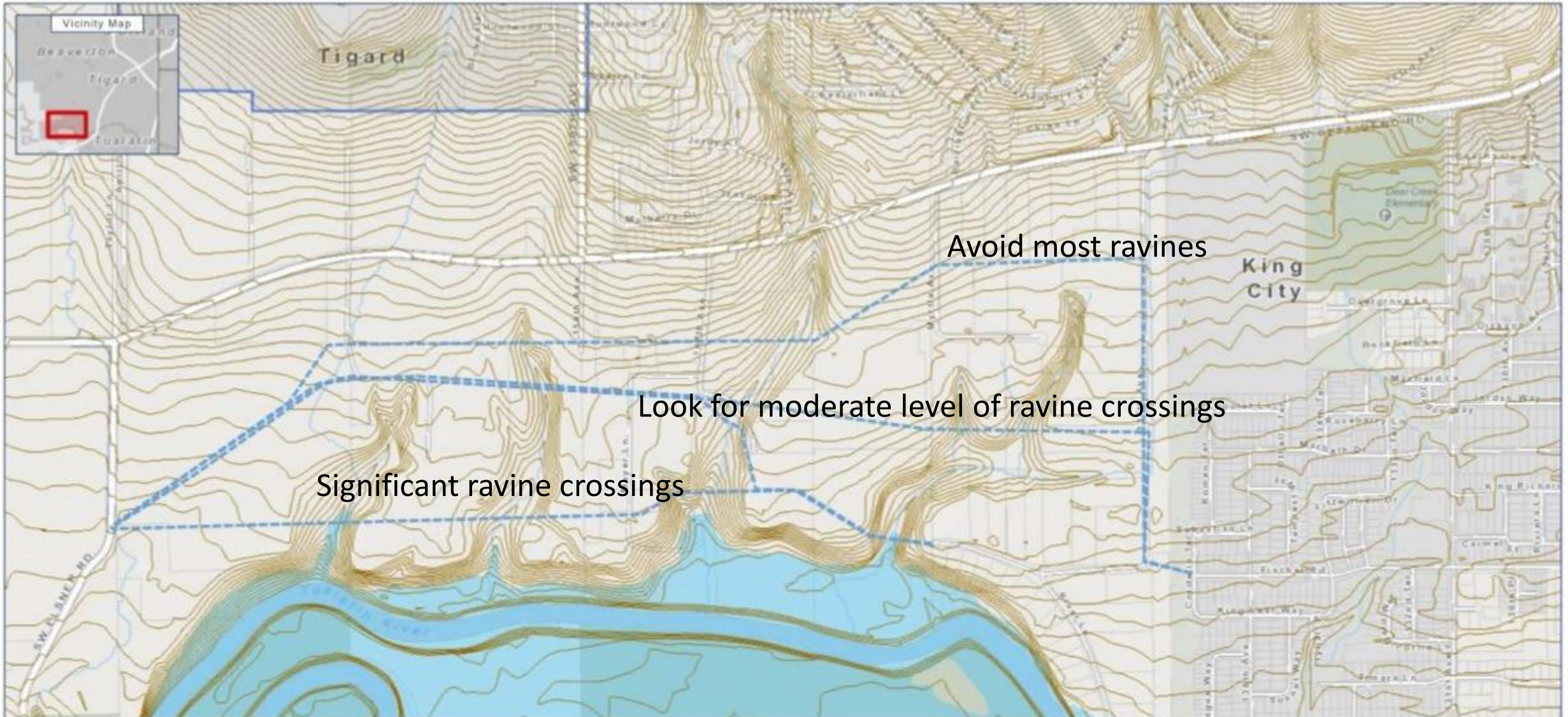
## Observations:

- Meshes with the planned street system.
- Offers redundancy and separation from Beef Bend Road.
- Ravine crossings/potential resource impacts.
- Connections to existing city.

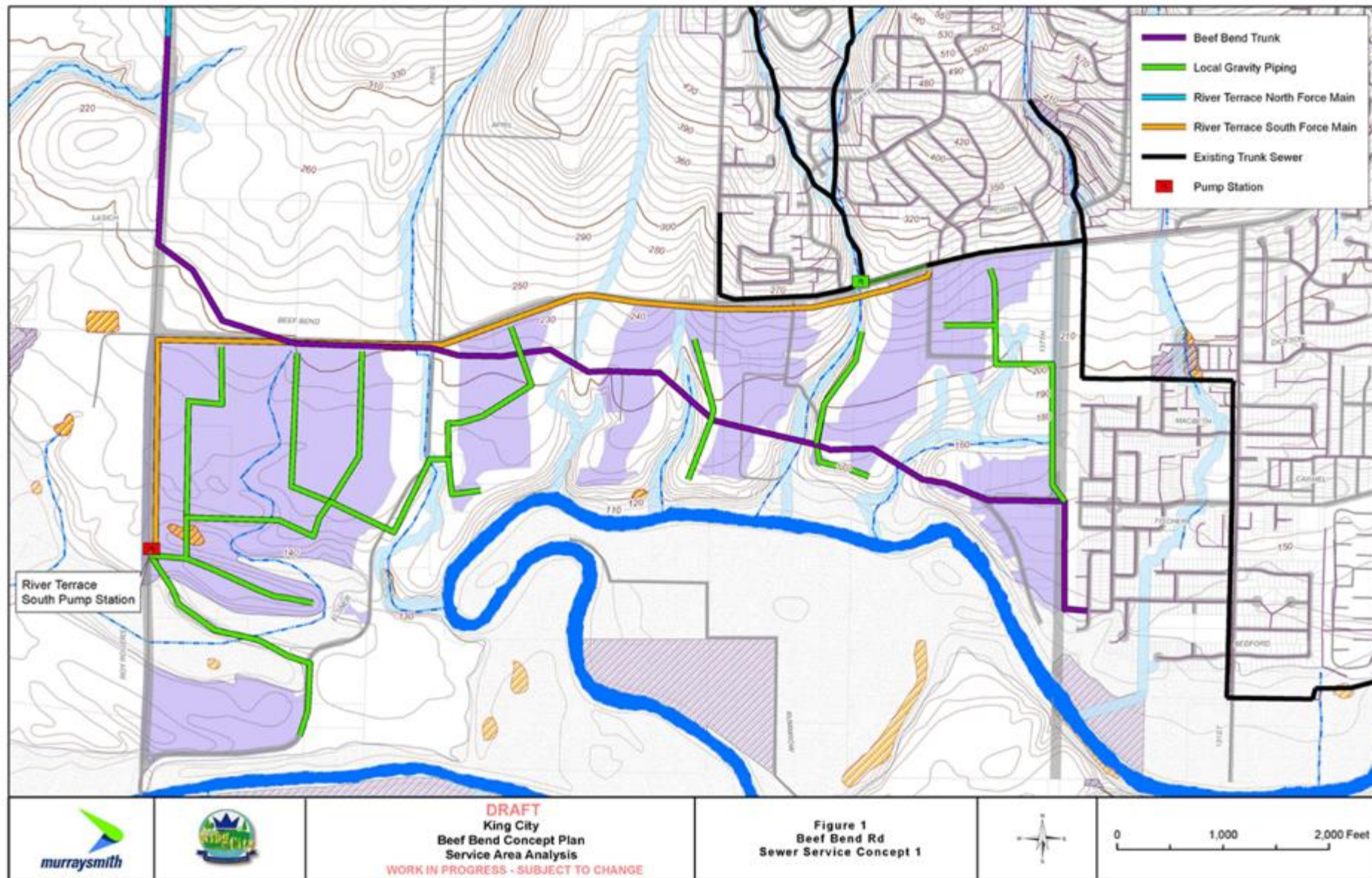




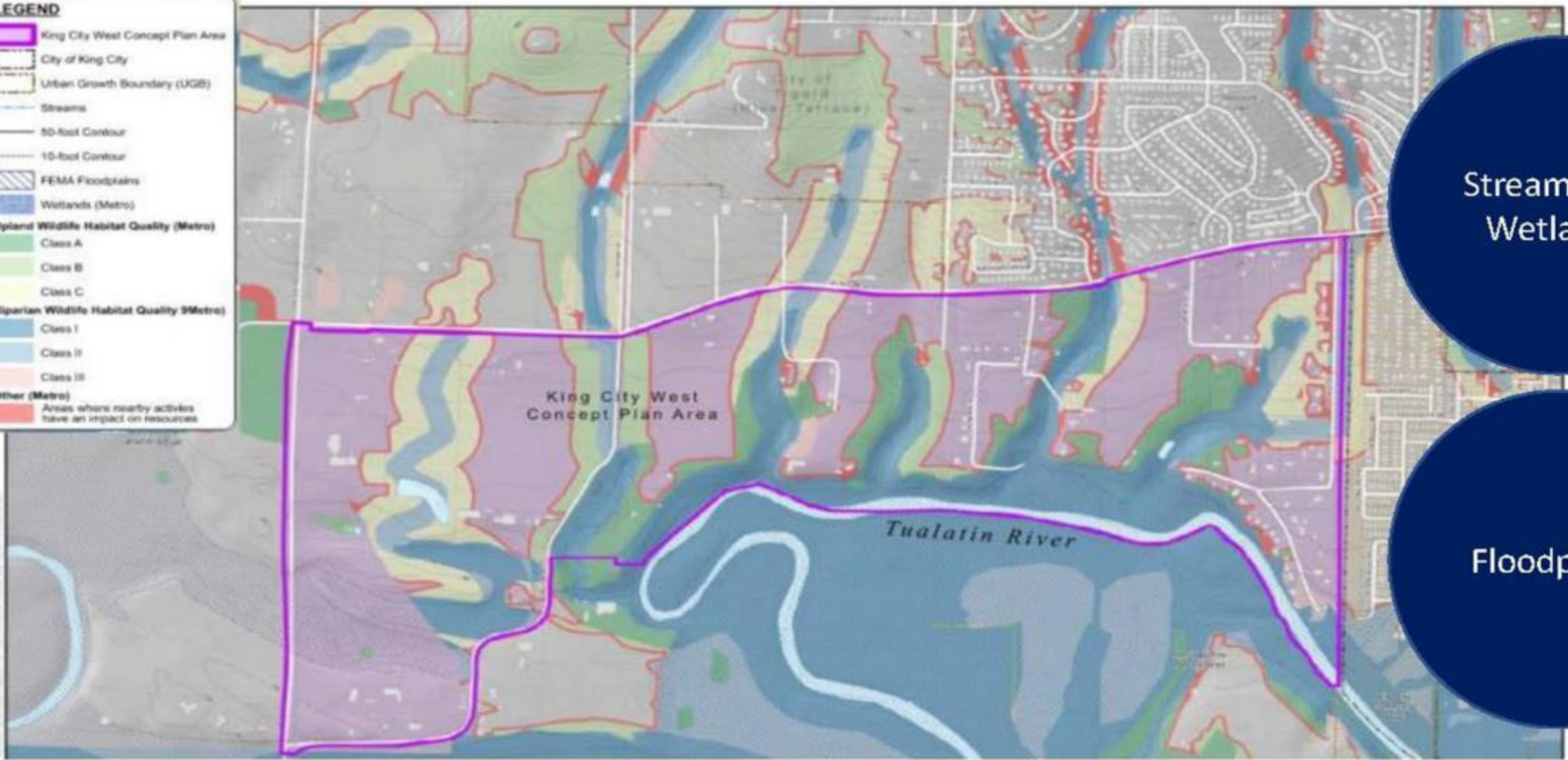
**WHERE THIS LEADS US – Spread Out Parallel Routes**



**WHERE THIS LEADS US – Consider Topography**



**WHERE THIS LEADS US – Integrate with Optimal Sanitary Sewer Alignment**



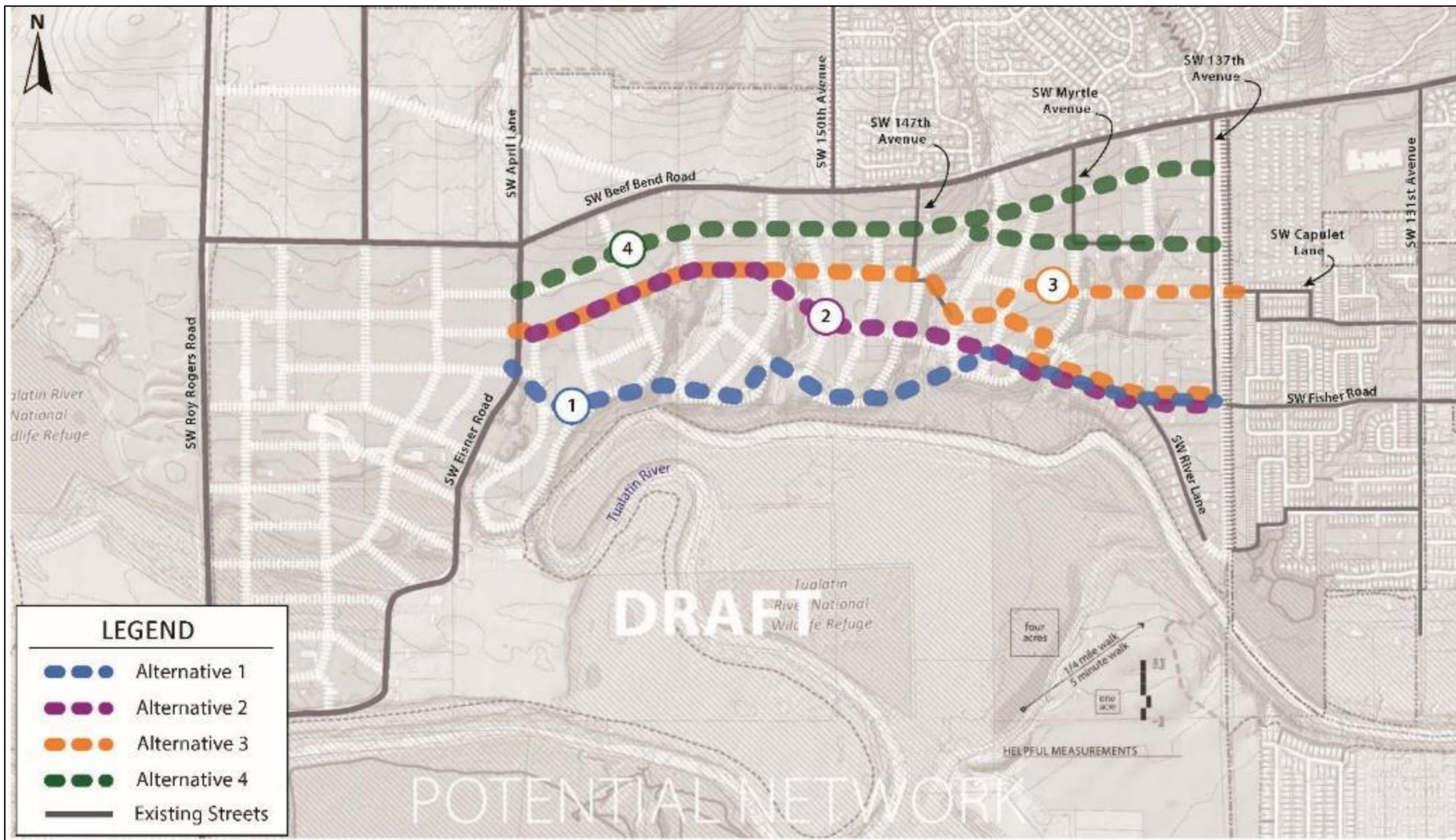
Streams and Wetlands

Floodplains

**WHERE THIS LEADS US - Consider Natural Resources**

- Conclusions from initial screening:
  - Consider all the inputs and wide array of earlier options from which we can choose the best options.
  - Identify 2-4 alternatives to carry forward to an analysis using research for each of the evaluation criteria.
  - Alignment of alternatives is not fixed. They only show a broader corridor of intention that will be further refined in the next study phase and through design/development phases.

**RECOMMENDED ALTERNATIVES TO BE CARRIED FORWARD**



**RECOMMENDED ALTERNATIVES TO BE CARRIED FORWARD**



Rural Street:  
Eastern Areas



Neighborhood Route:  
Central to Western  
Kingston Terrace

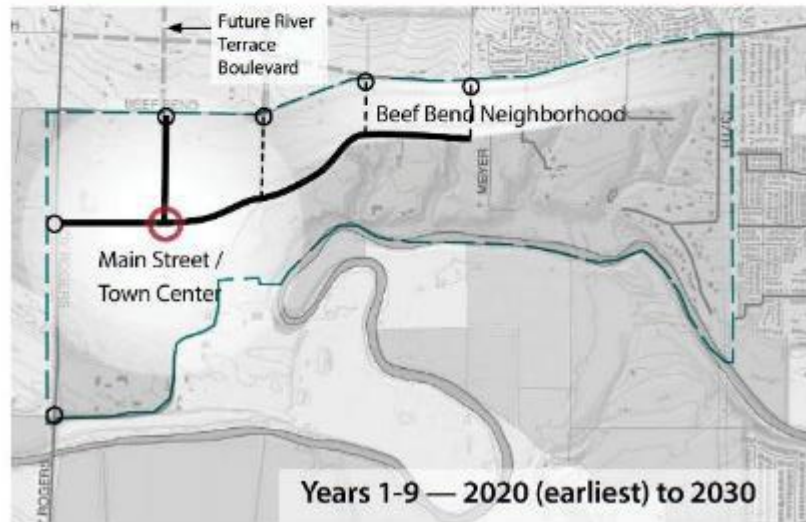
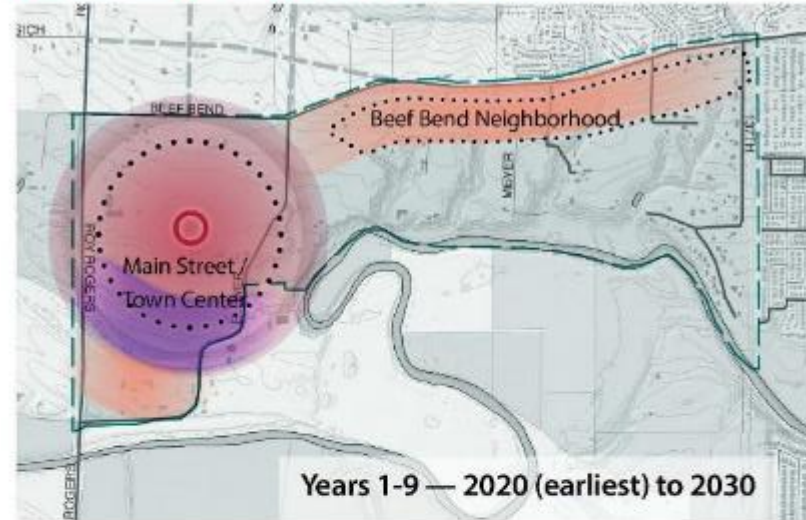


Neighborhood Route:  
Eastern Kingston  
Terrace

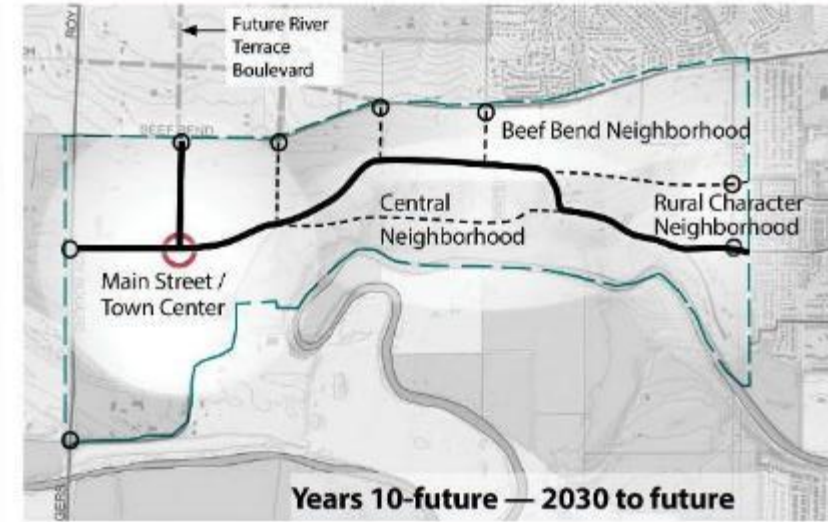
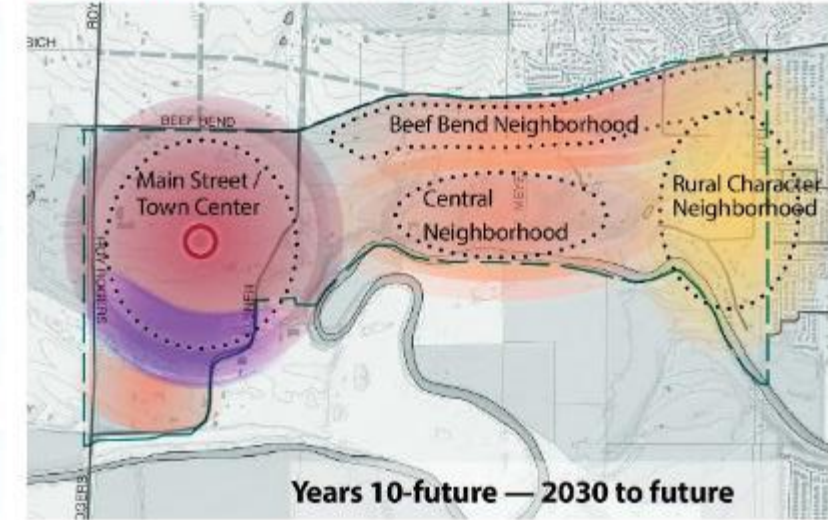
## ENVISIONED STREET CHARACTER

- Western portion of the plan area has larger parcels and less ownership fragmentation.
- Western portion is likely to see larger scale development earlier than the central or eastern portions.
- Will happen as fast as property owners act.

#### PHASE ONE DEVELOPMENT PROGRAM



#### PHASE TWO DEVELOPMENT POTENTIAL



**TIMING AND PHASING (From the Concept Plan – to be Updated)**



# **Are these the Right Alternatives to Carry Forward into Analysis?**

# Next Steps

## Next Steps:

- Conduct analysis to identify preferred course(s) of action
- Next meeting (~July) to present analysis results and recommendations





**KINGSTON TERRACE EAST/WEST CIRCULATION  
STUDY | TAC MEETING #3**

April 5, 2022



