



City Council Meeting Schedule May 2018

May 1, 2018
Tuesday, 6:30 p.m.

REGULAR COUNCIL MEETING

May 8, 2018
Tuesday, 6:30 p.m.

WORKSHOP MEETING

1. Transportation Systems Plan
2. Upcoming Community Events
3. Open Negotiations Collective Bargaining

May 15, 2018
Tuesday, 6:30 p.m.

REGULAR COUNCIL MEETING

May 22, 2018
Tuesday, 6:30 p.m.

WORKSHOP MEETING

1. Legislative Update
2. Budget Calendar/Citizen Budget Survey
3. Video Taping Council Meetings

May 29, 2018
Tuesday, 6:30 p.m.

NO MEETING

To assure disabled persons the opportunity to participate in or benefit from City services, please provide twenty-four (24) hour advance notice for additional arrangements to reasonably accommodate special needs.

Please be advised that all Kennewick City Council Meetings are Audio Taped

May 2018
Updated 5/01/18

Council Workshop Coversheet



Agenda Item Number	1.	Meeting Date	05/08/2018
Agenda Item Type	Presentation		
Subject	Transportation System Plan Update		
Ordinance/Reso #		Contract #	
Project #		Permit #	
Department	Public Works		

Info Only	☒
Policy Review	☐
Policy DevMnt	☐
Other	☐

Summary

The work on the Transportation System Plan (TSP) update is coming to a conclusion.

At this workshop, the consultant for the TSP, Transpo Group, will present the following information:

1. A list and map of proposed projects needed to maintain an acceptable Level of Service for transportation from now until 2040.
2. Costs to construct the list of projects
3. Revenues available for the projects.
4. The portion of the project costs attributable to new growth, that are eligible to be paid by Traffic Impact Fees (TIF).
5. Two options to split the City into different TIF districts.
6. Possible Traffic Impact Fees for each proposed TIF district, and a comparison of local/state/national TIFs.
7. A recommendation for new Traffic Impact Fees.

Through

Bruce Mills
May 01, 17:53:53 GMT-0700 2018

Dept Head Approval

Cary Roe
May 02, 14:18:57 GMT-0700 2018

City Mgr Approval

Marie Mosley
May 02, 20:36:15 GMT-0700 2018

Attachments:

DRAFT Transportation Plan
May 8 Workshop Presentation

CITY OF KENNEWICK

DRAFT 2040 TRANSPORTATION SYSTEM PLAN

Prepared for:
City of Kennewick



Prepared by:
Transpo Group



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1.17118.00
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Introduction to the Plan

The multimodal transportation system is integral to many facets of the City of Kennewick, including land use, economic development, tourism, and recreation. The City's 2040 Transportation Systems Plan is the background and companion document to the Transportation Element of the City's Comprehensive Plan. The Transportation Element establishes the City's goals and policies for developing the transportation system within the City. Both the Transportation Element and Transportation Systems Plan provide a long-range vision for the City's transportation system to guide City decision makers, staff, advisory bodies, and citizens on transportation priorities and projects over the next 20 years.

The Transportation System Plan coordinates and plans for the development of a balanced, multimodal transportation system by recognizing the regional nature of the transportation system and the need for continuing interagency coordination. The Transportation Systems Plan is organized into seven chapters:

1. Executive Summary
2. Background and Planning Context
3. Existing Transportation System
4. Travel Forecasts and Alternatives Evaluation
5. Transportation Systems Plan
6. Finance Program
7. Implementation Plan

The Transportation Systems Plan is intended to serve as a guide for making transportation decisions to address both short and long term needs. To meet Growth Management Act (GMA) requirements, the Transportation Systems Plan must identify existing transportation system characteristics, establish standards for levels of service, and identify existing and future deficiencies based on land use growth projections.

The Transportation Systems Plan identifies roadway mobility and accessibility needs, improvements necessary to enhance safety, bicycle and pedestrian travel characteristics, and transit service.

The Transportation Systems Plan should be a document that is regularly reviewed and updated periodically to reflect and serve as a decision-making tool for transportation policy, planning, and construction efforts within the City. This should be accompanied by a regular review and update to the Municipal Code to ensure that the goals and projects contained in the Transportation Systems Plan are implemented.

[Chapter 1 Photo Page]

1. EXECUTIVE SUMMARY

[Chapter 2 Photo Page]

2. BACKGROUND AND PLANNING CONTEXT

2 Background and Planning Context

Kennewick is uniquely situated within the Tri-City metropolitan area which has experienced some of Washington's highest population growth. In full recognition of emerging growth and economic development forces in Kennewick, the City has undertaken significant effort to revise and update its Transportation Systems Plan.

2.1 Vision for Kennewick's Transportation System

Since 2005 the City has completed several Plan components as either updates or amendments, each predicated on the City's Vision Statement for the community:

An exceptional quality of life, premier infrastructure, and sustainable vision make Kennewick an attractive place to live, do business and visit. Kennewick is welcoming, safe, family-friendly and features a variety of housing options, employment opportunities, and community activities and services. We are inclusive and value diversity, civic engagement and community partnerships. We encourage walkable and bikeable neighborhoods and convenient access throughout the city. Kennewick will continue to lead the way in creating a vibrant community and economy for generations to come.¹

The City has updated its Comprehensive Plan with an Urban Design Element with emphasis to enhance the public rights-of-way and improve vehicular and pedestrian circulation, enhance the overall pedestrian environment through

streetscape, lighting and facility improvements, and encourage better connectivity to the waterfront recreation areas. The City has also developed its Concurrency development code in efforts to complete its comprehensive growth management plan. Further refinements to its development code and revisions to the City's street design standards have provided greater emphasis on pedestrian and bicycle system features, and improved design linkages between land use and public transportation. For consistency with other Plan elements and policy, the Transportation Element of the Comprehensive Plan is in need of updating.

Kennewick's transportation system is experiencing significant change. Emerging and proposed residential, commercial and work-place developments west of US 395 are expected to place significant pressure on the City's arterial street system. To address the combined impacts of new development, redevelopment and major transportation improvements, a comprehensive evaluation of the detailed operations for all aspects of the transportation system is needed, including motor vehicle, transit, pedestrian, bicycle and freight mobility (trucking and rail).

This City's Vision is embodied in the City's first comprehensive Transportation Systems Plan, a plan that seeks to balance the community's desire to encourage orderly growth and for a strong local economy, while building on the City's history and heritage. The City of Kennewick undertook this transportation systems planning effort to identify and adopt a comprehensive set of policies and improvement projects to effectively manage growth throughout greater Kennewick. This city-wide planning effort focused on all modes of transportation, and included a significant agency coordination program.

¹ 2017-2037 City of Kennewick Comprehensive Plan

2.1.1 Background

The City of Kennewick is rich in history, including original use by early Native American tribes as a gathering place for winter quartering and as a convenient area for the trading of goods and food. Kennewick was incorporated in 1904, and the Northern Pacific Railroad (later to become the Burlington Northern Santa Fe railroad) expanded to include the Kennewick area. With the railroad Kennewick became a significant shipping depot for agricultural products destined for national markets. At the onset of World War II the Hanford Project brought significant change to Kennewick, with increased residential development to house those Hanford government employees not already fitted in the newly formed City of Richland. Kennewick has since grown to become the largest community of the Tri-Cities.

Between the 1960's and 1980's, and coupled with the development of the interstate freeway system and new Columbia River bridges, the greater Tri-City area has experienced significant suburbanization. In the last ten years Kennewick has experienced refocused development to the south and west, and revitalized development interest in the downtown core and industrial areas.

The Kennewick transportation system has evolved in the past century to meet the needs of the area. Today it is a mix of traditional grid network in and surrounding the core downtown area, connected by a series of north-south and east-west arterial and collector street routes to surrounding residential neighborhoods, commercial and employment centers. Many of the Kennewick's streets are lined with sidewalks serving nearby business, commercial and residential uses. Some neighborhoods include streets with well-connected sidewalks; others have limited and often disconnected sidewalks.

There are a number of major streets which include on-street bicycle lanes for adults and commuter cyclists. These routes are partially connected, as there are gaps in the system for

cyclists to access the various sections of Kennewick. For recreational cyclists, the Columbia riverfront shared-use path, Sacajawea Heritage Trail, offers excellent service for recreational cyclists and pedestrians alike. The challenge exists for Kennewick to locate and build a system of connected shared-use paths that provide utilitarian service and access to the Sacajawea Heritage Trail. The completion of new shared-use paths along the existing canal system will provide new connections for expanded circulation and access for a variety of pedestrian and bicycle travelers throughout the Kennewick urban area.

What were once largely transportation assets, the Burlington Northern Santa Fe (BNSF) railroad has become, in part, barriers to local traffic circulation and access between Kennewick's downtown, surrounding neighborhoods and the riverfront and port areas. The recent completion of the Columbia Center Boulevard grade separation project greatly enhances access between Kennewick activity centers and helps eliminate some of the barriers that rail operations present. The TSP identifies conceptual, grade-separation connectors of the BNSF at Edison Street and in the downtown Kennewick area that will better link greater Kennewick with a variety of waterfront development opportunities.

Through Ben Franklin Transit's Three Rivers, Huntington Street and Dayton Street transit centers, BFT provides linkages between Kennewick's many neighborhoods, civic and commercial centers and neighboring cities via a number of local bus lines. Throughout its history BFT has expanded its geographic coverage and frequency to meet the area's growing needs.

2.1.2 Need and Purpose for the Plan

Transportation systems plans are typically composed of policy and facility plans to guide long-term development of a multi-modal transportation system. The need for the Kennewick Transportation Systems Plan (TSP) is twofold. First, to effectively manage growth, the City needs to

complete a comprehensive examination of traffic operations and transportation system impact analysis of pending development in the Southridge and other areas. Second, the City also needs to complete a long-term plan with projects and policies that integrate all modes of travel to fulfill the City's goals and vision of vibrant neighborhoods, orderly growth and a strong economy.

Until this plan was prepared, a comprehensive and detailed examination of transportation impacts of local development has not been fully evaluated. Generally speaking, Kennewick's current street system is designed to meet current, average traffic levels. Potential capacity and operations improvements are not yet fully identified to address the general impacts of growth, both within Kennewick and throughout the Tri-City urban area. This plan looked at the cumulative impacts of these developments and established strategies and implementation plans to most cost-effectively address the various transportation needs of the area.

The evaluation of current and future traffic conditions in the Kennewick TSP was conducted while considering a cohesive multimodal system, helping the City validate the ability of the transportation system to support the City's vision and identify steps or measures needed to implement the vision. Once completed, the City can then manage growth by accurately and equitably conditioning individual developments for specific transportation system improvements. The plan for these improvements will be implemented over the next 20 years, and will be used to supplement and periodically update the City's Six-Year Transportation Improvement Program (TIP).

The Kennewick TSP identifies projects, policies and strategies necessary to support the land use plan, and recommends amendments to the policies of the Kennewick Comprehensive Plan. It is also a principal component of the City's growth management policy. Recommended strategies include the possible timing and sequencing of needed street,

traffic control, pedestrian, bicycle and transit-related improvements.

2.2 Planning Process

The development of Kennewick's 2040 Transportation Systems Plan was approved by the City Council to provide an update to the 2005 update to the *City of Kennewick Transportation Systems Plan*. The Kennewick City Council adopted its previous Transportation Plan in 2008, and was prepared to meet the requirements of GMA. The purpose of the 2040 Transportation Systems Plan is to provide an update to the existing plan by identifying and evaluating the transportation improvement plans for the City through the 2025 and 2040 horizon years.

2.2.1 Study Area

The Kennewick TSP study area is generally bounded by the Columbia River on the north and east, the highland bluffs south of 47th Street to the south, and the City of Richland on the west.

2.2.2 Study Area Analysis

Before transportation system improvements can be planned for Kennewick, its current and future travel demands must be assessed. Those assessments have been made based on the City's Comprehensive Plan. Chapter 3 Existing Transportation System of this document includes a full description of the current transportation conditions. Chapter 4 Forecast and Alternatives Evaluation contains future development plans and travel conditions, and the various transportation system alternatives tested to meet the needs for Kennewick's street system. This effort was accomplished through use of BFCOG's regional travel demand model.

2.3 Goals, Objectives and Implementation Strategies

Contained within the Kennewick Comprehensive Plan is a set of comprehensive goals, objectives and implementation strategies that guide how transportation system improvements are to be made in the Kennewick area over the next 20 years. These policies provide a comprehensive framework for adoption of more detailed City regulations and requirements that relate to development, facility design standards as contained in the TSP and other City documents. These policies constitute the foundation and parameters of how transportation planning decisions will be made by the City of Kennewick.

2.4 Individual TSP Sections

The Kennewick TSP is an assimilation of coordinated plan sections that deal specifically with each mode of travel, or aspect, of the entire transportation system. The Plan includes the following sections as documented in Chapter 5.

2.4.1 Street System

Identifies the needs of the entire street system, assigns each street a functional classification, and recommends planned street improvement projects and transportation system management projects and program of maximizing the capacity and safety of the existing street system through traffic engineering and applications of technology.

2.4.2 Pedestrian System

Identifies needed enhancements to the pedestrian system, including sidewalks, shared-use paths and amenities. It designates primary and secondary pedestrian routes, contains policies that encourage walking, and lists planned pedestrian infrastructure improvements.

2.4.3 Bicycle System

The Bicycle System section identifies bicycle system needs and contains policies that encourage bicycle use and safety. It designates streets as bicycle routes, and lists planned bicycle system improvements.

2.4.4 Transit and Transportation Demand Management System

The Transit and TDM section describes the City's role in supporting the transit system through infrastructure improvements, particularly pedestrian system enhancements and traffic control measures, and City land use policies and codes that help guide transit-supported land use developments. This section also contains policies that encourage and facilitate the use of carpools, vanpools, flexible work hours, telecommuting, and other alternative modes that reduce trips and decrease reliance on the single-occupant vehicle travel, especially for the commute trips.

2.4.5 Freight Mobility, Air and Water Transportation

Identifies the infrastructure needs for moving goods and services into, out of and through Kennewick. This chapter contains policies and planned improvements for designated truck routes serving the Kennewick urban area, and important air and water transportation facilities.

2.5 Financial Plan

Chapter 6 Financial Program identifies the financial resources needed to achieve the level of mobility outlined in the Kennewick TSP. New options to establish transportation impact fees are considered and evaluated as part of the examination of future funding needs, projected revenues from traditional sources, and unmet future needs. This chapter also contains policies that guide the City's funding strategy for providing transportation services.

2.6 Land Use and Transportation Planning

The Kennewick TSP has been developed to provide maximum, multi-modal mobility based on the currently adopted Comprehensive Plan. Land use and the transportation system have a cause and effect relationship. The type, density and design of developments place differing demands on the transportation system. The continued development in Kennewick as the center of local government, commerce and housing will serve as a good growth management tool for the City.

2.7 Plan Implementation

Chapter 7 summarizes the TSP plan implementation. The Kennewick TSP will serve as a portion of the Transportation Infrastructure element of the Kennewick Comprehensive Plan. The policies and projects contained in the Plan give the City direction on how to respond to land use and development proposals, what projects should have priority in the City's Six-Year Transportation Improvement Program, and under what policy framework specific regulations and standards should be developed.

2.8 Environmental Impact Policy

Kennewick's Comprehensive Plan titled includes a general policy-level discussion of the environmental impacts of long-range transportation projects. This is intended to minimize the negative transportation impact on the natural environment, air quality, noise quality, and fuel consumption.

2.9 Agency Level of Service Standards

Traffic operations analyses provides quantitative method for evaluating how the transportation system is functioning. It is applied to existing and forecast conditions to assist in identifying issues and potential improvement options. Level of service is a measure of the quality of traffic flow and operations. It can be described in terms of speeds, travel times, delays, convenience, interruptions, and comfort.

2.9.1 Vehicle Level of Service

The Highway Capacity Manual (HCM) (Transportation Research Board, 2010), provides methodologies for evaluating level of service (LOS) for transportation facilities and services. The HCM criteria range from LOS A indicating free-flow conditions with minimal delays, to LOS F indicating extreme congestion and long vehicle delays.

State Highway Level of Service Standards

Cities in Washington are required to include the LOS standards for all state routes in the Transportation Plan of their local comprehensive plan. I-82, US 395, and SR 240 are state highways serving the City of Kennewick and are designated as highway of statewide significance (HSS). The LOS standards for HSS facilities are jointly set by WSDOT and BFCG. LOS D is standard for facilities in urban areas and LOS C for facilities in rural areas. All facilities in the City of Kennewick would be considered urban areas.

WSDOT applies these standards to highway segments, intersections, and freeway interchange ramp intersections. When a proposed development affects a segment or intersection where the LOS is already below the state's adopted standard, then the pre-development LOS is used as the standard. When a development has degraded the level of service on a state highway, WSDOT works with the local jurisdiction through the SEPA process to identify reasonable and proportional mitigation to offset the impacts. Mitigation could include access constraints, constructing improvements,

right-of-way dedication, or contribution of funding to needed improvements.

City Level of Service Standards

The City has established LOS standards to provide for adequate mobility of traffic at intersections and adjacent roadways. The official City of Kennewick Level of Service standards are discussed in Chapter 5.

2.9.2 Non-Motorized and Transit Level of Service

The City of Kennewick has not adopted any specific level of service standards for non-motorized and transit system facilities.

2.10 Changes Since Last Plan Update

Since the last plan was completed in 2005, the City of Kennewick has completed several transportation projects that were identified in 2005 *City of Kennewick Transportation Systems Plan*. The City has also completed several other transportation planning efforts in subareas and along corridors.

2.10.1 Completed Projects

The 2005 *City of Kennewick Transportation Systems Plan* identified approximately \$115 million in transportation system improvements and maintenance over a 20-year planning horizon. The following projects identified in that plan, or identified after the plans adoption, have been completed:

New Roadways

Bob Olson Parkway Project consisted of a five-lane road constructed from Steptoe Street/10th Avenue roundabout to Sherman Street. It also included realignment of 15th Avenue from Clodfelter Road to Bob Olson Parkway, and the widening of Hildebrand Boulevard from Sherman Street to Grant Street with curb/gutter, sidewalk, streetlights, and landscaping. The projects provide a more direct north-south connection between SR 240 and development in the Southridge area, particularly with the completion of the new SR 240 interchange and roundabout at the northern terminus of Steptoe Street.

Roadway Widening/Reconstruction

Columbia Park East Bicycle Pedestrian Enhancements removed physical barriers, altered current pavement markings and signage, widened the path under the existing bridge and installed rectangular rapid flashing beacons at the location of the crosswalk where the path crosses Columbia Park Trail just east of the existing bridge.

Edison Street Widening between Canal Drive and Clearwater Avenue. This project enhanced safety in efforts to reduce crashes, improve traffic flow and provide congestion relief along the corridor.

Southridge Boulevard Reconstruction reconstructed Southridge Boulevard, between Christensen Road and Ridgeline Drive. The project included water, sewer, storm drainage, curb and gutter, sidewalk, streetlights and other miscellaneous improvements.

7th Place/Jean Place Extension

The project includes the extension of 7th Place near the south end of Jean Place. This will facilitate a new Boys and Girls club built on the new street.

Crossing Improvements

Pedestrian Crossing Improvements consisted of removing pedestrian barriers and constructing mid-block crossings (with ADA pedestrian ramps, rectangular rapid flash beacons (RRFB), raised median refuge islands, etc.) at:

- Volland Street at Nueva Vista apartments on Union street (across from Winco)
- Kellogg Street at TriTech Skills Center
- Washington Street at 6th Avenue serving Kennewick High School

Clearwater Avenue Projects

As part of the Clearwater Access Management Plan, several projects were identified to improve safety and operations along the corridor. The following projects have already been completed:

- US 395 to Huntington Street Safety Improvements (Partial improvements)
- Union Street Area Safety Improvements (Partial Improvements)

- Arthur Street Intersection Improvements
- Columbia Center Boulevard Safety Improvements (Partial improvements)

Pedestrian Projects

Between 2010 to 2017, the City of Kennewick have completed pedestrian-related capital improvements to their transportation network. These street treatments include:

- Annual Pedestrian Ramp Project. This includes upgrading ramps to meet current ADA Standards.
- Accessible Pedestrian Pushbuttons. The City's entire signal system uses the latest technology for APS (Accessible Pedestrian Systems) signals for crosswalks at signals.
- Shared use path. This was installed on Steptoe Street.
- Rectangular Rapid Flashing Beacons (RRFB's). The City installed new RRFB's at several locations over the past years.
- Median Islands for two stage crossings. This is another important improvement for pedestrian crossings so that they only have to cross one direction of traffic at a time. Several locations have seen these treatments over the past five years.

2.10.2 Subarea/Corridor Plans

Subarea and corridor plans provide the footprint for future capital projects to address capacity and safety improvements as well as a "sense of place" for subareas and corridors. In this way, improvements that are both functional and aesthetically pleasing may be developed.

Vista Field Redevelopment Master Plan (2017)

A collaboration between the Port and City of Kennewick, the Plan intends to transform the 103-acre former general aviation airfield into an urban, neighborhood-scaled

destination with mixed-uses, vibrant public spaces, private amenities, and a focus on multi-modal access. The transportation network is envisioned as a permeable grid with low-speed zones. Circulation, street classifications, sidewalk standards, and streetscape elements are mentioned. Traffic-calming treatments are also encouraged.

Bridge to Bridge – River to Railroad Revitalization (BB/RR) Plan (2015)

The Plan is to create a short and long-term strategy for the BB/RR area and its seven distinct neighborhoods for the next 20 years. The BB/RR area is between the Blue Bridge (US 395) and the Cable Bridge and the Columbia River to the BNSF Railroad mainline tracks. Roadway reconfiguration, streetscape enhancements, transit route reconfiguration, and construction of sidewalks, curbs and gutters are discussed with recommended treatments at specified location within the BB/RR area.

Clearwater Access Management Plan (2014)

This plan identifies functional and safety improvements along the Clearwater Avenue corridor that runs from US 395 on the east to I-82 on the west. The plan identifies street widening, access relocation and consolidation, signal upgrades and pedestrian crossing improvements that will improve safety and levels of service along the corridor.

Southridge Sub-Area Plan (2005)

This sub-area spans 2,530 acres in south Kennewick. Access to this sub-area is from US 395 at Hildebrand Boulevard and Ridgeline Drive. Land use changes within the sub-area have substantially increased traffic volumes on US 395.

Hansen Park Sub-Area Plan (2002)

This sub-area reaches approximately 377 acres. It is generally bounded on the north by the current Kennewick city limits, on the south by the Highland drainage canal, to the east by Columbia Center Boulevard, and to the west by Clodfelter Road. Access roads to the sub-area include

Columbia Center Boulevard, West 10th Avenue, and Clodfelter Road via West 10th Avenue and Clearwater Avenue. Circulation, access and roadway/sidewalk classifications and standards are addressed in the plan.

US 395 I-82 to I-182 Corridor Study (Draft 2017)
WSDOT is developing this study to identify current and future issues, identify strategies to maintain or enhance mobility in this corridor, as well as maintain efficient operations over the next 20 years. The study describes most of mainline US 395 congestion will continue to get worse within Kennewick and the Columbia River Crossing. US 395 is expected to serve as the major north-south arterial accommodating added volumes of future growth from the expanding Southridge Subarea community. The study stresses that new traffic controls or interchanges are needed to serve the Southridge Subarea growth. Improvements at major existing intersections in the US 395 Corridor within Kennewick will be needed to accommodate the future growth.

2.10.3 Annexations and UGA

As areas in the UGA have been annexed the total land area and number of residents within the City limits has increased over the years. As of 2016, the City includes approximately 27 square miles and approximately 78,000 residents (2012-2016 American Community Survey Five-Year Estimates, US Census). Kennewick's UGA has been expanded primarily at the south end.

2.11 Governing Legislation

The 2037 Transportation Systems Plan and Transportation Element fulfills the requirements of the Washington State Growth Management Act (GMA). Other state legislation requires the Plan include projects that address Healthy Communities and the Clean Air Conformity Act. Projects must also comply with the Americans with Disabilities Act (ADA).

2.11.1 Growth Management Act and Concurrency

Under the Growth Management Act (RCW 36.70A.070), referred to herein as the GMA, the Transportation Plan is required to assess the needs of a community and determine how to provide appropriate transportation facilities for current and future residents. The Transportation Plan must contain:

- Inventory of existing facilities;
- Assessment of future facility needs to meet current and future demands;
- Multi-year plan for financing proposed transportation improvements;
- Forecasts of traffic for at least 10 years based on adopted land use plan;
- Level of service (LOS) standards for arterials and public transportation, including actions to bring deficient facilities into compliance;
- Transportation Demand Management (TDM) strategies, and;
- Identification of intergovernmental coordination efforts.

Additionally, under GMA, development may not occur if the development causes the transportation facility to decline below the City's adopted level of service standard unless adequate infrastructure exists or strategies are identified to accommodate the impacts of the development are made within six years of the development. Finally, the element

must include a reassessment strategy to address how the Plan will respond to potential funding shortfalls.

2.11.2 Healthy Communities

Recognizing the growing need for physical activity among residents, the Washington State Legislature amended the GMA in 2005 with the Healthy Communities Amendment, ESSB 5186. Comprehensive plans are directed to address the promotion of Healthy Communities through urban planning and transportation approaches. The two amendments to the GMA require that communities:

1. Consider urban planning approaches that promote physical activity in the Land Use Plan; and
2. Include a bicycle and pedestrian component in the Transportation Plan.

2.11.3 Clean Air Conformity Act

The Transportation Plan is also subject to the Washington State Clean Air Conformity Act that implements the directives of the Federal Clean Air Act. Because air quality is a region wide issue, the City must support the efforts of state, regional, and local agencies as guided by WAC 173-420-080.

2.11.4 Americans with Disabilities Act (ADA)

The Americans with Disabilities Act (ADA) was enacted on July 26, 1990, and provides comprehensive civil rights protections to persons with disabilities in the areas of employment, state and local government services, and access to public accommodations, transportation, and telecommunications. Of the five titles or parts to the ADA, Title II is most pertinent to travel within the public right-of-way. Part 35, Subpart D – Program Accessibility § 35.150 (d)(3)) of Title II requires local agencies to conduct a Self-Evaluation and Transition Plan.

2.12 Relationship with Other Plans

maximize coordination with other agencies and organizations.

2.12.1 City of Kennewick Comprehensive Plan

The Transportation Systems Plan is a component of the Comprehensive Plan and should be consistent with other sections of the Comprehensive Plan, including the Transportation Element. An update to the Comprehensive Plan was adopted in 2017 in conjunction with the 2040 Transportation Systems Plan to provide consistency and coordination between the two planning efforts.

The Transportation Element goals and policies help guide implementation of the City's transportation system and supports the other Elements of the Comprehensive Plan and the overall vision for Kennewick. The goals and policies establish the general philosophy for use of City rights-of-way and transportation funds. The policies also indicate City priorities for regional transportation system programs, including freeways, arterials, non-motorized facilities, bus and rail transit service and facilities, and transportation demand management (TDM).

2.12.2 BFCOG Active Transportation Plan

The BFCOG 2016 Regional Active Transportation Plan was adopted in June 2016 and addresses active transportation in the City of Kennewick. City citizen groups and staff participated in the creation of the plan.

The Active Transportation Plan provides extension background on pedestrian and bicycle facilities, planning efforts, and recommendations. Recommendations from this plan have been incorporated into the Kennewick TSP.

2.12.3 Ben Franklin Transit Development Plan

Ben Franklin Transit submits a six-year Transit Development Plan annually. Among other items, the 2017 plan outlines the goals of the transit agency. The primary objectives of the agency are to address community growth in the region and

3. EXISTING TRANSPORTATION SYSTEM

3 Existing Transportation System

This chapter summarizes key components of the existing transportation system serving the City of Kennewick that represent the transportation system in its current condition. An inventory of transportation facilities is presented through maps, figures, and descriptions that provide a foundation for identifying and prioritizing the City's transportation improvement projects and programs presented later in the 2040 Transportation Plan.

The transportation system within the City of Kennewick consists of streets and highways, pedestrian and bicycle facilities, and transit service. Freight and goods, which are vital to the City's economic development, are primarily carried by trucks and rail lines. Following a description of the street system, subsequent sections describe the existing multimodal transportation system within the current City Limits and Urban Growth Area (UGA) for the travel modes on the City's transportation system.

3.1 Transportation System Networks

The transportation system inventory identifies key transportation issues to be addressed in this plan update. The networks that comprise the transportation system include the arterial and collector street system, pedestrian and bicycle facilities, transit service, freight routes, rail lines, and air facilities. Most travel within the City of Kennewick occurs on the streets and highways that also provide public space for other modes.

3.1.1 Roadway Physical Characteristics

The roadway physical characteristics of a City's street system provide the basis for the function of the roadway system and the amount of traffic that can be safely and efficiently accommodated each day. The roadway physical characteristics should be directly related to the functional classification of the roadway and should be reflected in the

street design standards. The following roadway characteristics are described in this section:

- Travel Lanes
- Traffic Signal and Roundabout Locations
- Speed Limits

Other important roadway physical characteristics, such as sidewalks and bike lanes or shy lanes and shoulder widths, are discussed in Pedestrian and Bicycle System chapters of this report.

Travel Lanes

Figure 3-1 shows the existing number of travel lanes along the roadways within Kennewick. The majority of the roadways in the City of Kennewick have one travel lane in each direction. Principal and minor arterials often have two travel lanes in each direction with a center left-turn lane. Columbia Center Boulevard even has three lanes in each direction between SR 240 and Quinault Avenue with further widening proposed all the way to Deschutes Avenue to the south.

speed limits, up to 55 mph along US 395 as it enters the City from the south and 60 mph along SR 240 which borders the north side of the City.

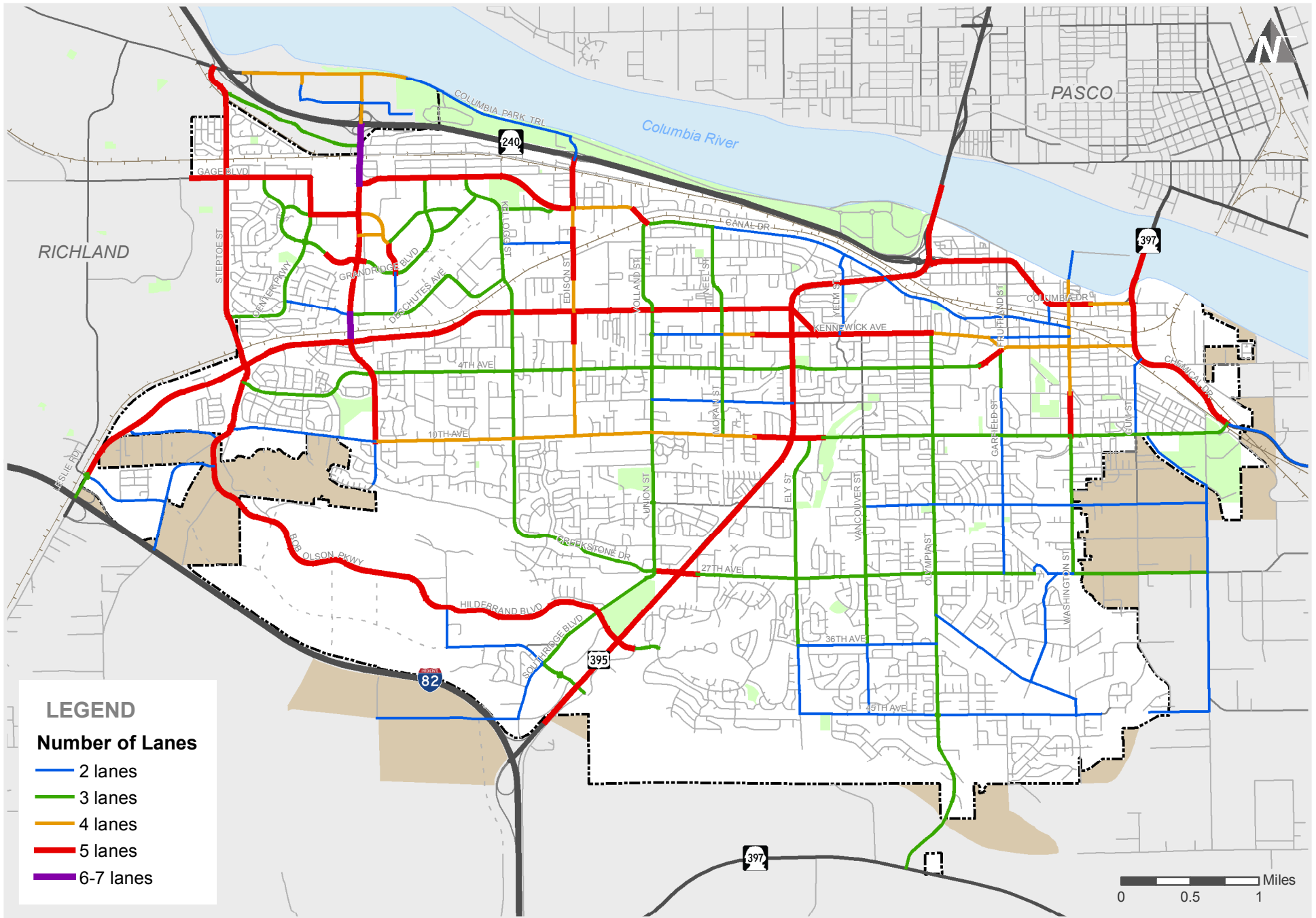
Traffic Signal and Roundabout Locations

The City's traffic signals that are typically located along principal and minor arterials, especially in the commercially zoned areas of the City. There are also four supplementary flashing intersection control beacons located on the east side of the City. Where signals or roundabouts are not shown at intersections, other signage exists to control traffic, including all-way stops, two-way stops, and yield signs.

The City was one of the early adopters of roundabouts on a large scale in Washington and currently has 22 roundabouts located throughout or near the City. A roundabout is generally considered the first option over a traffic signal when an intersection upgrade is necessary, unless the intersection is in the middle of a coordinated network of signals or sufficient right-of-way is unavailable.

Speed Limits

Posted speed limits within the City range from 60 mph on state highways to 20 mph on local streets. Most local streets have speed limits of 25 mph with a select few posted at 20 mph. Collectors such as Kellogg Street, 19th Avenue, Deschutes Avenue, and Center Parkway have speed limits in the 30 to 35 mph range. Minor arterials such as 27th Avenue, Canal Drive, Kennewick Avenue, and Edison Street have speed limits between 30 and 40 mph. Principal arterials such as 1st Avenue, Columbia Center Boulevard, and Clearwater Avenue typically have speed limits that range between 30 and 45 mph. State highways have the highest



Existing Number of Travel Lanes

Kennewick Citywide Transportation Plan

M:\1711.17118.00 - Kennewick Citywide Transportation Plan\GIS\Maps\MXD\Figures\DRAFT_Fig 3-1 Existing Travel Lanes.mxd

DRAFT

FIGURE

transpogroup 

3-1

3.1.2 Existing Traffic Volumes

Existing weekday daily and peak hour traffic volumes were collected in October of 2016 as part of the City's annual traffic count inventory. Automated tube counts collected daily traffic information along key arterials and manual turning movement counts were collected for the PM peak hour at major intersections throughout the City. Traffic data was also obtained from WSDOT for locations along US 395 and SR 240. PM peak hour traffic data were collected between the hours of 4 to 6 PM in the evening.

2016 Weekday Daily Traffic Volumes

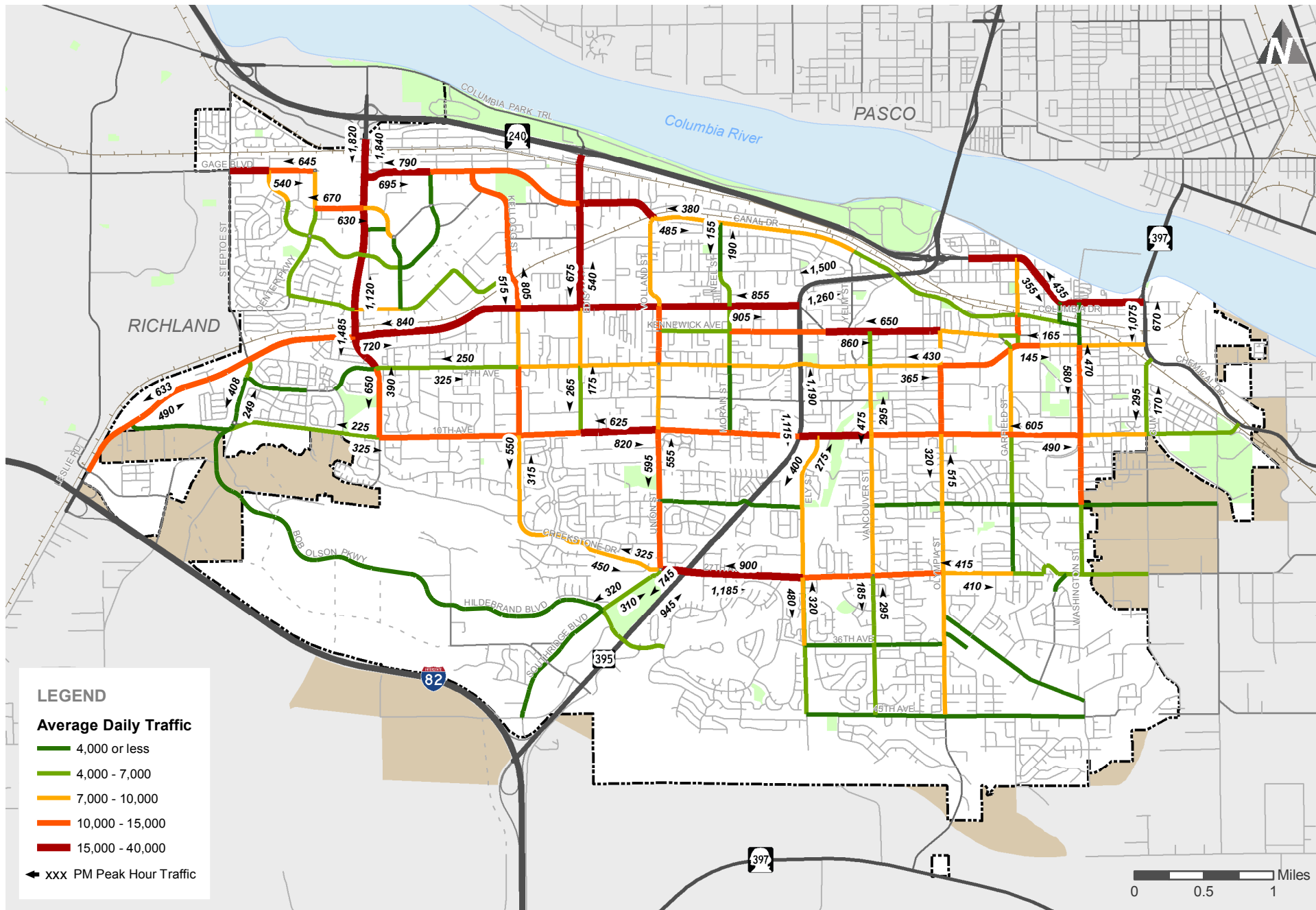
As shown in Figure 3-2, City arterials that carry a large number of daily traffic volumes include Columbia Center Boulevard south of SR 240 with volumes between 28,000 and 40,000 vehicles per day, Columbia Drive between Fruitland Street and U.S. 395 with volumes over 26,400 vehicles per day, and Gage Boulevard between Grandridge Boulevard and Steptoe Street with volumes over 26,000 vehicles per day.

In general, the average daily traffic volumes are higher in the northern portion of the City. Though traffic has fluctuated up and down due to development patterns and changes in the roadway networks, city-wide traffic growth has been about 2 percent over the past five years, although growth rates of 20 to 30 percent have been recorded in rapidly developing areas.

Weekday daily traffic volumes represent a typical weekday and don't always capture seasonal fluctuations or fluctuations due to events such as concerts or sporting events. Traffic volumes on some City commercial corridors such as Columbia Center Boulevard, Clearwater Avenue, Gage Boulevard, and others experience traffic volume increases of between 10 to 25 percent during peak shopping periods such as Thanksgiving through New Years.

2016 PM Peak Hour Volumes

PM weekday peak hour traffic volumes, as illustrated in Figure 3-2, account for between 8 to 12 percent of daily traffic with most major corridors averaging 10 percent of daily traffic. The roadways with the highest PM peak hour volumes mirror those described in the previous section.



Existing (2016) Daily and PM Peak Hour Volumes

Kennewick Citywide Transportation Plan

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FIGURE

transpogroup

3-2

3.1.3 Pedestrian Network

The Kennewick pedestrian system consists of sidewalks, crosswalks, curb ramps, and shared-use paths throughout the City. The City's roadways act as the primary facilities to accommodate pedestrians. Many of these roadways have sidewalks to accommodate pedestrians.

Sidewalks

Figure 3-3 shows the existing sidewalk, trail, and shared-use path locations along arterial roadways. Included on the figure are locations of sidewalks on the collector and local street systems.

Non-arterial sidewalks generally exist along collector and local streets where new development has occurred, and where retail development is close by. An example of this is near Columbia Center Mall in the northwest portion of Kennewick. In addition, streets located near public facilities, such as schools or transit centers, often have sidewalks as they are utilized heavily by pedestrians.

Trails/Shared-Use Paths

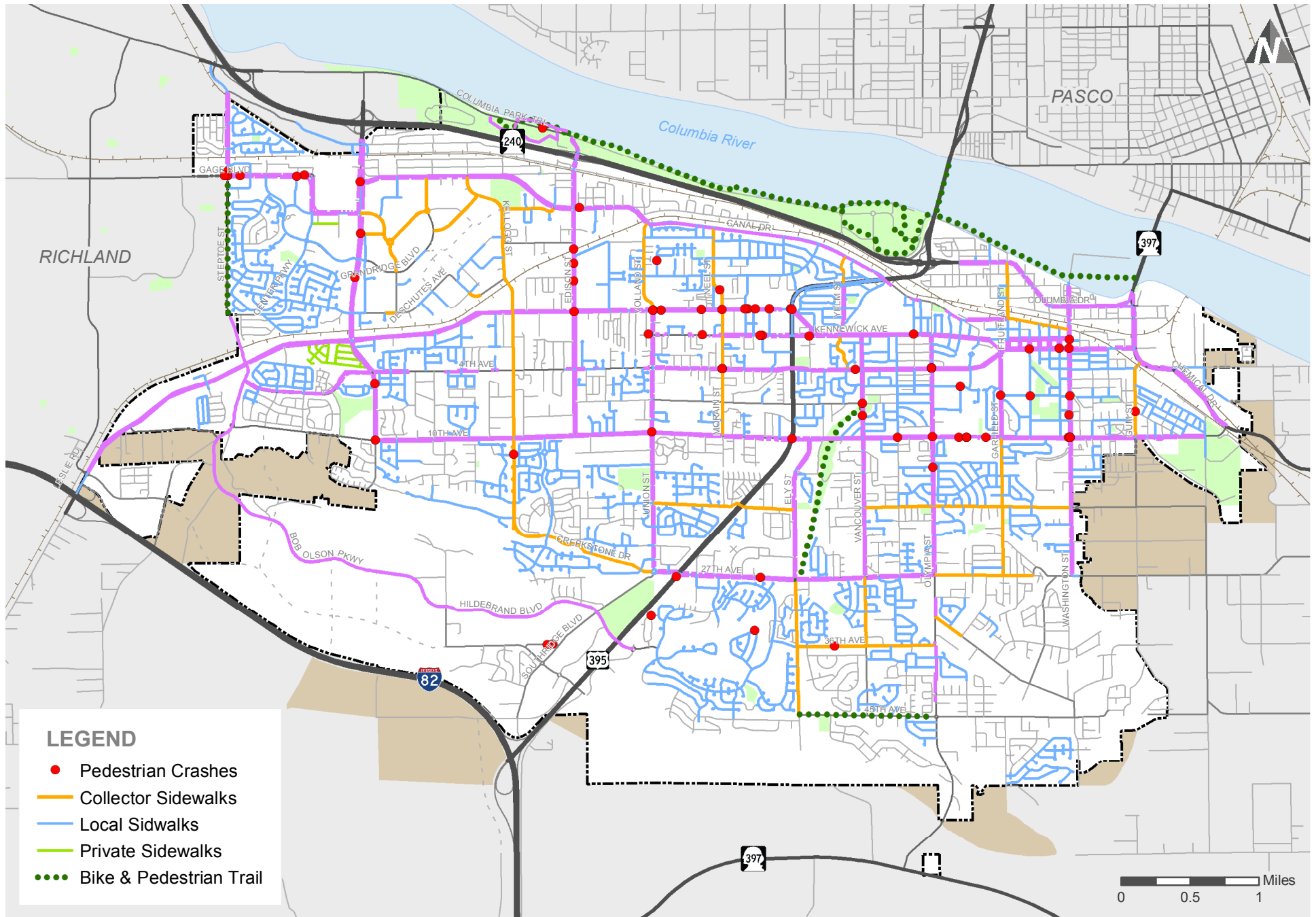
Trails and shared-use paths are facilities which can be used not only by pedestrians, but also by other non-motorized vehicles, such as bicycles. There are several of these types of trails in the City of Kennewick, though the largest shared-use path is the Sacajawea Heritage Trail. This non-motorized route extends throughout the Tri-Cities area, including a section bordering the Columbia River in the northern section of Kennewick. Another major trail in Kennewick is the Audubon Nature Trail, which runs through Columbia Park, also located along the Columbia River.

Missing Sidewalks

In general, and over the past 20 years, the City of Kennewick has been ensuring that sidewalks on arterial streets are constructed on both sides of new streets. As a result, newer subdivisions have few missing sidewalks. A greater number of streets with missing sidewalks are located within older neighborhoods.

Curb Ramps

Over 90 percent of the City's arterial crosswalks have curb ramps. The majority of curb ramps constructed in the City of Kennewick study area are diagonal by design, with a single ramp oriented to the center of the street intersection. Perpendicular curb ramps are more often found in downtown Kennewick along the grid street network where sidewalks were constructed with sidewalk buffer strips. In recent growth areas, most new curb ramps have been constructed to standards with diagonal ramp designs.



Existing Pedestrian Facilities

Kennewick Citywide Transportation Plan

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FIGURE

3.1.4 Bicycle Network

Bicycling is an important and growing mode of travel for people in cities across the country. When appropriately planned, bicycle routes have a role in reducing congestion, improving air quality, providing travel choices, encouraging exercise and recreation, and providing greater mobility for those without access to a vehicle.

Kennewick's bicycle system has many excellent features but is lacking a cohesive and connected system. Older arterial streets were originally constructed without bicycle lanes, but many arterial streets now have bicycle lanes. A local citizen group of bicyclists identified the following areas that present barriers to greater ridership in the City.

- North-south access to the Columbia Park Trail can be difficult particularly at the Steptoe Street/SR 240 interchange and along the Columbia Center Boulevard corridor.
- Access to/from the Columbia Mall can be difficult
- Tapteal Loop does not feel safe to use
- Keene Trail ends at Steptoe Street, and could be extended further east
- Routes between Old Kennewick and the Cable Bridge do not feel safe to use. Fruitland Street is closest viable route but is an indirect route.
- North-south connectivity is poor between the Sacagawea Trail (near Blue Bridge) and Kennewick Avenue.
- East-west facilities are poor at the Canal Drive/Edison Street intersection creating a gap in the system.
- North-south facilities are poor at the Edison Street/SR 240 Ramp intersections creating a gap in the system,

The Kennewick bicycle system has three types of bicycle facilities illustrated in Figure 3-4, and these facilities are spread throughout the City. Existing bicycle treatments include, bicycle lanes, shared lanes, and shared-use trails.

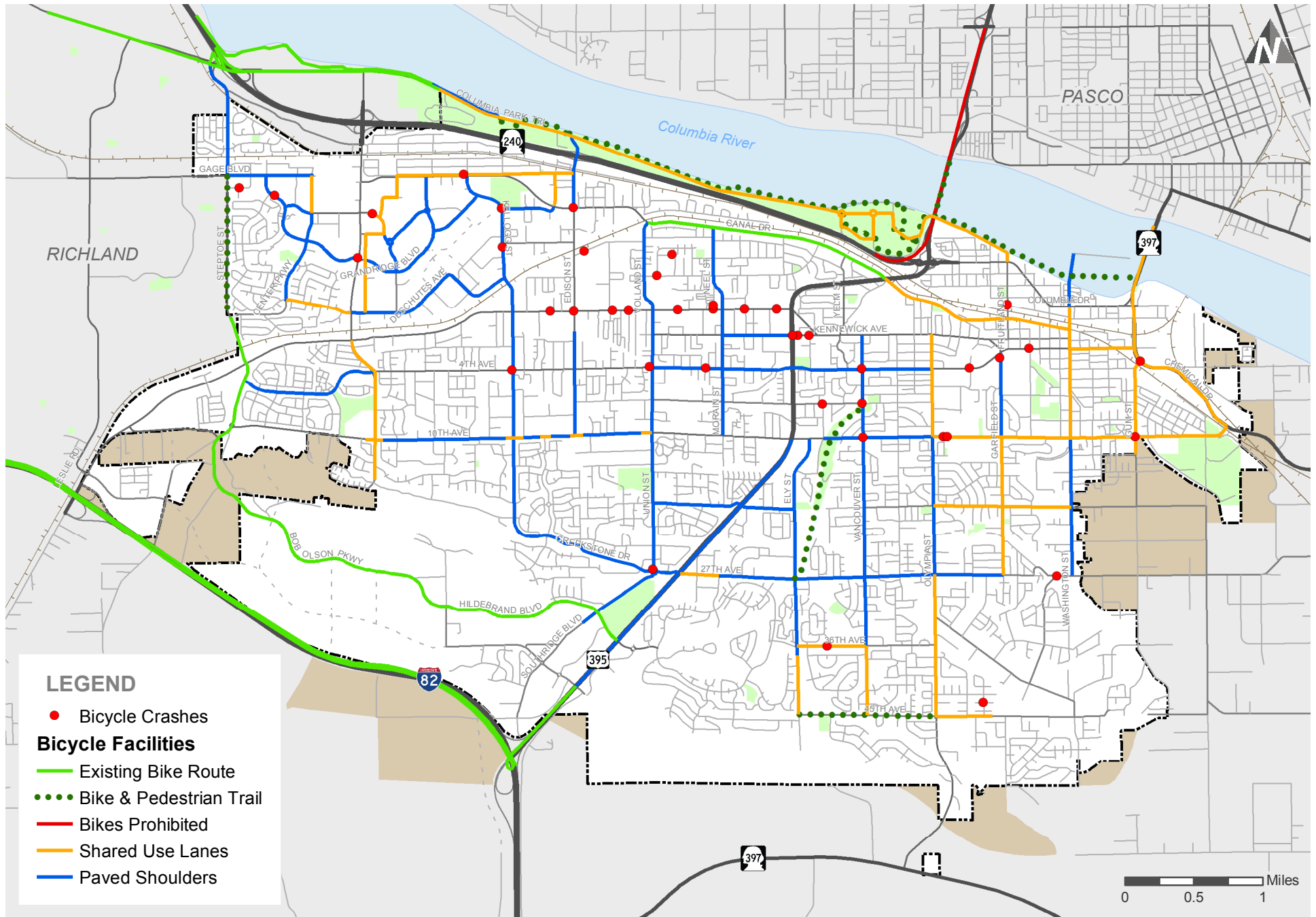
Bicycle Lanes

Bicycle lanes are striped roadway space dedicated for cyclists and are typically provided on the edge of the traveled way. Bicycle lanes may be included on both sides of the roadway or on one side of a sloped roadway where there is not sufficient space for bicycle lanes in both directions. They are typically 4 to 6 feet in width (not including vehicle buffers) and are marked with a wide white stripe or buffer area.

Bicycle lanes, or shy lanes, are located throughout the City, mainly on arterials such as Kellogg Street, Union Street, Vancouver Street, 4th Avenue, 27th Avenue, and Canal Drive. They are often near transit centers, shopping malls, and public facilities, though may not be right next to the facility. These lanes also extend into other jurisdictions, particularly Richland to the west. Cyclists regularly use US 395 across the Columbia River between Kennewick and Pasco via the bike trail on the east side of the bridge, though bicycles are prohibited along the US 395 bridge in the roadway.

Shared Lanes

While not formal bicycle facilities, roadways with shared lane markings, or sharrows, can provide connectivity for experienced cyclists. Shared lane markings are a tool that can assist cyclists and motorists by indicating appropriate bicycle positioning on a roadway, increasing safety and visibility.



Existing Bicycle Facilities

Kennewick Citywide Transportation Plan

DRAFT

FIGURE

transpogroup

3-4

A signed shared lane, or shared use lane, can be on nearly any City street with the capacity to accommodate bicycles. Although the City's bicycle facilities cover most of the City, there are connections that need to be made and activity centers that should be served by adequate bicycle facilities. Clearwater Avenue and Columbia Center Boulevard do not have many bicycle facilities. Considering the amount of commercial activity along these corridors, this lack of connectivity is a large gap in Kennewick's bicycle system. Also, as schools often serve as community hubs in addition to educational facilities, the presence of bicycle facilities near schools is a priority. Older sectors of Kennewick also have schools and activity centers disconnected from bicycle facilities.

Trails/Shared-Use Paths

Trails and shared-use paths are facilities which can be used not only by pedestrians, but also by other non-motorized vehicles, such as bicycles. Paved trails are preferred by many cyclists who also travel on streets, but finely crushed gravel surfaces may be suitable alternatives.

There are several of these types of trails in the City of Kennewick, though the largest shared-use path is the Sacajawea Heritage Trail. This non-motorized route extends throughout the Tri-Cities area, including a section bordering the Columbia River in the northern section of Kennewick. Another major trail in Kennewick is the Audubon Nature Trail, which runs through Columbia Park, also located along the Columbia River.

3.1.5 Transit Network

This section describes current and potential new public transportation services and facilities affecting the City of Kennewick. Included in the description is a summary of current fixed routes and service levels, as of January 2018. Transit and public transportation facilities in the Kennewick area are operated by Ben Franklin Transit (BFT). The transit services available include bus transit, vanpooling, park-and-rides lots, taxi feeder services, and dial-a-ride service. Figure 3-5 shows the bus routes within the City, as well as transit centers, park-and-ride lots, transfer points, and other transit facilities. The infrastructure of the transit system is described below.

Bus Routes

The BFT route network is extensive, with service provided in all major areas of the City. There are ten bus routes that regularly run within the City of Kennewick. These include four routes that operate exclusively within Kennewick (routes 41, 42, 47 and 48), four routes that provide service between Kennewick and Richland (routes 110, 120, 123, 126) as well as two routes that run between Kennewick and Pasco (routes 150 and 160). All routes operate with either half hour headways (Routes 42, 47, 48, 120, 123, 126, 150 and 160) or hour headways (Routes 41, 110). All transit routes operate between the hours of 6:00am and 8:00pm Monday through Friday and 7:00am to 7:00pm on Saturdays.

Ridership data for Kennewick bus routes was obtained from Ben Franklin Transit. In 2016, Ben Franklin Transit provided a total of 3,632,286 unlinked passenger trips, an 8.2% decrease from 2015..

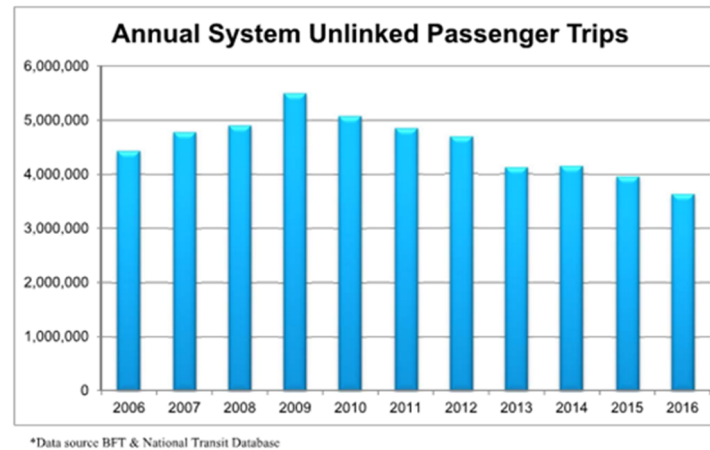


Figure 3-5 Annual Passenger Trips on Ben Franklin Transit

As shown above, annual ridership has decreased each year from 2009 to 2016. As highlighted in Table 3 1, approximately 67 percent of passengers using BFT are served by Fixed Route Transit, with the remaining 33 percent served by vanpool, dial-a-ride and taxi services.

Table 3-1 BFT Passenger Trips by Service Mode

Route Mode	Annual Ridership	Percent
Fixed Route	2,419,818	67%
Vanpool	709,319	20%
Dial-A-Ride	380,207	10%
Taxi Services	122,942	3%
Total	3,632,286	

Park & Rides/Transit Centers

There is one dedicated transit center located in Kennewick: Three Rivers Transit Center off Okanogan Place, as well as the "Dayton Transfer Point" which serves as a transit hub.

These centers function as points for riders to easily change routes within the transit system.

Three Rivers Transit Center is made up of a series of bus shelters where buses can layover, riders can transfer between buses, and where public restrooms are available. Three Rivers is not a park and ride location, as there is no dedicated public parking for transit riders. Nine transit routes serve Three Rivers Transit Center, making it the largest transit hub in Kennewick.

Also within the City is Dayton Transfer Point, located on Dayton Street between 1st Avenue and Keewaydin Drive. This point is for riders to transfer buses, but does not have facilities typically associated with transit and is aesthetically more like a regular bus stop.

Taxi Feeder Service

BFT provides assistance for people who need to take a bus, but may not be located close enough to a transit stop to walk there. Certain areas are defined within the City to assist these people and are known as Taxi Feeder Service Areas (TFSAs). People from these areas can call the designated cab company to be picked up at a certain time at a specified stop that serves the designated TFSA. The call must be placed 30 minutes prior to pick-up time. The cab then takes the person to the nearest bus stop, where the person then rides the bus, paying once he or she boards. To call a cab for the return trip, riders notify the bus driver and a cab is called that will wait at the designated stop to take the rider to the original TFSA pick-up/drop-off location. This service costs \$1 for rides up to 4 miles, and \$3 for rides longer than 4 miles. Seniors (65+) with a Senior ID card are eligible for free taxi feeder service.

Vanpooling

Another service BFT offers is vanpooling. This transit service offers commuters an opportunity to share a ride in one of BFT's 7-, 12-, or 15-passenger vans, with each person helping pay for fuel, maintenance, car payment, and

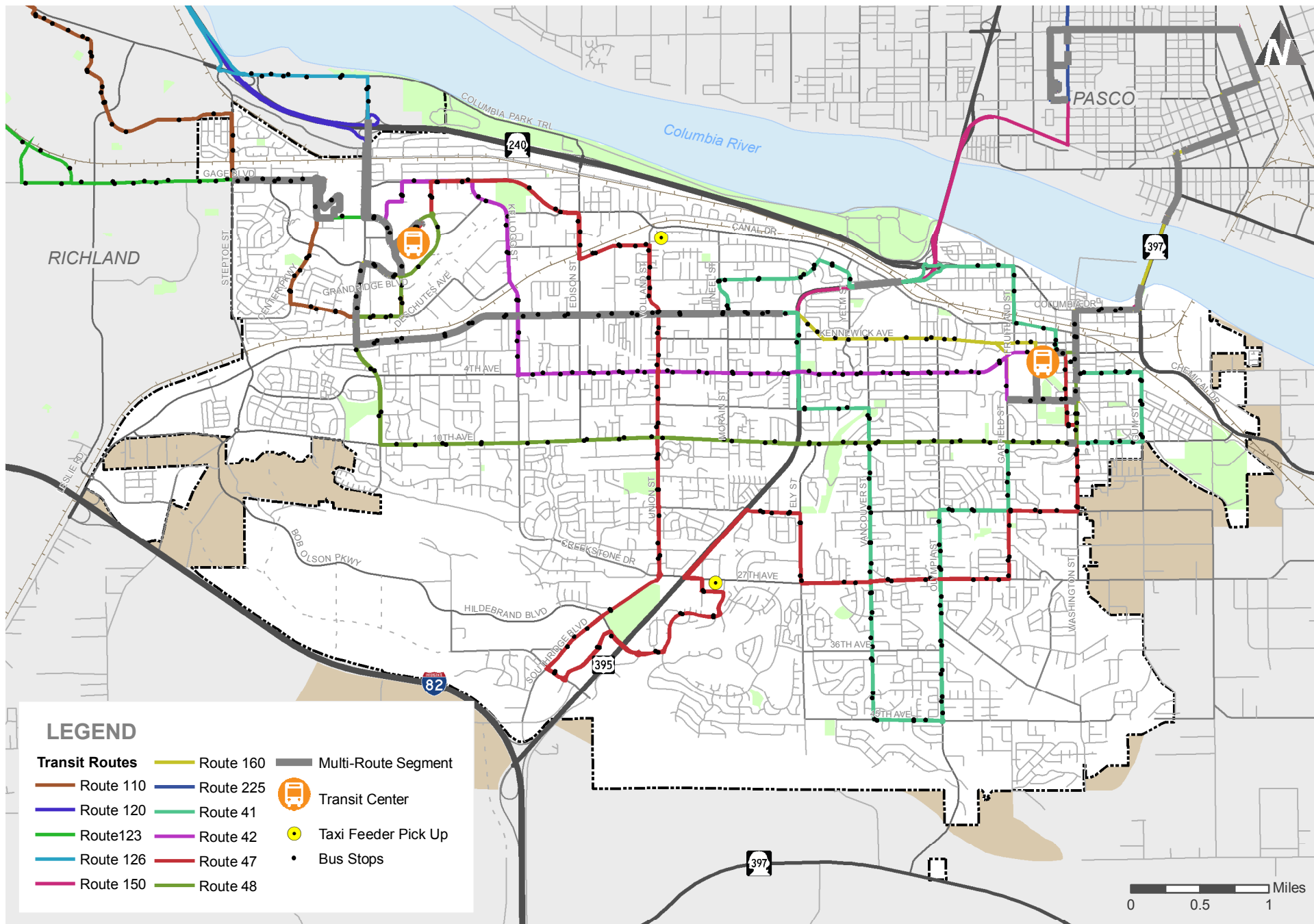
insurance in one fee. This fee is collected by the driver of the van, who is also responsible for refueling the van; in return the driver is able to ride free. A typical cost for a BFT vanpool rider is \$64 per month, though the cost varies by the number of riders and the mileage of the total trip.

Dial-A-Ride

BFT also provides Dial-A-Ride service, which is a shared-ride, door-to-door transportation service for people with a disability that cannot use customary transit service. Customers call the Dial-A-Ride number between 8:00am and 5:00pm at least one day prior to their trip to request a pick up time. For trips other than those to medical appointments, a return time must also be scheduled. The operation hours are consistent with BFT's regular routes: 6:00am to 8:00pm Monday through Friday and 7:00am to 7:00pm on Saturdays.

Transit Fares

The different services provided by BFT have different costs associated with them. BFT offers the general public the option of purchasing monthly transit passes that enable the rider with unlimited amount of use of the system. Also offered are 10-day tickets for those that do not use transit frequently. Daily cash fares are collected for users without a prepaid ticket or pass.



3.1.6 Freight, Air, and Water Facilities

Other transportation infrastructure includes freight corridors, water transport facilities, and air transport facilities.

Freight Corridors

The Washington State Freight and Goods Transportation System (FGTS) classifies highways, county roads, and city streets according to the average annual gross truck tonnage they carry. Truck tonnage values are derived from actual or estimated truck traffic count data that is converted into average weights by truck type.

The FGTS uses five truck classifications, T-1 through T-5, depending on the annual gross tonnage the roadway carries. Yakima has roadways or roadway segments that fall into every classification level.

- T-1: more than 10 million tons per year
- T-2: 4 million to 10 million tons per year
- T-3: 300,000 to 4 million tons per year
- T-4: 100,000 to 300,000 tons per year
- T-5: at least 20,000 tons in 60 days and less than 100,000 tons per year

Corridors with the highest annual gross tonnage, T-1 and T-2 routes, are also identified as Strategic Freight Corridors.

The I-82 and US 395 corridors are classified as T-1 corridors as shown on Figure 3-6. Portions of SR 240, SR 397, Columbia Center Boulevard, and Columbia Drive are classified as T-2 corridors.

SR 240 is a major regional roadway that connects US 395 in Kennewick to I-182 in Richland and then continues on to the Hanford Nuclear Reservation. SR 240 allows for movement of goods and freight between ports in the City of Richland and ports in the City of Kennewick and important economic centers such as the Columbia Center Mall.

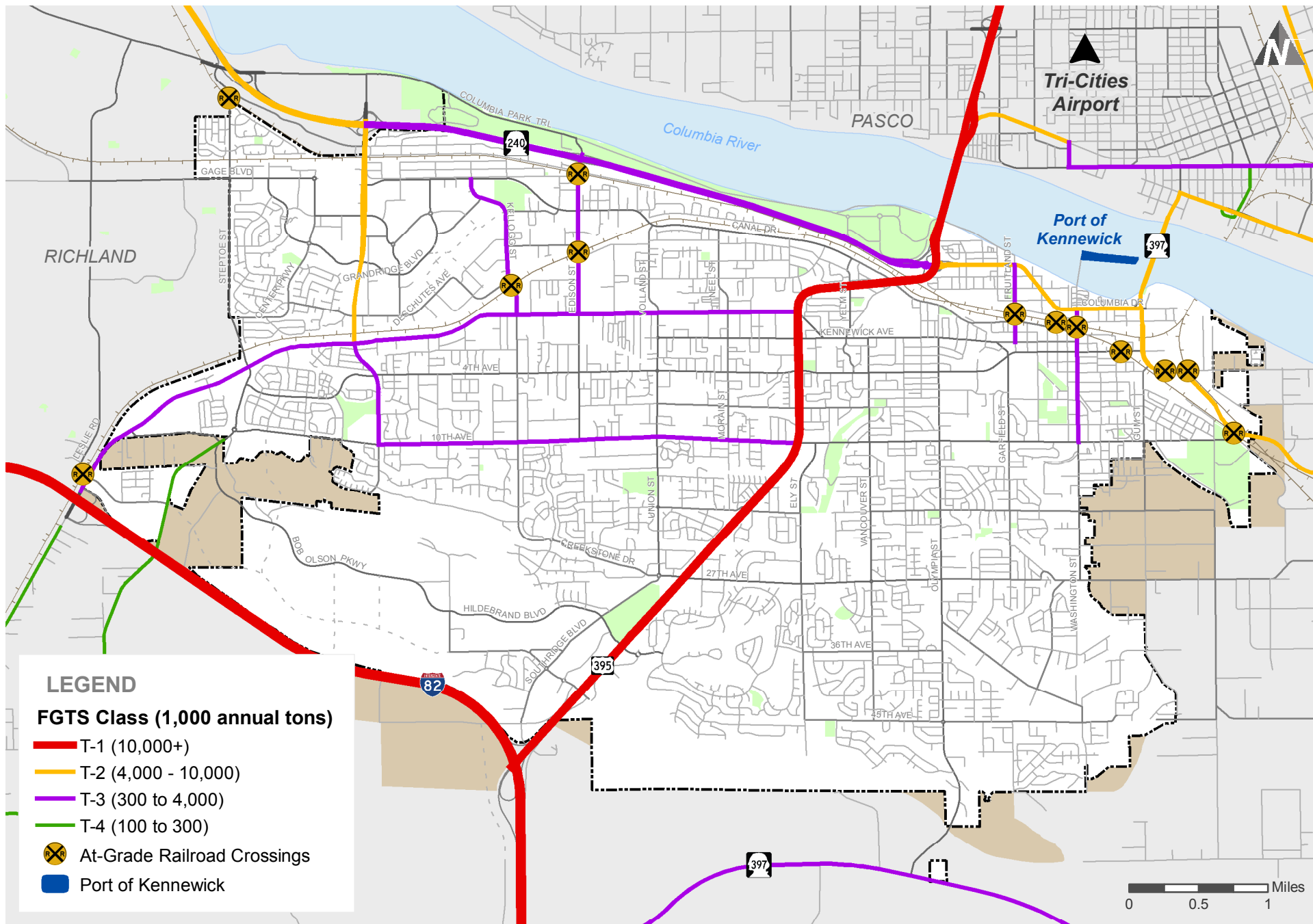
Columbia Drive is an important five-lane link between the SR 240/US 395 interchange and SR 397. Columbia Drive serves a vital economic section of the City and facilitates the movement of freight and goods between port and rail facilities in Kennewick and other regional roadways. Columbia Drive also forms a connection between two major bridges across the Columbia River.

I-82 is a four lane freeway that extends from I-90 near Ellensburg, Washington, to I-84 near Hermiston, Oregon. I-82 is the only route across the Columbia River into Oregon in all of Southeast Washington.

At Grade Crossings

At grade railroad crossings in the City, illustrated in Figure 3-6 are points of friction between rail traffic and vehicular, pedestrian, and bicycle traffic. Currently there are at least 11 at-grade rail crossings in the Kennewick urban area on active rail lines including crossings of the following roadways:

- Leslie Road west of Clearwater Avenue,
- Kellogg Street south of Deschutes Avenue,
- Edison Street north of Metaline Avenue,
- Edison Street south of Yellowstone Avenue,
- Fruitland and Benton Streets north of Canal Drive,
- Washington Street north of Canal Drive and south of Bruneau Avenue,
- 1st Avenue west of SR 397,
- Gum Street west of SR 397, and
- SR 397 east of Gum Street.
- 3rd Avenue east of SR 397
- 10th Avenue west of SR 397



Freight, Air, and Water Transport Facilities

Kennewick Citywide Transportation Plan

DRAFT

FIGURE

transpogroup

3-6

Delays for vehicular traffic and trucks are increased when trains are crossing the roadway. Buses are required to stop and check for rail traffic at railroad crossings before proceeding even when no warnings are active causing delays for motorists behind them. At grade rail crossings can be hazardous for pedestrians and cyclists because of the uneven nature of the roadway.

Air Transport

The closest commercial airport to Kennewick is the Tri-Cities Airport, located in the City of Pasco and operated by the Port of Pasco. It is located just north of the junction of US 395 and I-182. Four major airlines operate in this airport.

The region also has two other airports: the Richland Airport, and the Prosser Airport. Along with the Tri-Cities Airport in Pasco, these three airports are part of the Federal Aviation Administration (FAA) National Plan of Integrated Airport Systems (NPIAS). This inclusion enables these facilities to receive funding through the federal Airport Improvement Program (AIP).

Marine/Water Transport

Kennewick sits along the Columba-Snake River System (CSRS), which extends 465 miles from the Pacific Ocean into North America. Eight dam and lock complexes are in the system, allowing barge lines to transport goods to various destinations along the river. The Port of Kennewick owns several sites along the CSRS, including the Hover site just southeast of the City.

3.2 Transportation System Performance

Performance of the transportation system includes an evaluation of all modes based on City standards and available analysis tools. The existing performance results contained in this section will set the stage for the evaluation of the forecast (2040) transportation system. The following sections describe vehicular operations at intersections and on corridors, non-motorized operations, and transit service operations.

3.2.1 Intersection Operations

Intersection traffic operations evaluate the performance of signalized, stop-controlled and roundabout intersections according to the industry standards set forth in the HCM 2010. PM peak hour traffic operations were evaluated at 23 study intersections using Synchro version 9.1 and Sidra. The PM peak hour intersection operations were selected due to the higher typical traffic volumes occurring during that time period for a single hour between 4 and 6 p.m.

Existing (2016) Intersection LOS

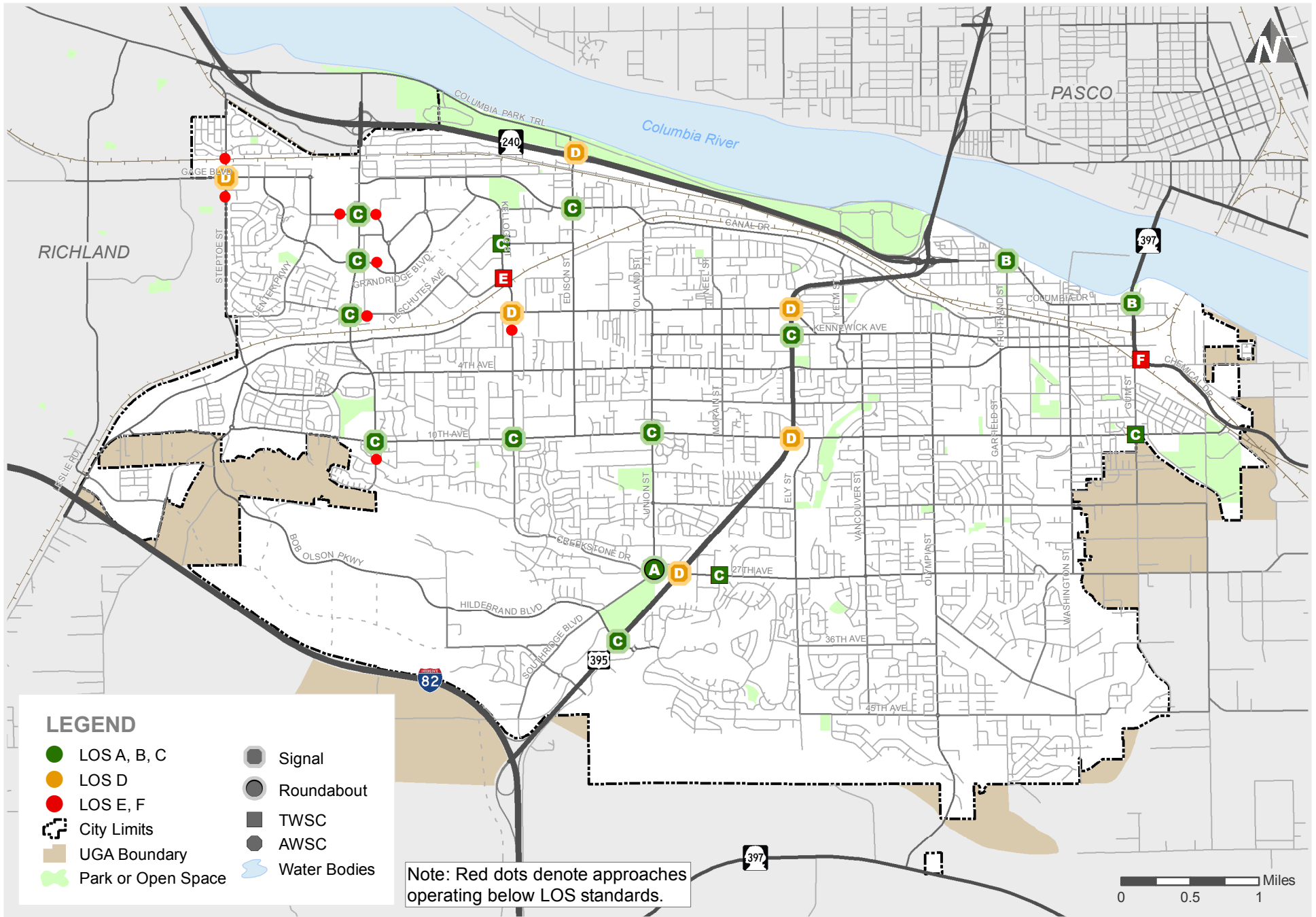
City of Kennewick LOS standards are identified in this Comprehensive Plan for roadways within the City and are discussed in Chapter 5. Existing levels-of-service at key intersections in City of Kennewick are shown in Table 3-1 and Figure 3-7. The results of the LOS analysis indicate that seven City intersections and one State intersection have operations in the PM peak hour that do not meet LOS standards.

Table 3-2 Existing (2016) Intersection LOS

#	Intersection	Control	LOS ¹
1	Steptoe St / Gage Blvd	Signal	D (E)*
2	Columbia Center Blvd / Quinalt Ave	Signal	C (E)*
3	Columbia Center Blvd / Grandridge Blvd	Signal	C (E)*
4	Columbia Center Blvd / Deschutes Ave	Signal	C (F)*
5	Edison St / Canal Dr	Signal	C (D)
6	Kellogg St / Metaline Ave	Stop Sign	(C)
7	Kellogg St / Deschutes Ave	Stop Sign	(C)
8	Kellogg St / Clearwater Ave	Signal	D (E)*
9	Columbia Center Blvd / 10th Ave	Signal	C (E)*
10	Kellogg St / 10th Ave	Signal	C (D)
11	Union St / 10th Ave	Signal	C (C)
12	Union St (Southridge Blvd) / 27th Ave	Roundabout	A (B)
13	Olsen St / 27th Ave	Stop Sign	(C)
14	Fruitland St / Columbia Dr	Signal	B (D)
15	Gum St / 10th Ave	Stop Sign	(C)
16	Edison St / SR 240 WB Ramps	Signal	D
17	US 395 / Clearwater Ave	Signal	D
18	US 395 / Kennewick Ave	Signal	C
19	US 395 / 10th Ave	Signal	D
20	US 395 / 27th Ave	Signal	D
21	US 395 / Hildebrand Blvd	Signal	C
22	SR 397 / Columbia Dr	Signal	B
23	SR 397 / Gum St	Stop Sign	(F)*

Source: Transpo Group 2018

1. Overall Level of Service shown for signals. Worst approach LOS is shown in parenthesis for City intersections only or stop-sign controlled intersections. [*] indicates intersection is not meeting LOS standard.



Existing (2016) Intersection Operations

Kennewick Citywide Transportation Plan

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FIGURE

transpogroup

3-7

3.3 Traffic Safety

Traffic safety is an important factor in determining priority projects for future project planning. For the City of Kennewick, traffic safety was evaluated for major roadways and intersections over a five year period, from January 1, 2012 to December 31, 2016 within the City limits. An evaluation of the location and severity of reported collisions was completed to identify potential safety issues for vehicles, pedestrians, and cyclists. Data was obtained from City Staff and WSDOT and only contains information for those collisions reported to the City and State Highway Patrol. The following safety data are discussed in this section:

- Fatalities
- Intersection Safety Analysis
- Roadway Safety Analysis
- Pedestrian Safety
- Bicycle Safety

3.3.1 Fatalities

During the five-year period from 2012 and 2016, 13 fatalities occurred within the City. Seven (7) occurred at intersections, including two in 2012, one in 2014, and four in 2016, as illustrated in the Table 3-2. Six (6) fatalities occurred at non-intersection related locations, including one in 2013, two in 2014, two in 2015, and one in 2016, as illustrated in Table 3-3. Five (5) of the 13 fatalities between 2012 and 2016 involved pedestrians.

3.3.2 Intersection Safety Analysis

The method for analyzing intersection safety was to review the five-year (2012 to 2016) crash data. The crash rate calculated for intersections was based on the average number of accidents per million entering vehicles (MEV). Crash rates above 0.75 MEV are shown in Table 3-4.

3.3.3 Roadway Safety Analysis

Roadway segment crash rates were calculated based on the number of accidents per million vehicle miles (MVM) traveled. The results of the roadway segment analysis are summarized in Table 3-5. A 5-year average crash rate of 8.00 was selected in order to focus on the locations that have the highest rates. The crash rates do not include crashes that occur at intersections of collectors or arterials with other collectors or arterials.

Table 3-3 Intersection Fatalities 2012-2016

Primary St	Secondary St	Year
S Olympia St	W 45th Ave	2012
W Clearwater Ave	N Union St	2012
W Canal Dr	Carmichael Dr	2014
W 36th Ave	S Vancouver St	2016
W Canal Dr	N Kent St	2016
SE Columbia Dr	Columbia Park Tr	2016
W Kennewick Ave	S Conway Pl	2016

Table 3-4 Non-Intersection Fatalities 2012-2016

Primary St	Year
SR 240	2013
W 27th Ave	2014
W Gage Blvd	2014
S Columbia Center Blvd	2015
S Washington St	2015
W Clearwater Ave	2016

Table 3-5 Intersection Average Crash Rates 2012-2016

North/South Street	East/West Street	Average Crash Rate
Center Parkway	Gage Blvd	1.38
4th Ave	Union St	1.18
Canal Dr	Columbia Center Blvd	1.05
Clearwater Ave	Union St	1.05
Gage Blvd	Steptoe St	1.05
4th Ave	Olympia St	1.00
Hildebrand Blvd	Southridge Blvd	0.99
Columbia Center Blvd	Quinault Ave	0.94
Grandridge Blvd	Young St	0.92
Canal Dr	Edison St	0.91
4th Ave	Vancouver St	0.84
45th Ave	Olympia St	0.82
10th Ave	Vancouver St	0.81
Clearwater Ave	Columbia Center Blvd	0.80
Columbia Center Blvd	Deschutes Ave	0.79
Edison St	Metaline Ave	0.78
Canal Dr	Young St	0.78

Table 3-6 Roadway Segment Average Crash Rates, 2012-2016

Roadway	Segment	Average Crash Rate
Metaline Avenue	Volland St. to Edison St.	14.64
Morain Street	Clearwater Ave. to Hood Ave.	14.28
Yelm Street	US-395 to Canal Dr.	14.18
Olympia Street	4th Ave. to Kennewick Ave.	13.68
Union Street	4th Ave. to Clearwater Ave.	11.82
Columbia Center Blvd.	Quinault Ave. to Canal Dr.	9.02
Hildebrand Blvd	Plaza Way to Southridge Blvd.	8.92
Clearwater Avenue	Union St. to Edison St.	8.53
Columbia Center Blvd.	Clearwater Ave. to Deschutes Ave.	8.35
Gage Boulevard	Grandridge Blvd. to Steptoe St.	8.22
Canal Drive	Grandridge Blvd. to Columbia Center Blvd.	8.16
Edison Street	Canal Drive to SR-240	8.04
Vista Way	Kennewick Ave. to US-395	8.04
Gage Boulevard	Center Parkway to Grandridge Blvd.	8.01
Morain Street	10th Ave. to 4th Ave.	8.01

3.3.4 Pedestrian Safety Conditions

Pedestrian conflicts with other transportation modes, particularly automobiles, are an important concern within the pedestrian system. This concern exists in Kennewick just as it does in other cities. Table 3-6 shows pedestrian crash data within the City of Kennewick between 2012 and 2016. The total number of pedestrian-related collisions during this time period was 77.

In order to enhance pedestrian safety, transportation modes should be separated as much as possible. For non-motorized users of the transportation network, especially pedestrians, facilities that enforce modal separation are keys to safety. The pedestrian system inventory's focus on arterials enables the City to see where the addition of new pedestrian facilities or the improvement of existing pedestrian facilities could help improve pedestrian safety. The pedestrian system inventory also laid the groundwork for the project recommendations discussed in the next section.

Table 3-7 Pedestrian Collisions 2012-2016

Type	Number
Fatalities	7
Injuries	67
No Injuries	3
Total	77

3.3.5 Bicycle Safety Conditions

Cyclist conflicts with other vehicles, or even with pedestrians, are a major issue in any urban transportation network. Busy arterials, sometimes not designed or constructed with non-motorized users in mind, can be dangerous. In Kennewick between 2012 and 2016, there were a total of 42 automobile collisions involving bicycles. Of these collisions there was no fatalities.

One way to improve safety conditions for cyclists is to ensure that the transportation network allows for the appropriate separation of modes. For cyclists, modal separation along high volume arterials could improve safety and increase the efficiency of the non-motorized transportation system. Some recommendations for these types of improvements are discussed in the later sections.

Table 3-8 Bicycle Collisions 2012-2016

Type	Number
Fatalities	0
Injuries	41
No Injuries	1
Total	42

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4. TRAVEL FORECASTS AND ALTERNATIVES EVALUATION

4 Travel Forecasts and Alternatives Evaluation

In addition to addressing existing needs, the City must develop its transportation system to accommodate forecast growth. The GMA requires that the transportation planning horizon be at least ten years in the future. For this current update effort, the City decided to use 2040 as the long-range horizon. The longer-range horizon year allows the City to better plan for and scale transportation facilities that are needed as the City changes over the next two decades.

The following provides an overview of the travel demand model used to create the forecasts and evaluate alternatives. The alternatives evaluations are presented, resulting in the development of the framework for the Transportation Systems Plan and improvement projects, which are presented in Chapter 5.

4.1 Development of the Travel Forecasts

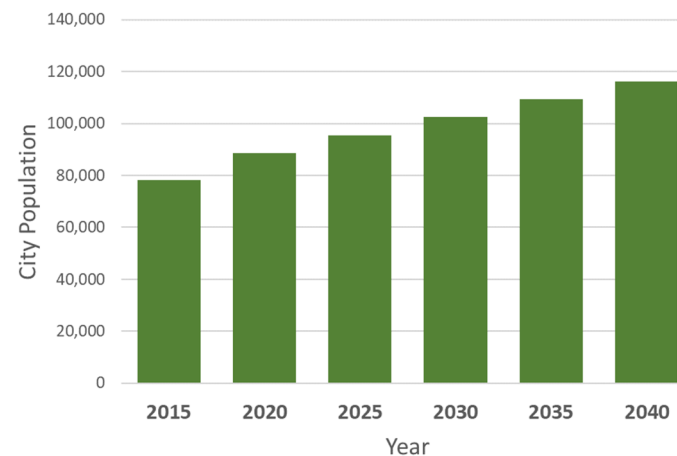
The Benton-Franklin Council of Governments (BFCOG) regional model was developed to assist in defining future transportation system needs. The model uses the TransCAD software package and forecasts weekday PM peak hour traffic volumes based on the 2025 and 2040 land use forecasts. The weekday PM peak hour typically has the highest overall travel demands and therefore, provides the basis for determining overall transportation improvement needs to support growth. The model covers all of the surrounding urban areas, including the Cities of Richland, Pasco, and West Richland. The model interfaces directly with BFCOG land use to account for growth from locations external to the City. All major transportation corridors in the region are included in the model.

The model was calibrated to match existing base year traffic volumes (2015) and then used to develop the 2025 and

2040 traffic forecasts. City, County, and State transportation improvement projects likely to be funded and built by 2025 or 2040 were included in the respective future models.

Land use in the BFCOG model is based on population forecasts in the region. The historical population growth rate for between 2005 and 2015 was 2.1 percent annually. The future population growth rate for the City is expected to be 1.6 percent annually between 2015 and 2040. The forecast was developed by Washington Office of Financial Management (2016). Figure 4-1 shows the forecasted city population in 5-year increments.

Figure 4-1 Forecast City Population Growth (2015 to 2040)



Source: Washington Office of Financial Management, 2016

4.2 Vehicle Forecast Conditions

The travel forecasts were used to identify and evaluate the necessary long-term transportation improvement projects needed to support the TSP. The identification of future needs included the analysis of future baseline traffic volumes, an assessment of existing and future level of service (LOS) deficiencies, and the development of future

traffic volumes assuming the identified transportation improvement projects are in place.

4.2.1 Baseline Travel Forecasts

Year 2025 and 2040 PM peak hour volumes were generated by the City of Kennewick travel demand model for baseline conditions. Future baseline traffic volumes are based on the assumption that only capital improvements which are currently programed are accounted for when developing the travel forecasts. Based on the analysis of baseline conditions, improvement projects are then identified to address and further issues and future LOS deficiencies.

Table 4-1 shows the baseline forecasts for 2040 for selected corridors. The growth on City corridors correspond to areas of the City that are expected to see the most land use growth. The areas in the southwest section of the City are expected to see substantial growth due to the Southridge and related developments. US 395 and Steptoe Street are the major access routes to these areas. The northwest section of the City will see growth in the Entertainment District and Vista Field areas. This will increase traffic volumes along Columbia Center Boulevard, Kellogg Street, Edison Street, and other roadways in the area. The northeast sections of the City area not anticipating major changes in land use except in spot locations north of the railroad corridor. The southeast section of the city will continue to have moderate growth as residential areas are developed.

4.2.2 Assessment Future Deficiencies

An LOS evaluation was performed for major intersections within the City to identify future LOS deficiencies. The LOS analysis was performed for the average weekday PM peak hour in the City of Kennewick. Deficiencies were determined based on the City's adopted LOS standard, which is LOS D at approaches to signalized intersections or roundabouts, and LOS E for stop-controlled intersections. State-owned

intersections have a WSDOT LOS of LOS D for overall average operations.

Table 4-1 Growth on Selected Corridors

Corridor Location	2005 ADT	2016 ADT	2040 ADT	Annual Rate (2016- 2040)
Columbia Center Blvd north of Deschutes Ave	24,800	25,600	39,700	1.8%
Edison St north of Clearwater Ave	15,100	16,100	28,200	2.4%
Clearwater Ave west of US 395	21,000	21,500	26,600	0.9%
US 395 south of 27th Ave	15,000	21,700	46,900	3.3%
Columbia Dr east of Fruitland St	18,200	20,400	20,700	0.1%
10th Avenue west of SR 397	3,700	4,100	6,300	1.8%

Source: Transpo Group 2018

Table 4-2 and Figure 4-1 show the LOS results at study intersections under future baseline conditions. During 2025 Baseline conditions ten (10) of the 23 study intersections would not meet LOS standards. During 2040 Baseline conditions 17 of the 23 study intersections would not meet standards. All 17 of these deficient intersections have had planned improvements identified that could address the deficiencies, which have been included in the TSP project list.

The project list shown in Chapter 5 also includes projects to address capacity bottlenecks or to improve safety on City roadways. Section 4.5 provides more information on framework used to create the TSP and related project list.

Table 4-2 Future 2025 and 240 Baseline Intersection LOS

#	Intersection	2025 LOS ¹	2040 LOS ¹
1	Steptoe St / Gage Blvd	D (E)*	E (F)*
2	Columbia Center Blvd / Quinalt Ave	D (E)*	F (F)*
3	Columbia Center Blvd / Grandridge Blvd	C (E)*	D (F)*
4	Columbia Center Blvd / Deschutes Ave	C (E)*	D (E)*
5	Edison St / Canal Dr	C (D)	E (F)*
6	Kellogg St / Metaline Ave	(E)	(F)*
7	Kellogg St / Deschutes Ave	(E)	(F)*
8	Kellogg St / Clearwater Ave	D (E)*	D (E)*
9	Columbia Center Blvd / 10th Ave	C (D)	C (D)
10	Kellogg St / 10th Ave	C (D)	C (D)
11	Union St / 10th Ave	C (D)	C (D)
12	Union St (Southridge Blvd) / 27th Ave	B (B)	D (F)*
13	Olsen St / 27th Ave	(F)*	(F)*
14	Fruitland St / Columbia Dr	B (D)	C (D)
15	Gum St / 10th Ave	(D)	(F)*
16	Edison St / SR 240 WB Ramps	D	D
17	US 395 / Clearwater Ave	D	F*
18	US 395 / Kennewick Ave	C	D
19	US 395 / 10th Ave	E*	F*
20	US 395 / 27th Ave	E*	F*
21	US 395 / Hildebrand Blvd	F*	F*
22	SR 397 / Columbia Dr	B	C
23	SR 397 / Gum St	(F)*	(F)*

Source: Transpo Group 2018

1. Overall Level of Service shown for signals. Worst approach LOS is shown in parenthesis for City intersections only or stop-sign controlled intersections. [*] indicates intersection is not meeting LOS standard.

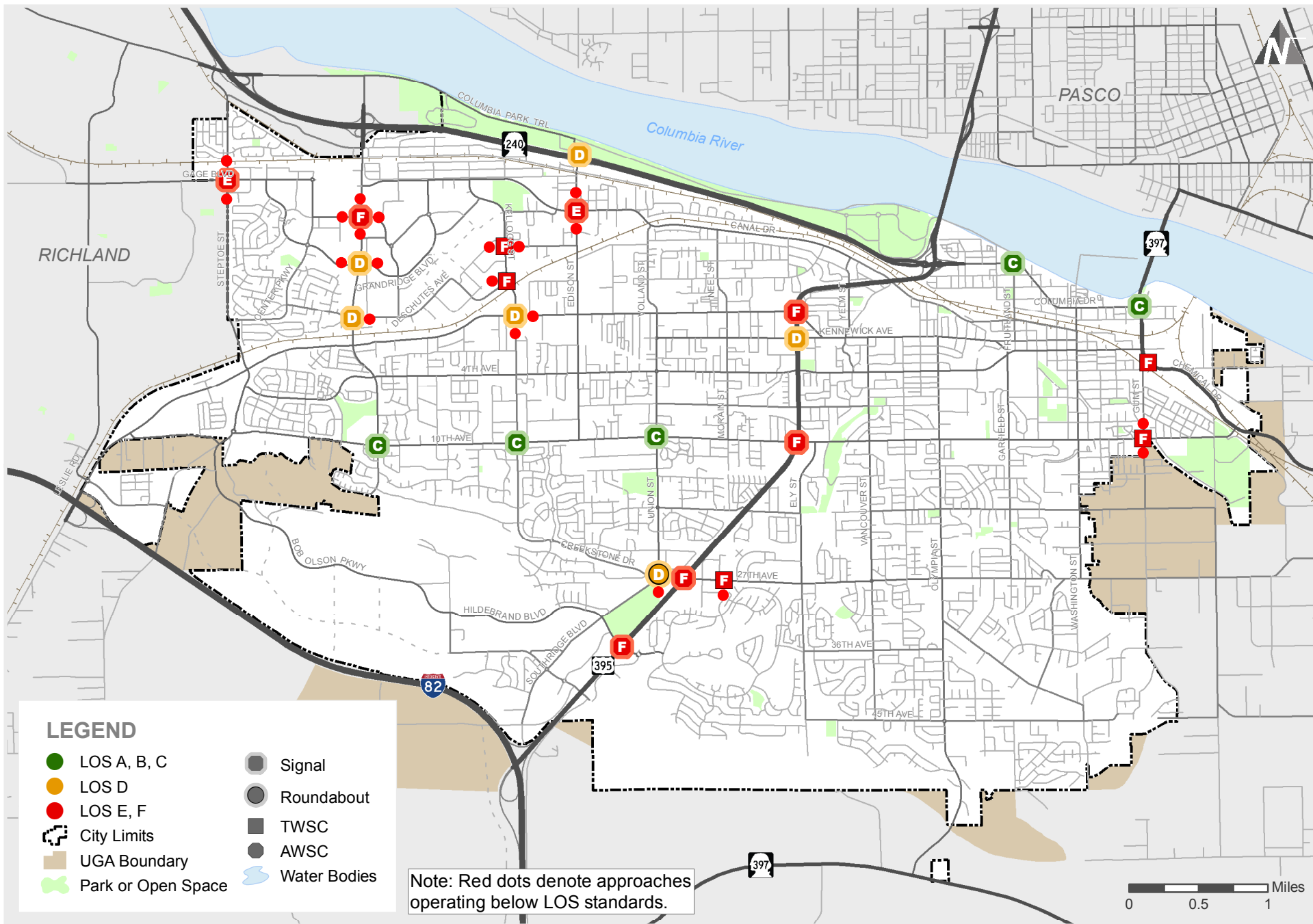
4.3 Non-Motorized Forecast Conditions

The non-motorized transportation network within the City of Kennewick and its UGA serves pedestrians, cyclists, and other types of non-motorized users. The future non-motorized transportation network contained in the Transportation Systems Plan builds upon previous planning efforts that have identified future routes for bicyclists and pedestrians. These plans identify future pedestrian and bicycle routes for the City of Kennewick through a combination of on-street facilities and off-street pathways provide the core network for walkers, cyclists, and other non-motorized users to travel.

The City of Kennewick will continue to develop pedestrian and bicycle facilities as part of its transportation system improvements. The TSP identifies the desired pedestrian and bicycle systems plans, which will guide the development and implementation of improvement projects throughout the City. The non-motorized systems plans include facilities on arterials, collectors, and local streets, as well as multi-use trails. The bicycle and pedestrian systems plans are discussed in Chapter 5.

4.4 Transit Forecast Conditions

In order to provide a comprehensive transportation system, the City of Kennewick recognizes the importance of transit. As growth and density is encouraged in the downtown core and near the Vista Field development, a frequent and reliable transit system can help move people efficiently without the use of a personal vehicle. The City's transit system plan is discussed in Chapter 5.



Forecast (2040) Intersection Operations

Kennewick Citywide Transportation Plan

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4-1

4.5 Plan Framework

Based on the forecasts of future travel in the City, the Plan Framework was established for creating its long-range multimodal street network. The framework builds from the City's prior Comprehensive Plan and Subarea Plans, as well as other agency transportation improvement programs. Below are the key themes used to create the Transportation System Plan and project list.

4.5.1 Maintain Connected Networks

The Transportation Systems Plan specifically identifies the primary and secondary routes for each of the major travel modes within the city. When layering these separate network plans together, urban corridors were classified as "Auto Priority", "Bike/Ped Priority", or "Shared Priority". This allows project funding resources to be targeted to the best types of improvements that would complete the overall system. In addition, maintenance dollars could also be prioritized based on the anticipated street functions.

4.5.2 Provide Capacity on Key Corridors

The review of the travel demand model volume forecasts and intersection operations analysis indicated that the Principal Arterials will continue to be the core vehicle routes throughout the City. Principal Arterials should provide maximum vehicle capacity with 5 lanes, or if 5 lanes are not feasible, 4 lanes with greater access control. Arterial-arterial intersections should have traffic signals with separate left-turn lanes, and if necessary dual left-turn lanes and/or right-turn lanes.

4.5.3 Bridge Non-Motorized Gaps

A review of the existing pedestrian and bicycle facilities shows that there are still gaps in the overall system. While all roads should accommodate all users, the Transportation Systems Plan focuses on projects that help bridge the existing gaps in the system.

4.5.4 Facilitate Economic Development

The transportation system can be a major component in development of economic growth in the area. The Vista Field area, Southridge, and Downtown Kennewick areas will provide added economic and populations growth to the city. In addition, a well-functioning arterial street system will promote existing and future commercial development.

4.6 Emerging Transportation Trends

In addition to formal transportation analysis and forecasting, long-range planning also includes anticipating emerging transportation trends that may change basic assumptions concerning how people travel and how transportation systems operate. Transportation-related technology has advanced quickly over the past decade, will continue to accelerate, and will create major shifts in transportation within the City of Kennewick. This section describes some of these technology-related trends and the potential impacts on Kennewick's transportation system.

4.6.1 Autonomous Vehicles (AVs)

There is a great deal of uncertainty for communities planning for autonomous vehicles. Potential outcomes carry a wide range of possibilities. Over the next 15 years, a portion of the vehicles on the City's streets and highways could be operating without drivers. It is possible that 30 to 40 years from now all, or nearly all, vehicles will be driverless or will have driverless capabilities in certain situations. The implementation of some of these technologies may be within the 2040 planning horizon, and thus the City should consider the ramifications of these technologies on its transportation network. A few key issues rise to the top of what local agencies should contemplate while preparing long-range plans.

Roadway Capacity and Safety

AVs will be able to space themselves closer together, effectively increasing the capacity of streets and highways.

This is especially true if AVs travel in narrower lanes with smaller vehicles (assuming AV-only lanes and/or AV-only urban areas). This implies that some long-range roadway capacity improvements to accommodate more vehicles could be postponed as the potential of AVs becomes realized. In addition, AVs may reduce many common accident risks.

Transit Service

Over half of the cost of operating buses is related to the driver. In the future, replacing the driver with AV technology may enable transit operators to offer more service for the same cost. Technology that clears lanes when buses approach may allow them to avoid the same congestion they now face. This would also increase service as buses will be able to run routes faster. Such technology may reduce the need for investments in rail transit infrastructure as buses may operate with close to the same freedom that trains do on dedicated rights-of-way.

On-Demand or Shared Ride Regulations

The demand for shared ride services such as Lyft and Uber may likely increase as the economics improve without drivers. Public agencies would likely need to address regulations regarding these types of services, especially those that offer pooling options for two, three or more people to ride together.

Human Services Transportation

AVs will provide independent mobility for low-income and disabled populations, reducing the need for conventional demand response services.

4.6.2 Parking Demand Shifts

It is likely that the economics of transportation will dramatically change with widespread use of on-demand or shared ride services. Car ownership in urban areas may further decrease if on-demand travel (with or without driverless vehicles) becomes a legitimate alternative. This would reduce the need for off-street parking at places of

employment or residential areas, but would increase the demand for curbside areas set aside for loading/unloading activities.

4.6.3 Connected Vehicles

Although it is not yet clear what the demand for vehicle-to-infrastructure may ultimately look like, cities might look ahead to providing infrastructure as efficient reference points. For example, light poles could become hubs of wireless communication to/from vehicles. Connected vehicle technology has the potential to optimize traffic flow as computer systems communicate with vehicles to moderate flow. Cities should monitor technologies to prepare for phased implementation of such systems.

4.6.4 Teleworking

Advances in technology and communication infrastructure would facilitate the exponential growth of teleworking in the next decade and beyond. According to recent Census data, “not traveling at all” accounts for more than two percent of the overall national mode split and is increasing at a greater rate than all other modes. Factors that are fueling this change include: improving communications and collaboration technologies; increased high-speed broadband availability; and the proliferation of web-based applications.

The land use and transportation implications of this trend are wide ranging including: reduced vehicle-miles traveled, reduced roadway congestion; reduced greenhouse gas emissions; and, greater number of employees choosing to live further from job sites.

4.6.5 Transportation Funding Methods

The traditional transportation funding method of taxing fuels has become unsustainable as transportation technology changes. The emerging funding trends point to user fees in the form of facility tolling or pay-per-mile taxes. These “user

fees” would directly impact commuting costs and incentivize less frequent or shorter vehicle trips.

4.6.6 Emerging Trends Takeaways

It remains unclear whether these new technologies (or others) will be implemented by agencies, vehicle manufacturers, and related industries. The shifts may be relatively quick (within a decade) or take much longer to develop. The following list highlights the emerging trends takeaways as the City of Kennewick plans for the future.

- Growth in commute vehicle trips is likely to decline over time as teleworking technology improves.
- Agencies can play a major role in how connected vehicle infrastructure gets implemented, which can lead to better traffic management.
- Growth in car ownership is likely to continue to decline due to on-demand services and commuting costs. This would likely increase demands for non-motorized and transit modes. This would also decrease the need for off-street parking.
- Demand for curb space for loading/unloading for AV and on-demand services would likely increase dramatically. This could impact on-street parking or the design of standard street cross-sections.

[Chapter 5 Photo Page]

5. TRANSPORTATION SYSTEMS PLAN

5 Transportation Systems Plan

The Transportation Systems Plan provides the blueprint for improvement projects and programs to meet the multimodal transportation needs of the community. Each mode has a separate systems plan that harmonize together to build the overall City plan. The Transportation Systems Plan is based on the evaluation of existing system deficiencies and forecasts of future travel demands. The improvement projects and programs must be balanced with the availability of funding, as discussed in Chapter 6.

The Transportation Systems Plan is organized and presented by travel mode to provide an overview of key components of each element. However, the Plan is integrated to create a multimodal transportation system. For example, improvements along arterial streets and highways also incorporate appropriate non-motorized improvements. The non-motorized systems were defined to support access to transit, and to provide alternatives to automobile travel within the City. As improvement projects move toward implementation, the City will conduct detailed design studies, supported with project-level environmental review, and input from the public and other stakeholders.

A key implementation tool of the Transportation Systems Plan is a defined network classification system. Network classifications include the Roadway Functional Classification, the Travel Context Classification, and the Truck Route Classification. These classifications directly influence the street cross-section design standards as City streets are reconstructed, improved, or enhanced.

Each of the mode plans illustrate how the City of Kennewick's transportation system supports, and relies on, transportation facilities and programs provided by other agencies. These include new or improved interchanges with US 395, consistency of the arterial and collector road system, connectivity of trails and non-motorized transportation systems, enhanced transit service and

facilities, and rideshare programs. The City will continue to coordinate with WSDOT, BFCOG, and adjacent cities develop a comprehensive multimodal transportation system for the Kennewick area.

Outline of Plan Maps

Network Classifications

Functional Classification
Travel Context Classification
Truck Route Classification

System Plan Maps

Street and Highway System Plan
Pedestrian System Plan
Bicycle System Plan

Improvement Project Maps

Transportation Projects

5.1 Network Classifications

Network classifications are one of the key implementation tools of the Transportation System Plans by establishing priorities. It is unreasonable and uneconomical to build each street to accommodate every function and user and so priorities must be set. The Functional Classification identifies whether mobility or access is a priority for each street. The Travel Context Classification identifies whether auto, bikes, or pedestrians are the priority for each street. The Truck Route Classification identifies routes that should be designed to accommodate regular truck activity. The following sections provide more details on these network classifications.

5.1.1 Street Functional Classification

Roadways within a network are often grouped, or classified, with other roadways sharing similar characteristics of purpose, design, and function. Cities create functional classifications to ensure that roadways are built and maintained in accordance with their relationship to the surrounding land use and that adequate connectivity exists between roadways with lower capacities and more local access to roadways with higher capacities and greater circulation.

Kennewick Municipal Code 13.04.010 outlines four roadway classifications that are appropriate for the City of Kennewick. The four classifications include Principal Arterial, Minor Arterial, Collectors, and Local Streets. Table 5-1 provides descriptions of the City's functional classifications and corresponding characteristics.

As can be seen in Figure 5-1 a hierarchy exists in the functional classification structure that is based on a direct relationship between the function of the roadway and the surrounding land uses and the relationship between mobility and access. For example, commercial developments will generally locate along arterials or collectors due to a high amount of mobility with certain restrictions on access.

Likewise, it is desirable to have parks, schools, and residential homes located along collector or local streets due to lower traffic volumes and a high degree of access.

The functional classification of roadways within a City may change over time as the City expands and land uses change. The City of Kennewick is expected to experience growth in the next 20 years that will require that new roadways be built and that the classifications of some existing roadways be changed. Figure 5-2 illustrates the roadway functional classification within the City.

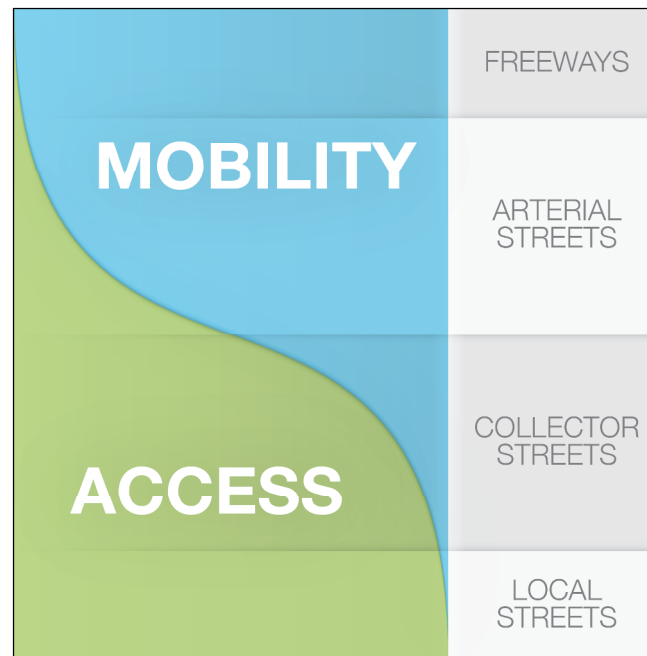
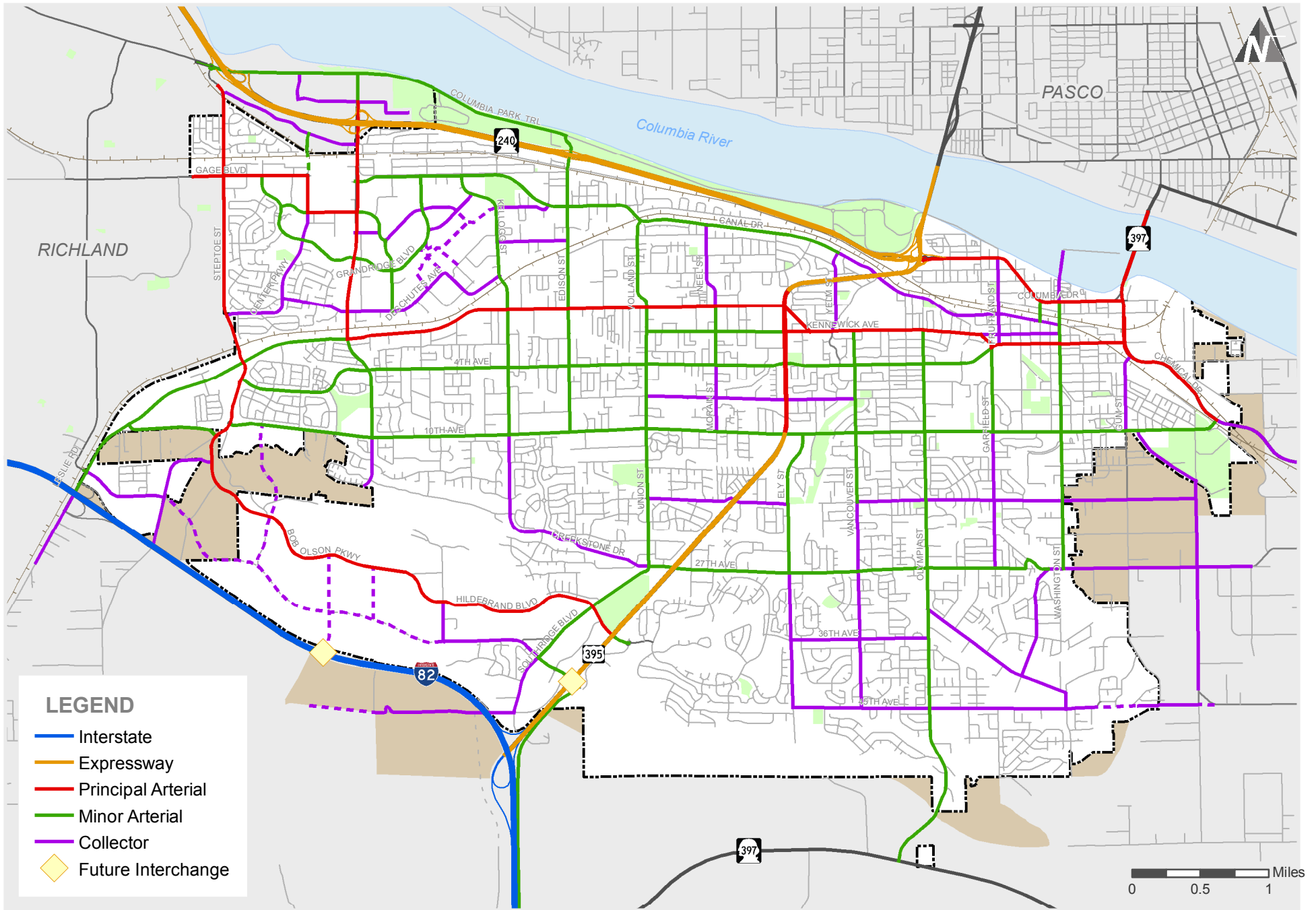


Figure 5-1 Functional Classification Relationship between Mobility and Access



Roadway Functional Classification

Kennewick Citywide Transportation Plan

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5-2

Table 5-1 Functional Classification Definitions

Functional Classification	Definition
Interstate	Interstates are the highest classification of roadways with primary purpose of traffic movement over large areas. Access is highly controlled and operating speeds are 60 mph or higher.
Expressway	Expressways are similar to interstates with a primary purpose of traffic movement over large areas. Access is highly controlled and operating speeds are typically 45 mph or higher.
Principal Arterial	Principal arterials have the primary purpose for traffic movement between and through communities. Their general characteristics include moderate to high speeds that are generally 35 to 55 mph, high traffic generators, and no on-street parking.
Minor Arterial	Minor arterials have the primary purpose for traffic movement between and through communities and secondarily for land access. Their general characteristics include moderate speeds (30 to 40 mph) and moderate to high traffic volumes (1,500 to 16,000 vehicles per day), some restriction on traffic movements, controlled driveway spacing and on-street parking is generally prohibited.
Collectors	Collectors are streets that their primary function is to collect and distribute traffic between the local street system and the arterial street system. Collectors also provide for land access and inter-neighborhood traffic movement. Their general characteristics include low speeds (25 to 30 mph), low to moderate traffic volumes (500 to 5,000 vehicles per day), limited regulation of access control, and limited on-street parking
Local Road	Locals are streets that primarily serve direct land access with the secondary function of traffic movement. Their general characteristics include: low speeds (25 mph), low traffic volumes (less than 1,500 vehicles per day), few access controls, and parking is generally permitted.

Source: Kennewick Municipal Code 13.04.010

Other Jurisdiction Classifications

Three other jurisdictions manage roadways that tie into or pass through the City of Kennewick including the City of Richland, Benton County, and WSDOT. All existing inter-jurisdictional routes are consistent in classification.

Access Management and Vehicle Capacity

The term access management relates directly to the functional classification. Higher mobility means that greater access control is necessary, meaning better management of streets and driveways accessing the street. That access control on City streets is call Access Management. Many Principal Arterials within the city have a high number of access points (driveways and streets) which inherently limit mobility, and ultimately vehicle capacity. In other words, better aligning the functional classification and access management will improve vehicle capacity on the arterial street corridors.

5.1.2 Travel Context Classification

The Transportation System Plan was developed using traditional planning techniques to establish a foundation with key connection and facility types added to develop a holistic vision of a safe and attractive motorized and non-motorized transportation system. The City of Kennewick will continue to develop pedestrian and bicycle facilities as part of its transportation system improvements, in addition to expanding vehicle capacity at key intersections and streets.

The type and size of pedestrian, bicycle, and vehicle facilities is dependent on the travel context of the street. The Travel Context Classification along with the Functional Classification should be referenced in designing the City's street network. For example, Bike/Ped Priority streets may be allowed to have narrower traffic lanes, slower posted speeds, and more frequent crosswalks.

The following describes the three Travel Context Classifications that are shown in Figure 5-3.

Auto Priority Classification

The Auto Priority class emphasizes automobile mobility over other modes. Pedestrian and bicycle facilities are focused on facilitating local access, however overall non-motorized travel would be more comfortable on alternate parallel routes. Posted speed limits are typically higher at 35 to 45 mph, and the number of vehicle lanes are higher.

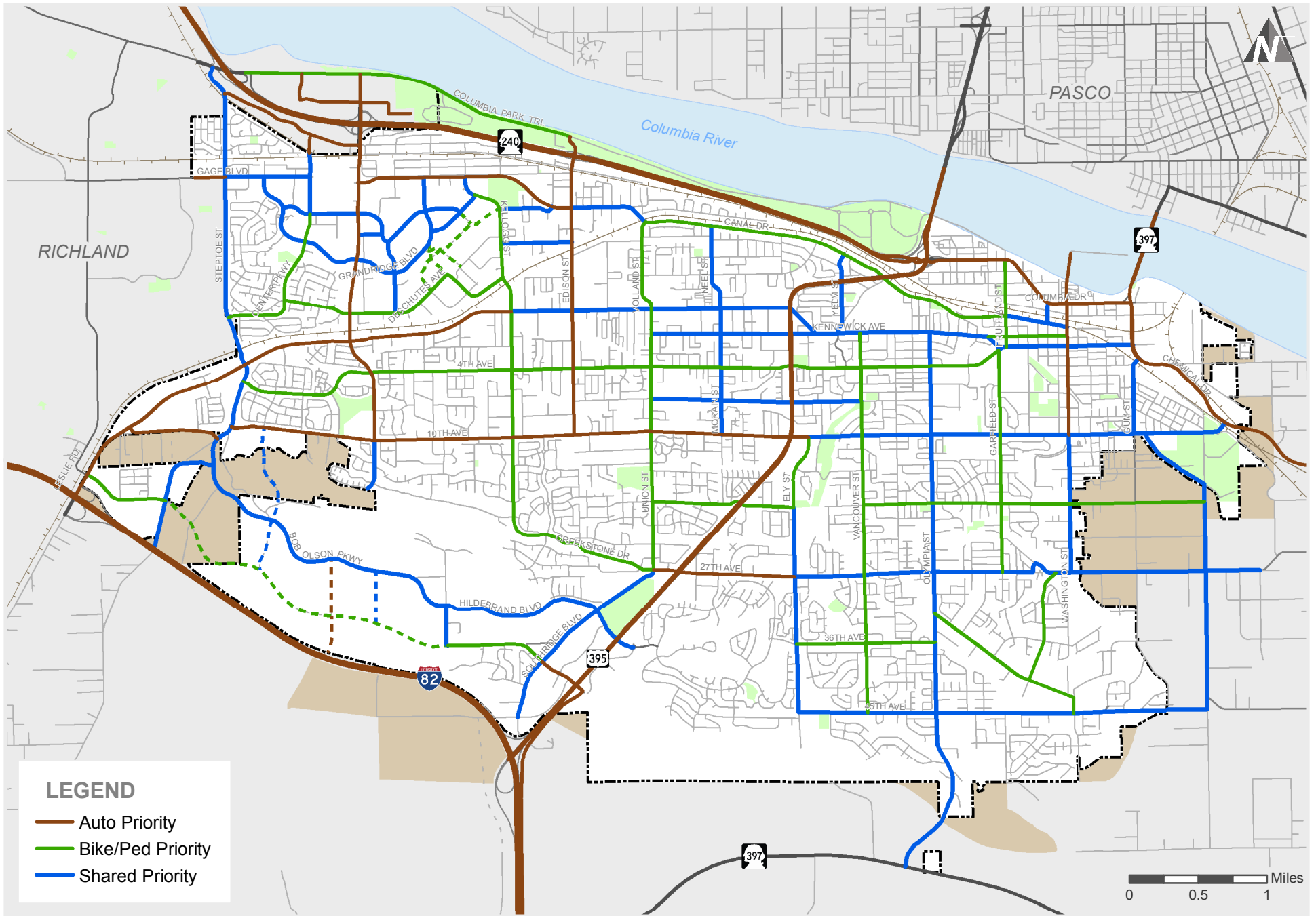
Bike/Ped Priority Classification

The Bike/Ped Priority class emphasizes bicycle and pedestrian mobility over other modes. Posted vehicle speeds would typically be 30 mph or lower and the number of vehicle lanes would be minimized. The travel context along these routes would be to provide comfortable experience for pedestrians and cyclists.

Shared Priority Classification

The Shared Priority class represents corridors where vehicle mobility is balanced with non-motorized travel comfort. This

type of street has been referred to as a "complete street", though all streets should have basic facilities or accommodations for each mode. Posted speeds would be typically 30 to 35 mph.



Travel Context Classification

Kennewick Citywide Transportation Plan

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5.1.3 Truck Route Classification

The City of Kennewick has a significant level of truck activity. With increased commercial and employment growth forecast through 2040, the level of truck activity will also increase. In order to systematically address the needs of future truck travel, the City has adopted a defined system of truck routes.

The safe and efficient movement of freight and goods is vital to the economy of the region and to the City of Kennewick. The geographic area in which Kennewick is located is a major source of agricultural commodities which must be shipped by rail, water, air, or truck to loading and unloading facilities, ports, and processing plants in Kennewick and across the world. Much of the produce and agricultural products are perishable and must be moved quickly to avoid spoilage. A large portion of freight is shipped by rail or by barge to ports located up and down the Snake and Columbia Rivers. The roadways that provide access to these ports are vitally important to the successful movement of freight. Pressure to remove some of the dams on the Snake River, lawsuits to restrict dredging in regional waterways, and an increasing financial burden on companies that operate short rail lines could place ever higher demands on truck routes to move goods and freight in the future,

As shown in Figure 5-4, the Truck Route system generally provides north-south and east-west regional connections through the City of Kennewick. The Truck Route also connects freight generating areas within the City, such as the commercial areas near Columbia Center Boulevard, Clearwater Avenue, and Downtown.

As mentioned in Chapter 3, WSDOT's Freight and Goods Transportation System (FGTS) classifies state highways, county roads, and city arterials according to average annual gross truck tonnage. The T-1 and T-2 corridors shown in Figure 3-6 in the greater Kennewick area are designated as part of a Strategic Freight Corridor.

5.1.4 Other Street Classifications

The following classifications are included as reference. Federal and state classification systems serve different purposes from the City classifications, particularly as it relates to funding.

Federal Functional Classification

The Federal Functional Classification system provides a hierarchy of roadways as defined by the Federal Highway Administration (FHWA). This classification system defines the role of travel through a network of roadways, rather than focusing on individual roadways. As a result, the Federal Functional Classification may differ from the City's Functional Classification.

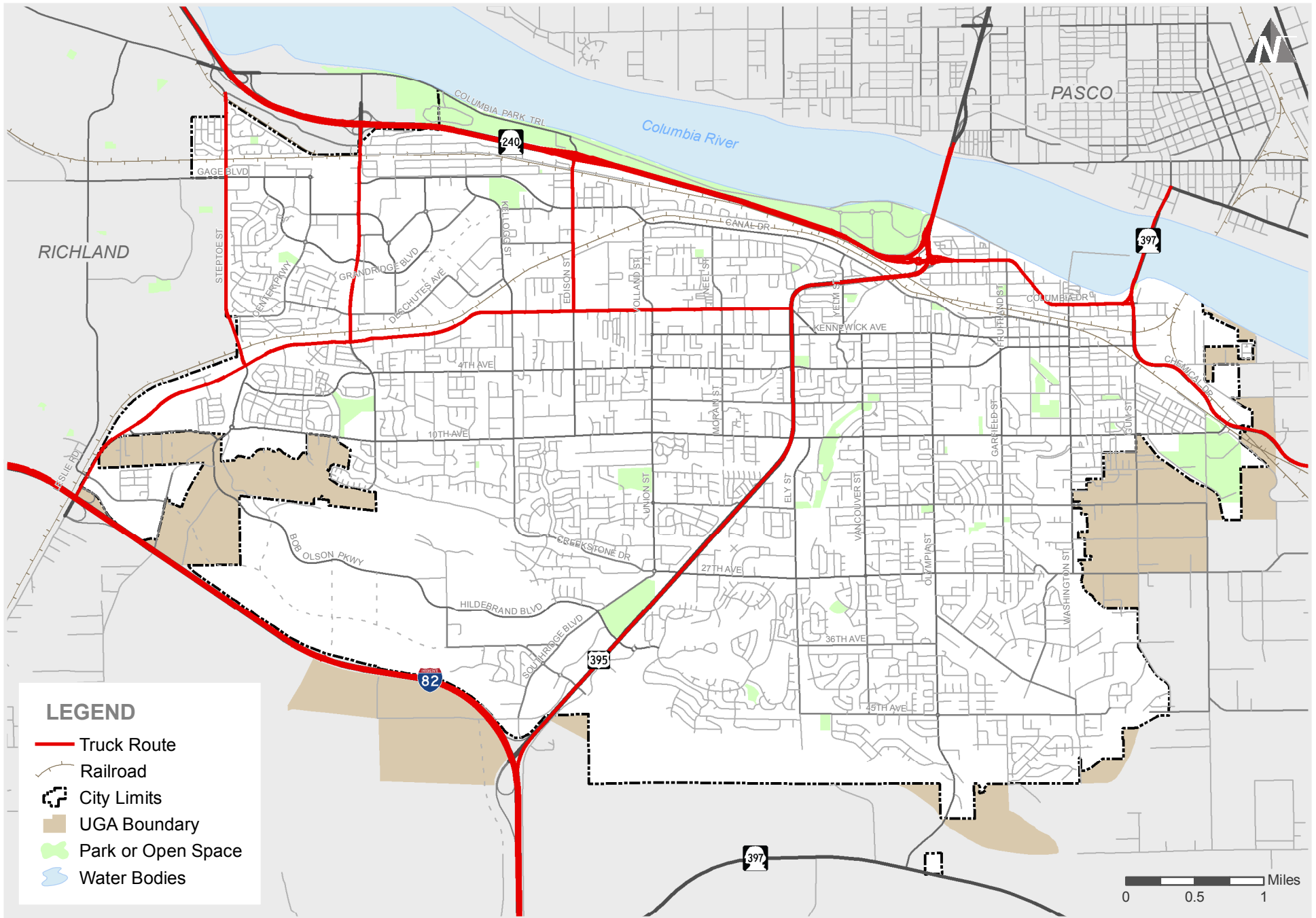
Changes to the Federal Functional Classification may be submitted through the Washington State Department of Transportation (WSDOT).

National Highway System

The National Highway System (NHS) includes the Interstate Highway System as well as other roads important to the nation's economy, defense, and mobility as defined by the Federal Highway Administration (FHWA). Both I-82 and US 395 and are classified as NHS facilities.

Highways of Statewide Significance

WSDOT designates interstate highways and other principal arterials that are needed to connect major communities in the state as Highways of Statewide Significance (HSS). This designation assists with the allocation of some state and federal funding. These roadways typically serve corridor movements having travel characteristics indicative of substantial statewide and interstate travel.



Truck Route Classification

Kennewick Citywide Transportation Plan

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5-4

5.2 System Plans by Travel Mode

The Kennewick Transportation System Plan combines the system plans from three different travel modes: vehicles, pedestrians, and bicycles. The following sections highlight detail included in each of the system plans: Highway and Street System Plan, Pedestrian System Plan, and Bicycle System Plan.

5.2.1 Street and Highway System Plan

The streets within a city are like the blood vessels in a living organism. Like the arteries that facilitate the movement of life sustaining blood in a living organism, the arterials and streets of a city facilitate the movement of freight, pedestrians, bicyclists, motorists, and passengers. A healthy arterial and roadway network allows laborers to travel to and from work, grocery store shelves to be re-supplied, children to be transported to and from school, and emergency services to reach those that desperately need them. A street system that is inadequate or poorly maintained can retard the growth of a city and decrease the livability of the community.

Figure 5-5 highlights the highway and street system envisioned for the City of Kennewick. This map shows the ultimate number of lanes for each of the roadways in the system assuming the TSP is built to completion. In other words, this map is meant to show the ultimate size and configuration of area roadways. This aids City staff in determining frontage needs for new development and other related decisions.

Columbia Center Boulevard is anticipated to have 3 lanes in each direction, with center left-turn lanes and raised medians, to facilitate expected traffic volumes in the area.

US 395 is anticipated to remain at 2 lanes in each direction at most locations within the City of Kennewick. At the southern end of the City, auxiliary lanes may be added in the future associated with the new Ridgeline Interchange.

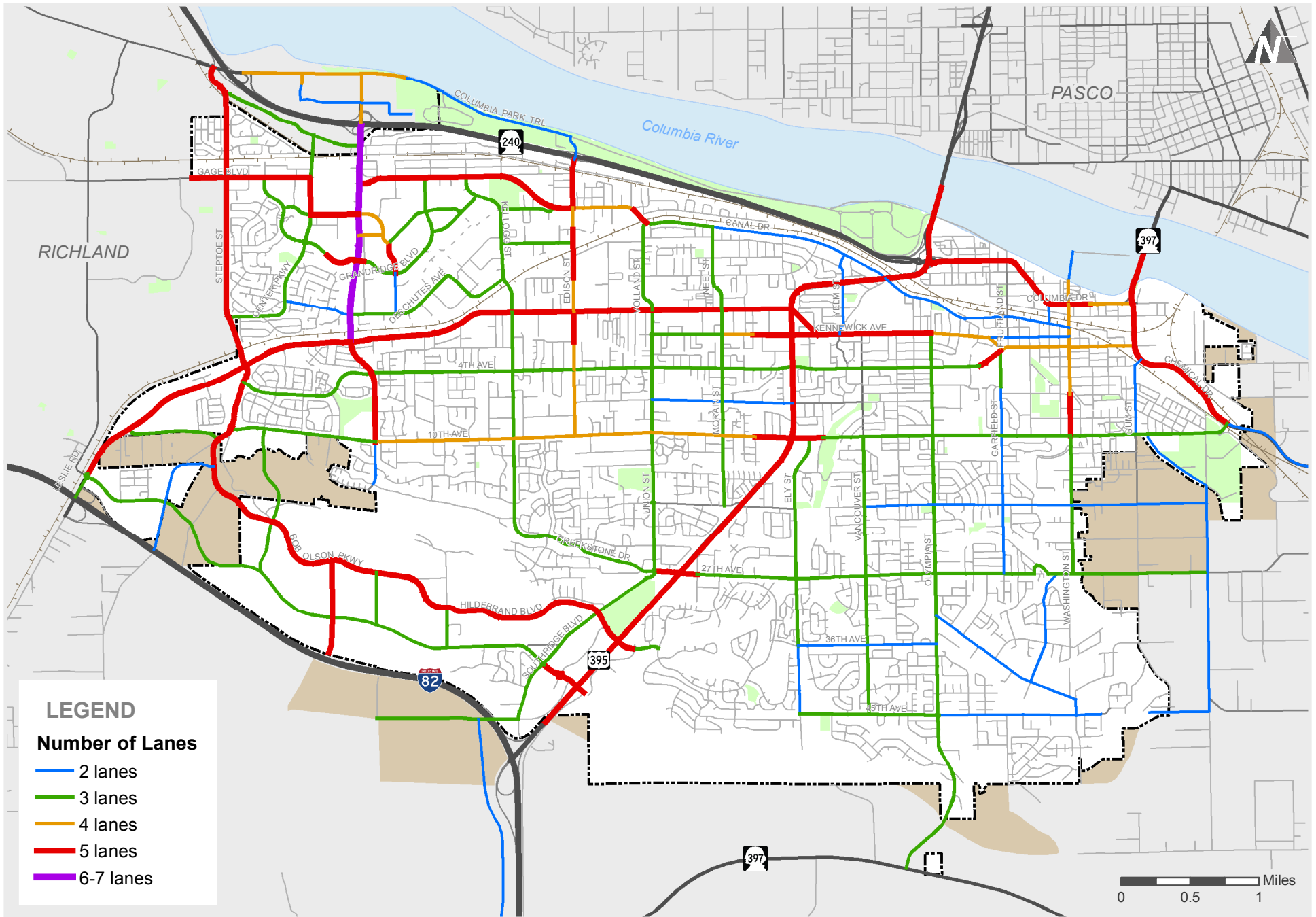
Other roadways that are or will be 5-lane facilities are Clearwater Avenue, Steptoe Street, Gage Boulevard, Canal Drive, Edison Street, Bob Olson Parkway, Kennewick Avenue, Columbia Drive and SR 397. In addition, the new Center Parkway associated with the new I-82 Center Parkway interchange is expected to be 5 lanes.

Roadways that are shown as 4-lane facilities are typically streets where widening to 5 lanes is unfeasible. Streets with only 4 lanes include Edison Street, Canal Drive, 10th Avenue, Kennewick Avenue, and Washington Street. In some cases, 4-lane street corridors may be good candidates for “road diets” where streets are converted to 3-lane facilities (one lane in each direction, with center left-turn lane). These are done primarily to improve safety along the corridor without major reductions in vehicle capacity. However, no road diets have been identified for Kennewick in this TSP.

The remaining arterials and collectors are shown to have 2 or 3 lanes.

Street Design Guidelines

Street standards are created based on roadway functional classification and travel context classification to ensure that the function of the roadway is reflected in the design of the roadway. Street standards ensure that street design is consistent with the look and feel of the surrounding land use, meets user expectations for the area through which they are traveling, and meets the safety requirements of the City and other agencies. Street standards also incorporate design principles that account for the safe movement of pedestrians and cyclists. The City of Kennewick provides street design guidelines in separate engineering documents.



Highway and Street System Kennewick Citywide Transportation Plan

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5.2.2 Pedestrian System Plan

In developing the Pedestrian System Plan, an emphasis was placed on the importance of providing connecting facilities. This can only be accomplished by building sidewalks where they are not currently in place, especially along major streets where pedestrian activity exists or likely to occur and where transit operates. To help provide this comprehensive network of well-maintained pedestrian facilities, the Pedestrian System element of the Kennewick TSP contains a priority system plan for the City, as shown in Figure 5-6. The two classifications are:

- Primary pedestrian routes indicate those corridors that have the highest priority for establishing a completely connected sidewalk and trail network.
- Secondary pedestrian routes indicate the arterials and collector streets that also should have basic pedestrian facilities.

The street design standards will indicate the type of pedestrian facilities based on the Functional Classification and Travel Context Classification of the street segment. Most of the additional pedestrian facilities will be constructed as part of associated roadway projects. These may be constructed as part of developer frontage requirements or as part of a capital project by the City of Kennewick or another agency. In some corridors, pedestrian facilities will be provided through development of multiuse trails separated from the travel lanes.

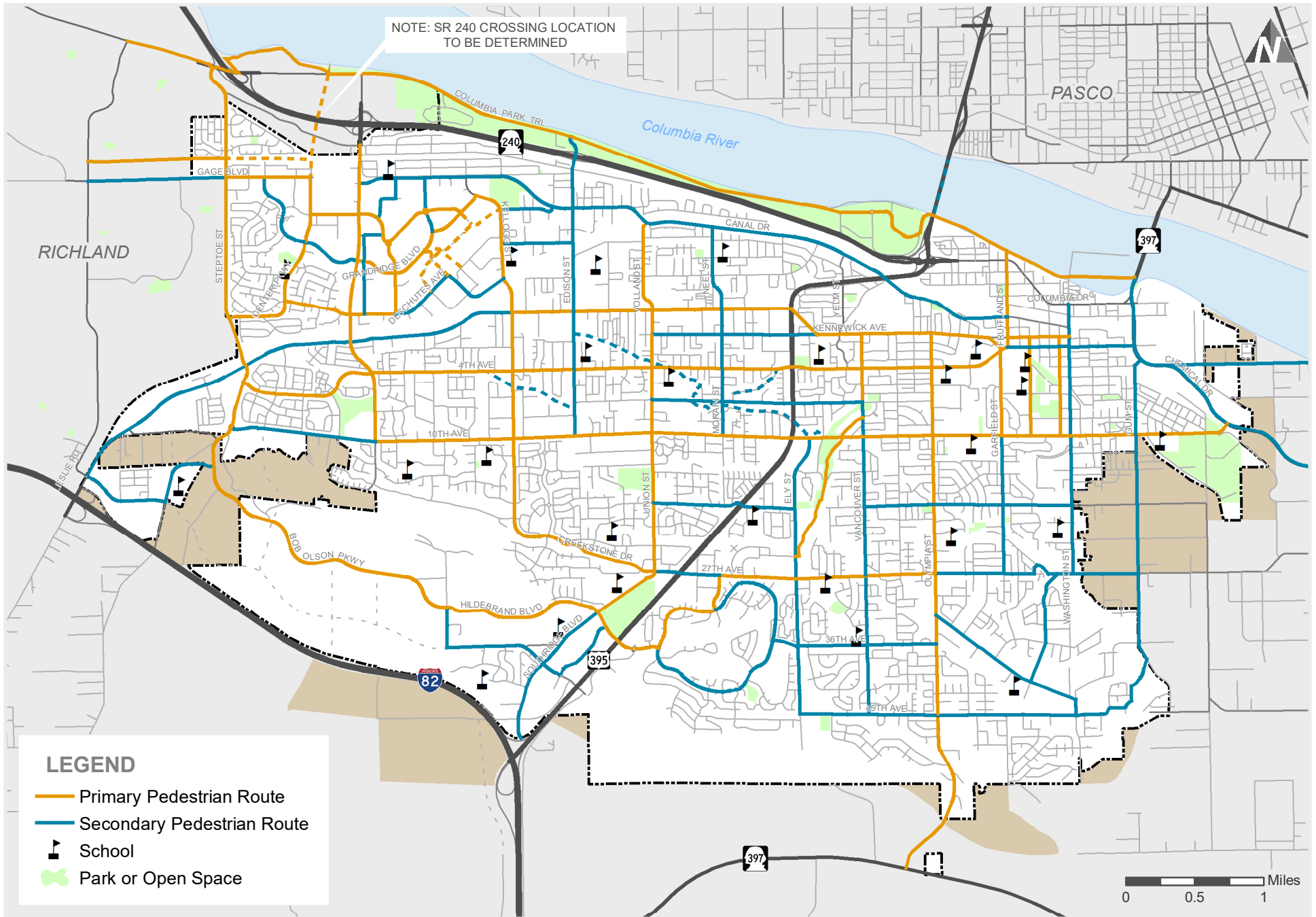
Safe Routes to Schools

The Pedestrian System is meant to provide a backbone of pedestrian facilities throughout the City of Kennewick. However, it is also recognized that safe routes to schools on neighborhood streets would also be a priority. The Pedestrian System Plan is meant to be complement rather than compete with safe-routes-to-school travel networks.

Sidewalk Construction

In implementing the TSP pedestrian element, several methods of providing sidewalks or shared-use pathways are currently available to the City:

- *Private Development of Properties and Subdivisions.* All new streets are required to have sidewalks. Most developing properties are required to construct sidewalks on abutting street frontages as part of the building permit process. The majority of new sidewalks are constructed in this manner.
- *City-funded Street Improvement Projects.* The City will typically construct sidewalks as part of a street improvement project that brings a street up to urban standards. City- and grant-funded shared-use path improvements including trail connections between the various parks and along canal rights-of-way.
- *Assessed Projects.* An assessed project involves the direct financial participation of abutting or nearby property owners to fund the construction of public improvements. This is implemented through the creation of an assessment district called a Local Improvement District. Individual properties can also be assessed for the improvements required along their own frontage.
- *Inclusion in Current Transportation Improvement Program.* The TIP should be updated with transportation system projects (sidewalk, multi-use path, bicycle lane and shared travel lane improvements) as prioritized in the TSP. Within the TIP Kennewick should define a new section titled "Pedestrian Improvements and ADA Compliance Sidewalk Repair and Rehabilitation.
- *State Coordination.* Coordination with WSDOT and BFCOG is essential to assure that adequate pedestrian facilities are included in all WSDOT improvements to SR 240 and US 395.



Pedestrian System Plan

Kennewick Citywide Transportation Plan

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Pedestrian Crossings

Pedestrian crossings play a critical role in creating a connected pedestrian system. High-volume arterials can present barriers to pedestrian mobility even when sidewalks or trails are included on sides of the street. Pedestrians need to cross the street to reach destinations such as schools, transit stops, or other community locations.

Traffic signals and roundabouts provide safe opportunities for pedestrian crossings. However, often the most convenient crossing location is not aligned with an intersection traffic signal or roundabout. Therefore, specific pedestrian crossing facilities are used along arterials to provide a safe location for crossing. These facilities include:

- Crosswalk with rapid flashing beacons
- High-Intensity Activated Crosswalk (HAWK) beacons
- Pedestrian-actuated traffic signal

The City has identified the following corridors as priority corridors for additional pedestrian crossings. These include:

- Clearwater Avenue
- 10th Avenue
- Columbia Drive
- Steptoe Street
- Ely Street
- Washington Street
- Olympia Street

Pedestrian crossings improvements are typically funded as part as an annual safety improvement program. Potential new crossings will be evaluated on a regular basis to determine the next improvement location. In addition to new crossings, existing pedestrian crossing facilities may also need to be upgraded to safety standards. The City will consider existing and new locations as part of the improvement program.

5.2.3 Bicycle System Plan

The bicycle system plan provides a comprehensive network of attractive bicycle facilities between the City's residential neighborhoods, the transit system, employment areas, schools, and parks. The bicycle system plan is intended to serve both recreational cyclists as well as cyclists using the system as a means of transportation to work, school, or shopping destinations.

In developing the Bicycle System Plan, a continuous bicycle network was developed as shown in Figure 5-7. The two classifications shown are:

- *Primary bicycle routes* indicate those corridors that have the highest priority for establishing a completely connected bicycle facility network.
- *Secondary bicycle routes* indicate the arterials and collector streets that also should have a priority to have basic bicycle facilities.

Of these designated routes, multi-use trails, protected bike lanes, buffered bike lanes, bike lanes, bike routes with sharrows, and bicycle boulevards on lower volume roadways are recommended. Coloring the pavement within the facilities, particularly at intersections, helps to increase bicyclist visibility, identify conflict zones, reinforce priority for bicyclists on the road. Double buffered bike lanes may also be recommended in street segments where on-street parking is present and where roadway widths permit. The type of bicycle facility will be dependent on the Functional Classification and Travel Context Classification of the streets.

High-quality modal separation, such as protected and/or buffered bike lanes are appropriate on roads with higher volumes, higher speeds and wide shoulders. Bike routes with sharrows and bike boulevards are appropriate facilities on low speed, low volume roads that provide continuous

routes. Specific project level planning and engineering studies are still required to determine feasibility on a project-by-project basis. Bicycle facilities would be along most key arterials, excluding most Principal Arterials due to high vehicle and truck volumes and limited right-of-way.

The main east-west bicycle corridors, from north to south, would be:

- Columbia Park Trail
- Canal Drive
- 4th Avenue
- 10th Avenue
- Bob Olson Parkway/Hildebrand Boulevard

The main north-south bicycle corridors, from east to west, would be:

- Olympia Street
- Ely Street
- Volland Street
- Kellogg Street
- Steptoe Street

Direct connections to the following multi-use trails with bike paths are also provided:

- Columbia Park Trail
- Steptoe Street
- Sacagawea Heritage Trail
- Spirit of America Trail

Chapter 3 mentioned barriers to bicycle travel in the City. The City of Richland is considering concepts for a non-motorized bridge across SR 240 connecting the Columbia Center Mall area to the Sacagawea Heritage Trail. Related to this, the City of Kennewick is considering an extension of the Keene Trail to the Columbia Center Mall area. Both of these concepts would remove existing barriers to bike travel in the northwestern part of the city.

The following section provides high-level planning guidance related to bicycle system planning for the City of Kennewick. This material is included in the Transportation System Plan to help future City staff, elected officials, and citizens understand the various elements of Bicycle system planning.

Bicycle Friendly Community

The League of American Bicyclists promotes guidance to make bicycling a real transportation and recreation option for all people. It is called the “5 E’s for a Bicycle Friendly America”² and contain the following points:

- **Engineering:** Create safe and convenient facilities to ride and park a bicycle
- **Education:** Give people of all ages and abilities the skills and confidence to ride
- **Encouragement:** Create a strong bike culture that welcomes and celebrates bicycling
- **Enforcement:** Ensure that roads and trails are safe for all users
- **Evaluation/Planning:** Plan for bicycling to be a safe and viable transportation option.

This TSP document addresses two of the E’s with engineering and evaluation/planning. The Bicycle System Plan creates a safe and convenient network. The next section also discusses how bicycle facilities should be engineered to address all bicycle user groups. The following section then discusses types of facilities that can be implemented to create a safe and viable transportation option.

Bicycle User Groups

There are a variety of bicyclists traveling within the study area, depending on their skills, confidence and preferences. This Plan proposes bicycle facilities that aim to entice more people to cycle, and to improve the safety, comfort and convenience for people on bicycles. In order to plan facilities that accomplish these goals, it is useful to examine the market for bicyclists and potential bicyclists. Roger Geller from the City of Portland, Oregon, has defined the bicycling market in a way that many planners across the United States now use. Geller suggests that bicyclists and potential bicyclists fall into the following categories³:

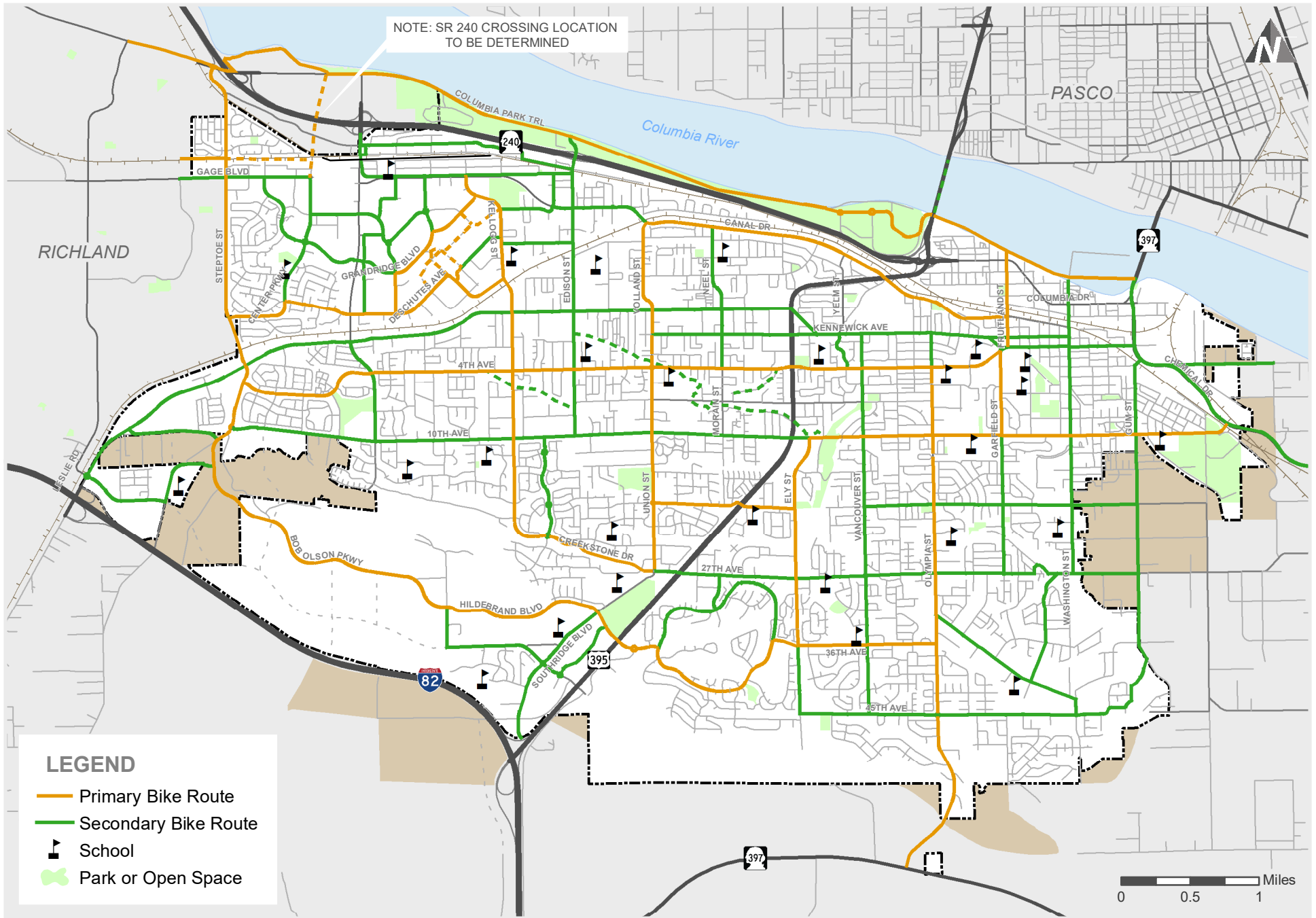
Strong and Fearless: These are expert riders that will ride on just about any street anywhere whether any designated bikeway exists or not. This category likely represents a very small portion of the people. Geller estimates that this group is less than 1% of the population.

Enthusied and Confident: These cyclists want to ride more. They prefer riding on paths, streets with bike lanes or quiet residential streets. They will bicycle more as more bike lanes and paths are put in. This is likely to be a small population, but much larger than the Strong and Fearless. Geller estimates this group to be about 7% of the population.

Interested but Concerned: These people like the idea of bicycling, but only feel comfortable on paths, and bike lanes with a higher level of separation from motor vehicle traffic than basic bike lanes. This is likely the majority of people. Surveys have shown many women to fall into this category. Geller estimates this group to be about 60% of the population.

² See League of American Bicyclists, www.bikeleague.org, accessed 2018

³ Jennifer Dill, Nathan McNeil, “Four Types of Cyclists”, Working Paper, Portland State University, 2012



Bicycle System Plan

Kennewick Citywide Transportation Plan

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No Way, No How: These people aren't interested in bicycling under any conditions. With excellent facilities and enough people bicycling to create a strong culture of bicycling for every day needs, some of these people may reconsider. But they are the last on the market for bicycling. Geller estimates this group to be about 33% of the population.

Given these bicyclist types, the City of Kennewick aims to improve facilities for the Enthused and Confident, but will also concentrate efforts on the Interested but Concerned. At the same time, the City doesn't want to create situations where the Strong and Fearless feel impeded. Their right to use any street should remain.

In order to attract more people to bicycling, the City needs to expand beyond basic bike lanes and bike routes. For instance, implementing higher quality facilities such as multi-use trails, protected bike lanes, buffered bike lanes, and bicycle boulevards should go a long way to get the Enthused and Confident to ride more. Bike routes with sharrows, preferably greenback sharrows, is recommended where installation of a bike lane is not possible. These types of bicycle facilities are discussed below.

Bicycle Facilities

The City of Kennewick can begin more proactive planning for bicycle facilities by first clarifying the definitions of the various bicycle facilities, especially for the on-street bicycle system. Figure 5-8 illustrates the basic forms of bikeway facilities as defined by:

- American Association of State Highway and Transportation Officials (AASHTO) Guide for the Development of Bicycle Facilities, 2012
- National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide, 2014

- Federal Highway Administration's (FHWA) Separated Bike Lanes Planning & Design Guide, 2015
- NACTO Designing for All Ages & Abilities (2017)
- FHWA Manual on Uniform Traffic Control Devices (MUTCD), 2009 (Pavement markings and signing guidance)

Consistent with these guidelines, the following are definitions of terms concerning bicycle facilities:

Bikeway is a generic term for any road, street, path that in some manner is specifically designated for bicycle travel, regardless of whether such facilities are designated for the exclusive bicycle use or are to be shared with other travel modes.

Bicycle Facilities is a general term denoting improvements and provisions that accommodate or encourage bicycling, including parking and storage facilities, and shared roadways not specifically defined for bicycle use.

Multi-use paths/trails should generally be designed as separated facilities away from parallel streets. They are commonly planned along rights-of-way such as waterways, utility corridors, railroads, and the like that offer continuous separated riding opportunities. Users may include pedestrians (including skaters, users of manual and motorized wheelchairs, and joggers) and other authorized motorized and non-motorized users.

Protected bike lanes, sometime called "separated bike lanes" or "cycle tracks" provide a physical barrier between the bike lane and the adjacent travel lanes, parking lanes, and sidewalks. They are most effective in attracting users who are concerned about conflicts with motorized traffic. Protected bike lanes may be one-way or two-way. They may also be at the level of the street, at the level of the sidewalk,

or between the two. If they are at the sidewalk level, different pavement colors and textures separate the bike lanes from the sidewalks. If at the street level, they can be separated from the travel lanes by physical barriers. If there is on-street parking they are placed between the sidewalk and parking.

Bicycle lanes are a portion of the roadway designated for preferential use by bicyclists; they have been designated by striping, signage, and pavement markings. Bike lanes run adjacent to the travel lanes and flows in the same direction as motor vehicle traffic. Bike lanes are typically on the right side of the street, between the adjacent travel lane and curb, road edge, or parking lane.

Buffered bike lanes provide a painted divider between the bike lane and the adjacent travel lane. This additional space can improve the comfort of cyclists, as they don't have to ride as close to motor vehicles. Buffered bike lanes can also be used to narrow travel lanes, which slows traffic. Buffered bike lanes are most appropriate on wide, busy streets. They can be used on streets where physically separating the bike lanes with protected bike lanes is undesirable for cost, operational, or maintenance reasons.

Shy lanes, similar to bicycle lanes, have lane striping that is typically at a distance of 4-6 feet from the face of the curb. The area is usable by cyclists but is not designated for their exclusive use and thus generally do not have any associated pavement markings or signage. In addition, shy lanes may be utilized by vehicles briefly while exiting driveways or minor streets to improve sight distance, by the City to store snow after a winter storm, and as a buffer area adjacent to sidewalks. These lanes may have intermittent obstacles such as utility vaults, manholes, or storm drain grates that would be cost prohibitive for the City to repair. A few locations also experience a narrowing to less than 4 feet for short distances where roadway width is briefly constricted, or might even be dropped in favor of a turn lane at larger volume intersections.

Bicycle routes are typically simple signed routes along street corridors, usually local streets and collectors. With proper route signage, design, and maintenance, bike routes can be effective in guiding bicyclists along a route suited for bicycling that does not have enough roadway space for a dedicated bike lane.

Sharrows. Bike routes can be designed in a manner that encourages bicycle usage, convenience, and safety by incorporating sharrows (officially known as “shared lane markings”). Sharrows indicate to bicyclists the proper position to ride within the travel lane and assist with wayfinding. They also alert motorists that the travel lane is to be shared with bicyclists.

Bicycle boulevards are designated to offer priority for bicyclists over motor vehicle traffic. Bicyclists share the same roadway space as motorists that operate at similar speeds. Residential streets that offer convenient low-street access to commercial corridors, schools, and other local destinations are the most common candidates for bicycle boulevards. Combinations of diversions, access management and traffic calming for motorists off the bicycle boulevards are generally included to reduce motor vehicle operating speeds and volumes on these facilities.

Pavement coloring is useful for a variety of applications in conjunction with bicycle facilities. They are used to highlight conflict areas between bicycle lanes and turn lanes, especially where bicycle lanes merge across motor vehicle turn lanes.

Additional Guidance on Bicycle Design Features

Bikeway design and construction should take into account vertical requirements and the impacts of maintenance and emergency vehicles on shoulders. They should also be designed with adequate width for street sweeping to ensure that debris will not accumulate.

Though not included in this section, guidance on additional bicycle design features can be referenced in the AASHTO, NACTO and FHWA manuals mentioned above. These may include (but not limited to) additional guidance on:

- Bikeway symbols, markings and signing
- Wayfinding and directional signing
- Bicycle parking
- Intersection design
- Multi-use path crossings
- Bicycle signals and detection

Figure 5-8 Bicycle Facilities

5.3 Air and Water Transport

Several non-automobile facilities serve Kennewick's transportation needs. These facilities do not serve passenger transportation, but they do play an important role in Kennewick's economic vitality.

5.3.1 Aviation

The closest commercial airport to Kennewick is the Tri-Cities Airport, located in the City of Pasco and operated by the Port of Pasco. It is located just north of the junction of US 395 and I-182. The Tri-Cities Airport is the largest in the region with major airlines operating daily at this airport.

The region also has two other airports: the Richland Airport, and the Prosser Airport. Along with the Tri-Cities Airport in Pasco, these three airports are part of the Federal Aviation Administration (FAA) National Plan of Integrated Airport Systems (NPIAS). This inclusion enables these facilities to receive funding through the federal Airport Improvement Program (AIP).

5.3.2 Marine/Water

Kennewick sits along the Columba-Snake River System (CSRS), which extends 465 miles from the Pacific Ocean into North America. Eight dam and lock complexes are in the system, allowing barge lines to transport goods to various destinations along the river. The Port of Kennewick owns several sites along the CSRS, including the Hover site just southeast of the City.

5.4 Transit and Transportation Demand Management

As the costs of fuel and street projects increase there will be greater demand and emphasis on public transportation services to address the mobility needs of Kennewick's residents. Local planning efforts will likely be encouraged and perhaps required to further emphasize transportation

and land use plans, programs and policies that help reduce (single-occupant) vehicle miles traveled (VMT) per capita, resulting in lower vehicle emissions. Transit is a key modal element of Kennewick's TSP, and will become an increasingly more important mobility option for Kennewick residents. Transportation demand management (TDM) measures, combined with the growing role for transit in Kennewick and the Tri-City area, will also help to reduce vehicle emissions growth. Both the transit and TDM elements of the TSP are described below.

5.4.1 Transit

Kennewick and the surrounding Tri-City area have historically supported public transportation through flexible and fixed-route, bus transit services. Ben Franklin Transit is the primary bus operator in the Tri-Cities, but there are additional forms of public transportation available to Kennewick residents. While the City does not directly own and operate public transit, there are many ways in which it supports transit through multi-modal system operations and project and program development.

5.4.2 Transportation Demand Management

Transportation Demand Management (TDM) is a general term for various strategies that increase transportation system efficiency. TDM treats mobility as a means to an end, rather than an end in itself. It emphasizes the movement of people and goods, rather than motor vehicles, and so gives priority to more efficient modes (such as walking, cycling, ridesharing, public transit and telecommuting), particularly under congested conditions.

The City of Kennewick has established several strategies to reduce transportation demand, and thereby addressing the City's transportation congestion. The aim of transportation demand management (TDM) programs is to reduce the number of vehicles on the area's roads, which will reduce the demand on the existing transportation network. The

City's policies for TDM are provided in the 2017 Comprehensive Plan.

5.5 Level of Service Standards

Level of service (LOS) standards measure the performance of the transportation system and establish the basis for the concurrency requirements in the Growth Management Act (GMA), while also being used to evaluate impacts as part of the State Environmental Protection Act (SEPA). Agencies are required to “adopt and enforce ordinances which prohibit development approval if the development causes the level of service on a transportation facility to decline below the standards adopted in the transportation element of the comprehensive plan, unless transportation improvements or strategies to accommodate the impacts of development are made concurrent with development.” (RCW 36.70A.070(6)(b)). Therefore, setting the LOS standard is an essential component of regulating development and identifying planned improvements for inclusion in the Transportation Systems Plan.

5.5.1 Level of Service Definitions

Level of service (LOS) is both a qualitative and quantitative measure of roadway operations. Level of service, as established by the Highway Capacity Manual uses an “A” to “F” scale to define the operation of roadways and intersections as follows:

LOS A: Primarily free flow traffic operations at average travel speeds. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delays at signalized intersections are minimal.

LOS B: Reasonably unimpeded traffic flow operations at average travel speeds. The ability to maneuver within the traffic stream is only slightly restricted and control delays at signalized intersections are not significant.

LOS C: Stable traffic flow operations. However, ability to maneuver and change lanes may be more restricted than in LOS B, and longer queues, adverse signal coordination, or both may contribute to lower than average travel speeds.

LOS D: Small increases in traffic flow may cause substantial increases in approach delays and, hence decreases in speed. This may be due to adverse signal progression, poor signal timing, high volumes or some combination of these factors.

LOS E: Significant delays in traffic flow operations and lower operating speeds. Conditions are caused by some combination of adverse progression, high signal density, high volumes, extensive delays at critical intersections, and poor signal timing.

LOS F: Traffic flow operations at extremely low speeds. Intersection congestion is likely at critical signalized intersections, with high delays, high volumes, and extensive vehicle queuing.

5.5.2 Level of Service Standard

The City typically applies the LOS standards to weekday PM peak hour conditions for its arterials and collectors within the City. However, evaluation of other time periods may be required based on the type and location of development and the existing conditions of the local transportation network. As areas are annexed, the City's standards are applied. The following summarizes the current minimum LOS standards established by the City.

- LOS D - Major approaches at signalized intersections and roundabouts.
- LOS E - For all minor street approaches at unsignalized intersections or driveways.
- LOS F – May be acceptable at unsignalized intersections or driveways when a second access

point is within ¼ mile operating at LOS D or better and which is controlled by a traffic signal or roundabout. An LOS F may also be acceptable in situations where the side street volumes are low and no adverse impact on safety is expected.

If expected funding for improvements to meet future transportation needs is found to be inadequate and the City will not be able to meet their adopted LOS standard, then the City may pursue one or more of the following options:

- Lower the LOS standard for the system or for portions of the system that cannot be improved without a significant expenditure;
- Revise the City's current land use element to reduce density or intensity of development so that the LOS standard can be met; or;
- Phase or restrict development to allow more time for the necessary transportation improvements to be completed.

5.6 Concurrency

The concurrency provisions of the GMA require local governments to have a concurrency management program to monitor and identify future facility and service needs based on its LOS standards. Concurrency is a policy to determine whether adequate public facilities are available to serve new developments. "Local jurisdictions must adopt and enforce ordinances which prohibit development approval if the development causes the level of service on a transportation facility to decline below standards adopted in the transportation element of the comprehensive plan, unless transportation improvements or strategies to accommodate the impacts of development are made concurrent with the development". (RCW 36.70A.070).

The term "concurrent with the development" is defined to mean that improvements or strategies are in place at the time of development, or that a financial commitment is in place to complete the improvements or strategies within six-years of development.

To ensure that future development will not cause the City's transportation system performance to fall below the adopted LOS, the jurisdiction must do one or a combination of the following: modifying the land use element, limiting or "phasing" development, requiring appropriate mitigation, or changing the adopted standard.

5.6.1 Concurrency Requirements

The City has adopted concurrency requirements as part of Chapter 4.12 of the Kennewick Municipal Code. A finding of concurrency is necessary as a condition of development. Concurrency approval is required for the following types of permit applications:

- (a) Preliminary plat (subdivision of ten or more residential lots);
- (b) Site plans designated as Tier 2 or Tier 3;
- (c) Any other land use that generates 50 or more peak hour trips per day (based upon the latest ITE Trip Generation Manual or other data, as approved by the City's traffic engineer).

Tier 2 permits are projects that exceed 1,500 sq. ft. but are not greater than 4,000 sq. ft., requires less than 20 parking spaces and do not require grading/excavation of 500 cubic yards or more. Tier 2 permits exclude all new commercial and industrial buildings or additions that exceed 50% of the assessed value of the improvements on the site.

Tier 3 permits are projects that exceed 4,000 sq. ft., and/or require 20 parking spaces or more, and/or require grading/excavation of 500 cubic yards or more. Tier 3

permits include all new commercial, industrial buildings, multi-family dwellings (3 dwelling units and greater), and additions that exceed 50% of the assessed value of the existing improvements on the site.

5.6.2 Monitoring Concurrency

The City of Kennewick may require a traffic impact study (TIS) for developments that impact the transportation system. The TIS guidelines are located in Title 13-08 of the Kennewick Administrative Code. The purpose of a TIS report is to document the purpose, procedure, findings, conclusions and recommendations of the transportation analysis performed to support the proposed development. The report is used by City staff to evaluate the proposed development with respect to appropriate land use approval criteria and establish conditions of approval and any transportation mitigation measures. The review also identifies whether concurrency has been achieved. City staff also use information in the report to track those locations that are approaching the City's LOS standard and where concurrency might be triggered in the future. The City Traffic Engineer will generally determine when a Traffic Impact Study is required.

5.7 Maintenance

Maintenance is vitally important to the function, life-span, quality, and long-term user costs of roadways, intersections, and other infrastructure components. Poorly maintained roadways costs more to fix in the long run and degrade safety. Poorly maintained traffic signs and signals can increase the frequency of crashes and increase delay. Maintenance costs cover such things as channelization, striping, sign replacements, vegetation removal, pothole repair, crack seals, chip seals, or overlays, and roadway or bridge reconstruction.

Maintenance can also improve conditions for pedestrians and cyclists as cracks and upheavals in sidewalks are

repaired and the shoulders of roadways are swept and kept clear of debris. More pedestrians and/or cyclists are likely to use roadways and sidewalks that are properly maintained, safe, and attractive thereby reducing vehicular traffic. The City should continue to allocate annual budget resources to maintain and preserve the existing infrastructure in a cost-effective manner.

5.8 Transportation System Management

Transportation System Management (TSM) programs are designed to increase the usefulness and efficiency of existing facilities and systems through short range, low cost improvements. TSM programs involve all modes of transportation. Examples of TSM programs include transit programs, Intelligent Transportation Systems (ITS), traffic signal timing programs, and road diets. ITS and traffic signal timing programs are discussed in this section.

5.8.1 Intelligent Transportation Systems (ITS)

ITS are used to gather and/or disseminate information regarding performance of the transportation system (usually in real-time) in an effort to increase capacity, safety, and efficiency for all system users. ITS data are frequently used to solve transportation problems and aid in transportation planning activities. Data gathering ITS include weigh-in-motion devices that collect and classify information regarding heavy vehicle travel while data disseminating systems include variable message signs that warn motorists of congested roadways and recommend alternative routes. ITS systems have also been used to warn motorists of hazardous conditions such as snow and ice.

Data gathering equipment and variable message signs were added to the Columbia River Bridge (Blue Bridge) on US 395 to alert motorists to roadway conditions, hazards, and crashes. Other such ITS measures may be useful along

SR 240 and further south on US 395 to allow motorists and heavy vehicle operators to plan their routes through Kennewick in the event of congestion or crashes that may impede or delay their travel.

5.8.2 Traffic Signal Timing Programs

Traffic signal systems must be retimed or upgraded periodically as growth occurs or travel patterns change to ensure optimal operations at intersections, improve safety, meet City standards, and refresh or replace software. The City of Kennewick has planned city-wide traffic signal system upgrades, communications upgrades, and retiming of intersections throughout the City. The signal system upgrade and retiming plan will reduce delay, improve operations, and increase safety. Improvements resulting from the upgrade plan can directly impact local streets where through traffic has been a problem thereby reducing the maintenance costs of those roadways. Reduced delay will also save motorists time, reduce fuel consumption, and reduce pollution and harmful particulate matter. Improvements to the communication equipment will aid traffic operations and vehicle detection. The City of Kennewick should continue to review signals and signal timing plans and put in place a plan where by signals are evaluated on a regular basis.

5.9 Transportation Projects & Programs

The evaluation of existing and forecast traffic volumes as well as traffic operations, safety, functional classification, roadway physical characteristics, and connectivity issues has generated a recommended list of projects and programs to improve the overall safety and efficiency of the City's transportation system. Figure 5-9 illustrates the location of each the proposed projects. A complete list of these projects is shown in Table 5-2. The projects are organized into the following categories:

- New Street Construction

- Roadway Widening/Reconstruction
- Intersections
- Pedestrian/Bicycle
- Studies
- Monitoring/Operations/Programs
- Other Agency Improvements

In addition, planning level cost estimates were prepared based on typical unit costs for other projects that were recently completed in the City. All costs are in 2017 dollars. The cost estimates account for projected costs of right-of-way, typical infrastructure consistent with the City street standards, construction labor, and engineering and design costs. Adjustments were made to cost estimates where environmental issues, railroad or canal crossings, and structural or bridge construction were identified. All costs contain a large contingency factor to account for unknown design details to be evaluated when the projects are integrated into the City's 6-year Transportation Improvement Project (TIP) list

5.9.1 New Street Construction

A large portion of growth in the City of Kennewick is expected to occur in the west and south sectors of the City. As growth occurs, new roadways will be needed to provide connectivity, support development, and facilitate the local economy.

Most the new street construction is in the Southridge area with Ridgeline Drive, Montana Street, Center Parkway, Colorado Street. Two new interchanges are planned in the area with I-82 interchange with Center Parkway or Georgia Street, and US 395 interchange with Ridgeline Drive.

Other new construction projects are the Edison Street railroad crossing project (north central area), Morain Street extension (central area), and the Cascade Street extension in the southeast area of the City.

5.9.2 Roadway Widening/Reconstruction

Roadway widening and reconstruction projects were selected based on the need to maintain current infrastructure, relieve congestion, support anticipated growth, upgrade to urban standards set by the City of Kennewick, increase safety, and facilitate non-motorized forms of transportation.

Many roadways are planned to be reconstructed to urban standards or widened to accommodate growth. The following list these types of projects:

- Columbia Center Boulevard (completing three lanes each direction)
- Ridgeline Drive (east and west ends of the corridor)
- 10th Avenue (west ends of the City corridor)
- Metaline Avenue
- Kennewick Avenue
- Vancouver Street
- 45th Avenue
- 27th Avenue

5.9.3 Intersections

Not all corridor improvements require roadway widening and reconstruction to reduce congestion and increase safety. Intersection improvements can reduce delay at cross-roads to relieve queuing and congestion and improve safety. These spot locations are located throughout the city and involve adding a traffic signal, a roundabout, or additional turn lanes.

5.9.4 Pedestrian/Bicycle

Most new street construction, roadway widening, reconstruction, and intersection projects will incorporate pedestrian and bicycle facilities as part of the overall improvement. This category of project refers to projects that primarily benefit non-motorized users.

The pedestrian/bicycle projects are focused on improving sidewalks or trails on certain corridors, or providing better crossing facilities near schools and other public facilities.

5.9.5 Studies

Some projects are classified as studies, in that the specific infrastructure improvement has yet to be identified or finalized. The study is meant to supplement analysis work completed as part of this TSP update.

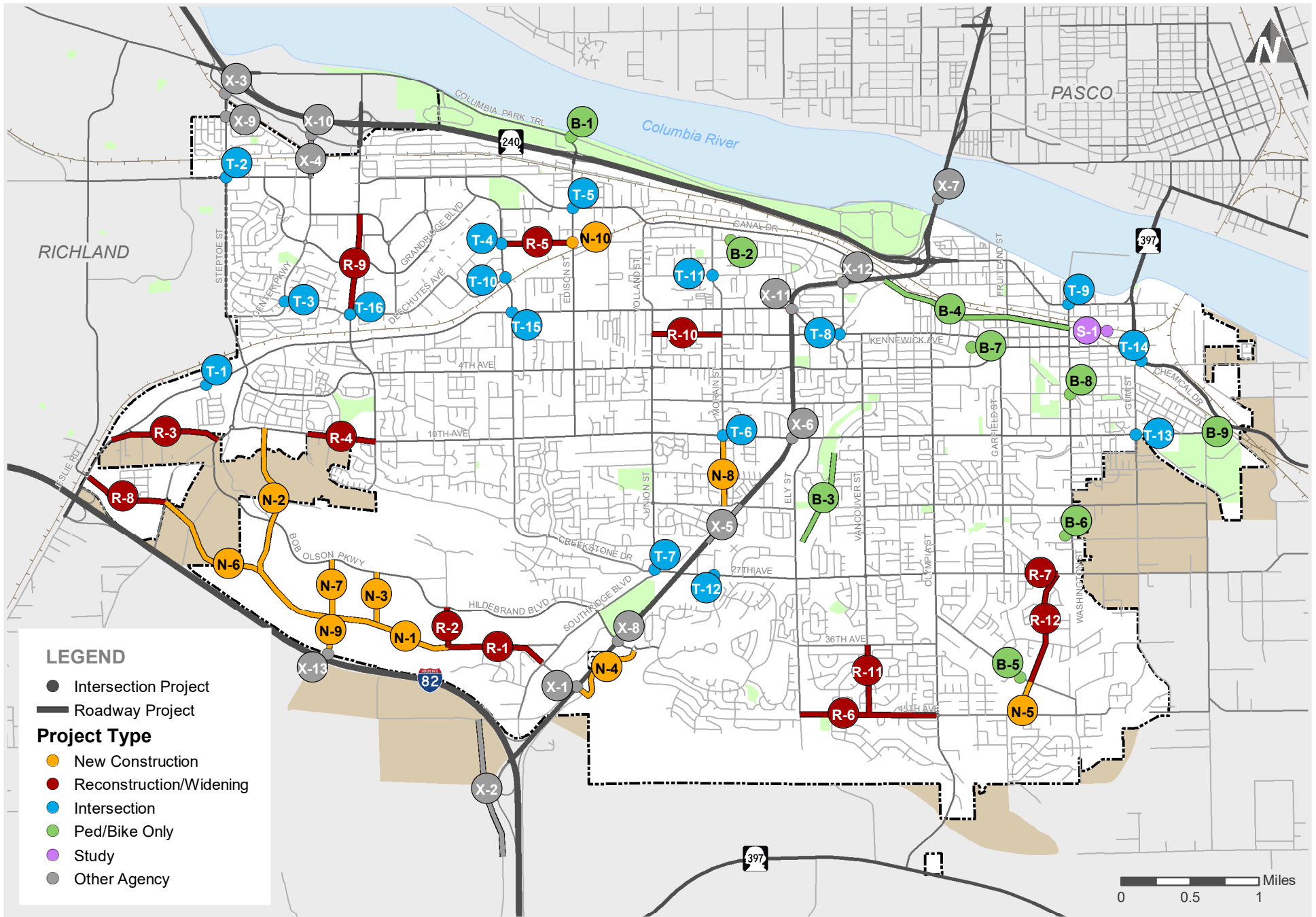
The only study in this TSP is the Downtown Railroad Grade Separation Study. This study is meant to provide more clarity on where and how the railroad in downtown will be crossed, given the mobility problems associated with the increases in railroad freight operations.

5.9.6 Monitoring/Operations/Programs

Projects related monitoring and operations relate to improving traffic operations through better monitoring, managing, and implementing new mobility tools. In many cases, new technology may provide operational benefits at a more cost-effective manner than traditional transportation improvement projects. The

5.9.7 Other Agency Improvements

Many regional improvements have been planned that will also benefit the Kennewick area. Most of the regional improvements benefiting Kennewick will occur along US 395 or I-82 at new interchanges and intersections. The City of Richland also has several projects associated with Tapteal Drive in the northwest corner of the City.



Transportation System Plan Projects

Kennewick Citywide Transportation Plan

M:\1711.17118.00 - Kennewick Citywide Transportation Plan\GIS\Maps\MXD\Figures\DRAFT_Fig 5-9 Transportation Plan Project.mxd

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FIGURE

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5-9

Table 5-2 Transportation System Plan Projects

[Chapter 6 Photo Page]

6. FINANCING PROGRAM

[Chapter 7 Photo Page]

7. IMPLEMENTATION

7 Implementation

Once developed, a plan is just a collection of words and good intentions. It has no effectiveness unless its goals, objectives, and policies are adopted as a foundation for decision-making. Its recommended projects and programs will not be undertaken unless designed and financed. In essence, a plan is only as good as the actions taken to implement it.

7.1 Legal Basis of the Kennewick Transportation Systems Plan

Implementing the Kennewick Transportation Systems Plan begins with the establishment of its legal standing through adoption. The Kennewick Transportation Systems Plan will be adopted by City Council as an element of the Kennewick Comprehensive Plan. The Kennewick Transportation Systems Plan is considered a detailed component of the Comprehensive Plan; and, therefore, has the same weight, or legal standing, as the Comprehensive Plan. The goals, objectives, policies, maps and projects contained in both the Comprehensive Plan and Transportation Systems Plan are legally adopted and binding.

When new studies or neighborhood plans develop recommendations that would improve upon the Kennewick Transportation Systems Plan, the Plan can be amended to reflect those changes. Amendments to the Plan require a public hearing and vote of approval by City Council.

7.2 Policy Foundation for Decision-Making

The Kennewick Transportation Systems Plan provides the policy foundation for City decision-makers, Staff, advisory bodies, and citizens. The goals, objectives, and policies of the Plan are to be considered in all decision-making

processes that impact, or are impacted by, the transportation system. Specifically, the Plan is to guide decisions involving:

7.3 The Function and Location of Streets

The Plan describes, through the use of maps and descriptions the classification, or function, the public streets within the Kennewick planning area. It also describes the approximate alignment of planned arterial and collector streets.

7.4 Land Use Development

The Plan contains policies and recommendations that require new development to provide adequate accessibility for all travel modes within the development, and system coordination with existing and planned development. The Plan also guides the development of new street system elements as development occurs.

7.5 Transportation Programs

This Plan identifies measures and programs to be undertaken to increase mobility for all travel modes.

7.6 Capital Investments

The project and program recommendations contained within the Plan form the basis from which projects are placed into the Six-Year Transportation Improvement Program (TIP), the Metropolitan Planning Organization (MPO) and Regional Transportation Planning Organization (RTPO) Transportation Improvement Program (MPO/RTPO TIP), The State of Washington STIP, and annual City budget.

7.7 Funding Priorities

The projects and programs recommended in the Plan are prioritized based on need and general timeframe. These

priorities should be considered when preparing funding scenarios and measures. It is understood that priorities may change over time, and other factors need to be considered when preparing funding and construction priorities.

7.8 Relationship with the Kennewick Six-Year Transportation Improvement Program

The City of Kennewick Six-Year Transportation Improvement Program (TIP) is a six-year implementation plan for the City's capital construction and operations projects. The major transportation-related projects contained in future TIP's will be derived, in part, from the projects and needs identified in the Kennewick Transportation Systems Plan. All transportation projects contained in the TIP, whether major or minor, must be consistent with the goals, objectives, policies, and needs identified in the Kennewick Transportation Systems Plan.

7.9 Relationship with Land Use Actions and Development Review

In accordance with requirements contained in the Kennewick Municipal Code, the adopted goals, objectives, policies, projects and maps of the Kennewick Transportation Systems Plan must be considered and applied in the review and approval of land use actions and development applications.

7.10 Component of Regional Transportation Plans

The Kennewick Transportation Systems Plan has been developed in relation to the MPO/RTPO TIP for Benton, Franklin and Walla Walla Counties which makes recommendations for local plan development for the City of Kennewick and other jurisdictions in the region. The MPO/RTPO TIP is updated and adopted by the Benton-Franklin Council of Governments (BFCOG).

7.11 MPO/RTPO Transportation Improvement Program

Just as the Kennewick TIP is the primary implementing document for the Kennewick Transportation Systems Plan, the MPO/RTPO TIP is the implementing mechanism for the Metropolitan Transportation Plan. The MPO/RTPO TIP contains all projects of regional significance from each of the region's jurisdictions. Projects requiring the use of state or federal funds must also be included in the MPO/RTPO TIP. Project priorities and the assignment of federal funds are reviewed by the regional Technical and Policy Advisory Committees of the Regional Transportation Planning Organization (RTPO), which consists of elected officials from each participating local jurisdiction, and the Washington State Department of Transportation. Some of the projects and programs identified in the Kennewick Transportation Systems Plan will constitute a significant portion of the MPO/RTPO TIP.

7.12 Amending the Kennewick Transportation Systems Plan

With the detailed elements of the 20-year plan and the broader principles contained in the long-range strategy, the Kennewick TSP is designed to be relevant for the 20 year planning horizon. However, like all plans, circumstances change, assumptions become modified, and new priorities are developed. As a living document, the Kennewick TSP has been prepared for an efficient amendment process to address ongoing transportation issues.



CITY OF KENNEWICK

TRANSPORTATION SYSTEMS PLAN UPDATE

May 2018



transpogroup 
WHAT TRANSPORTATION CAN BE.

AGENDA

Project Overview

Long-term Project List

Project Costs

Funding Analysis

TIF Program Updates

Feedback & Questions



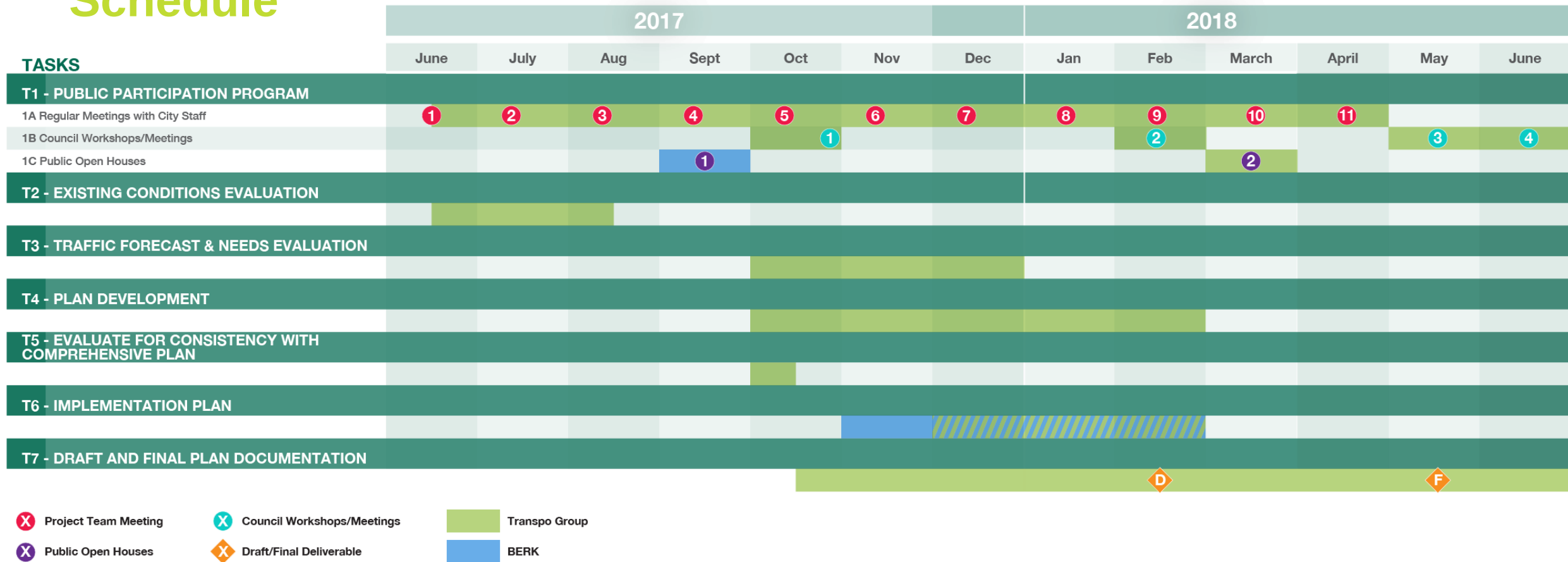
PROJECT OVERVIEW

Goals & Objectives

- Update the existing Transportation Systems Plan (adopted in 2005)
- Maintain consistency and coordination with updated Comprehensive Plan
- Review and update transportation policies with respect to new analysis findings
- Update transportation funding analysis and strategies

PROJECT OVERVIEW

Schedule

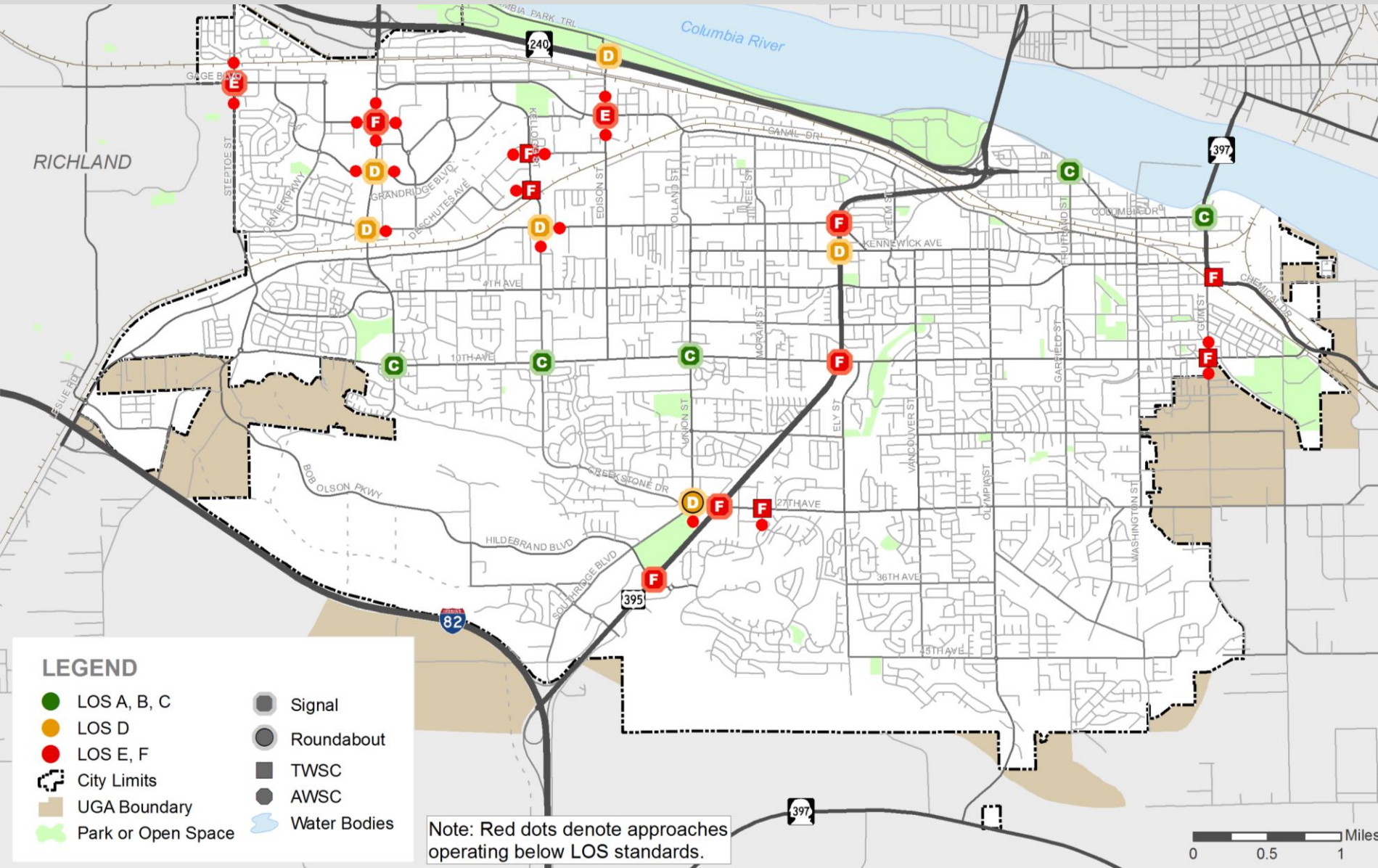


PUBLIC PARTICIPATION

DATE	EVENT	GOAL
September 2017	Open House (Southridge Sports Complex)	Provide overview of the planning effort, and identify issues and concerns
October 2017	City Council Workshop	Present planning process, confirm assumptions and methodologies, receive input on study approach
February 2018	City Council Workshop	Present major plan findings and receive feedback
March 2018	Open House (Southridge High School)	Share draft project list and priorities, and gather feedback
May 2018	City Council Workshop	Present projects, funding plan and transportation impact fee program updates
June 2018	City Council Meeting	Adoption of the Transportation Systems Plan and Impact Fee Program Update



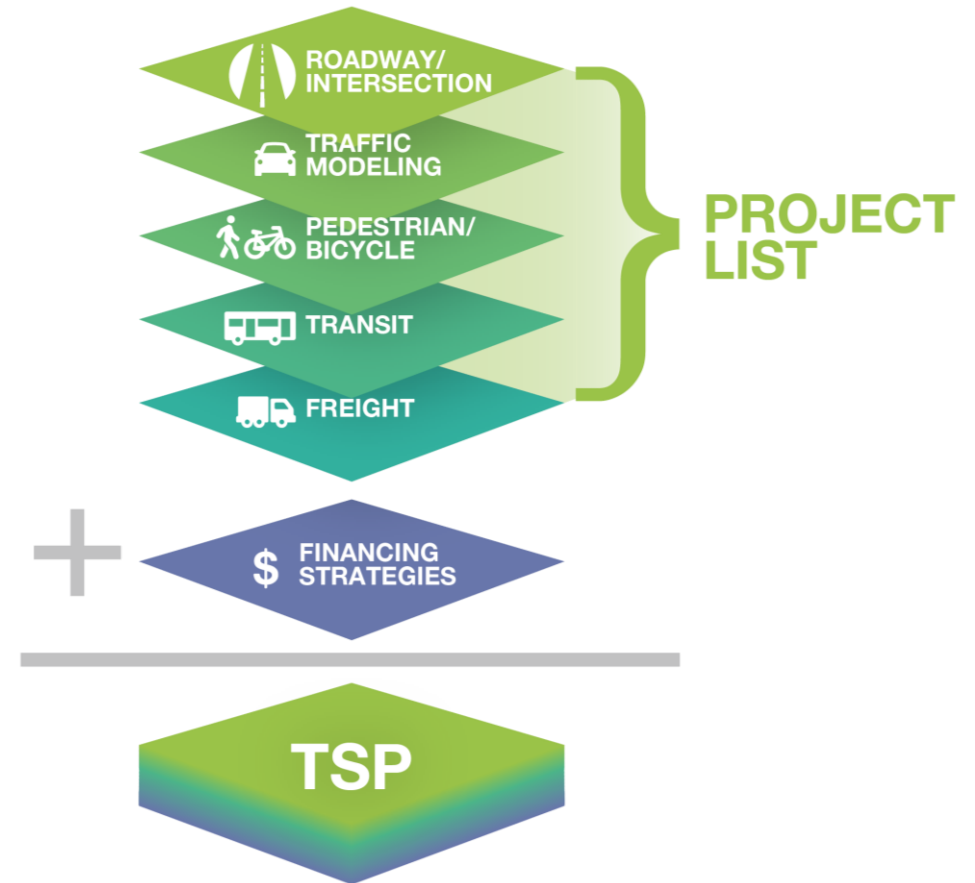
LOS RESULTS – 2040 w/o improvements



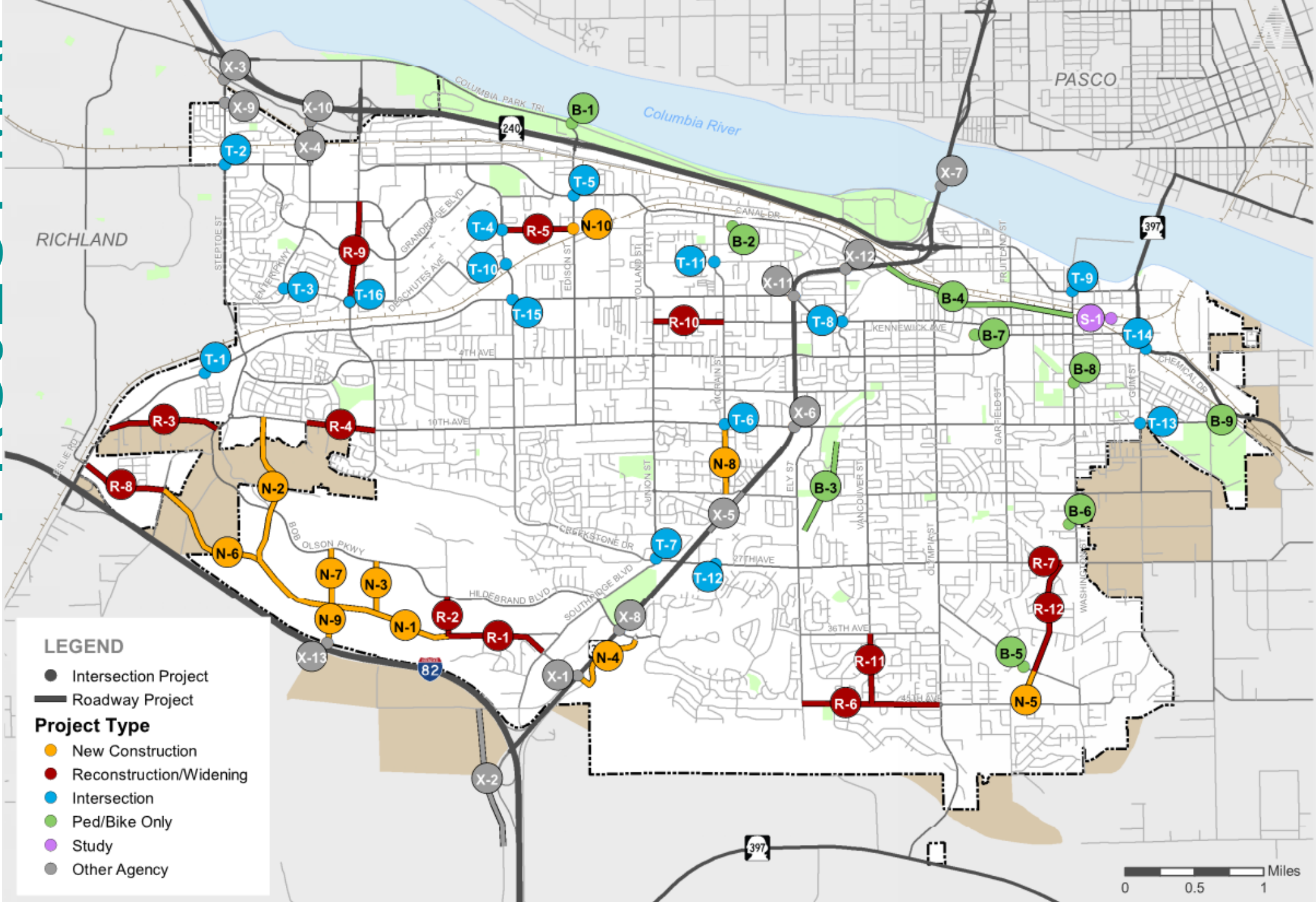
- Evaluation of key intersections
- 11 intersections not meeting City LOS standard
- 5 intersections not meeting WSDOT LOS standard
- Projects identified to address the deficiencies

PROJECT TYPES

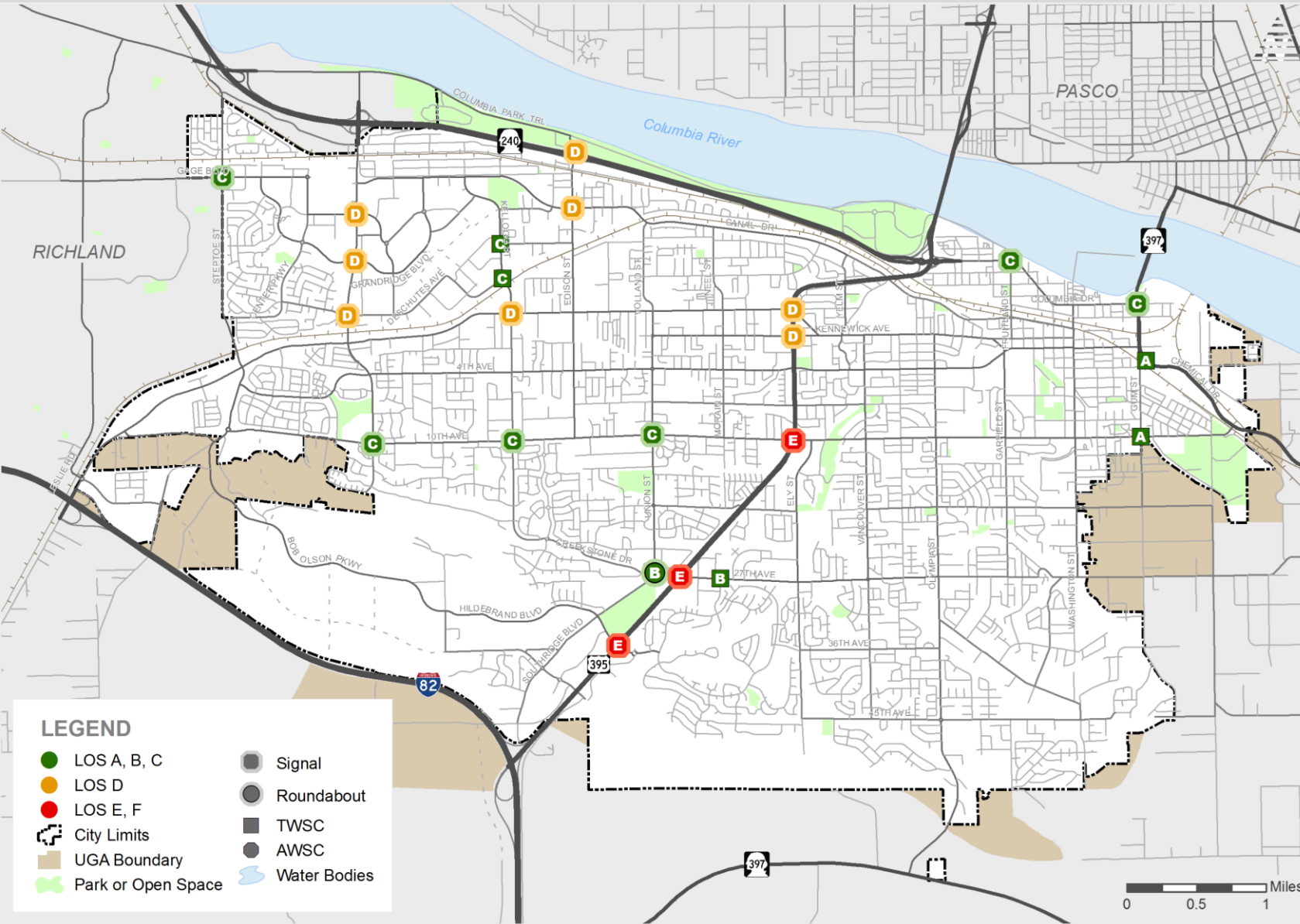
- New Street Construction
- Roadway Reconstruction/Widening
- Intersection
- Pedestrian/Bicycle
- Annual Programs
- Studies
- Other Agency



PROJECT MAP



LOS RESULTS – 2040 with Improvements



- Evaluation of key intersections with long-term improvements in place
- All intersections meeting City LOS standard
- 3 intersections not meeting WSDOT LOS standard (would otherwise require corridor widening)

PROJECT COSTS

Project Type	Cost (\$)
New Street Construction	\$13,015,000
Reconstruction/Widening	\$68,250,000
Intersection	\$39,215,000
Pedestrian/Bicycle	\$2,673,000
Annual Programs (preservation, sidewalk, signal upgrades)	\$47,550,000
Studies	\$100,000
Estimated Debt Service	\$7,883,000
Subtotal	\$178,686,000
* <i>WSDOT/City Joint Projects</i>	\$33,060,000
Total	\$211,746,000

- Developed planning level project cost estimates
- Based on updated 20-year project list
- All costs in 2017 dollars
- WSDOT projects primarily located along US 395 and would likely require some City funds

* Costs would likely be shared between the City and WSDOT

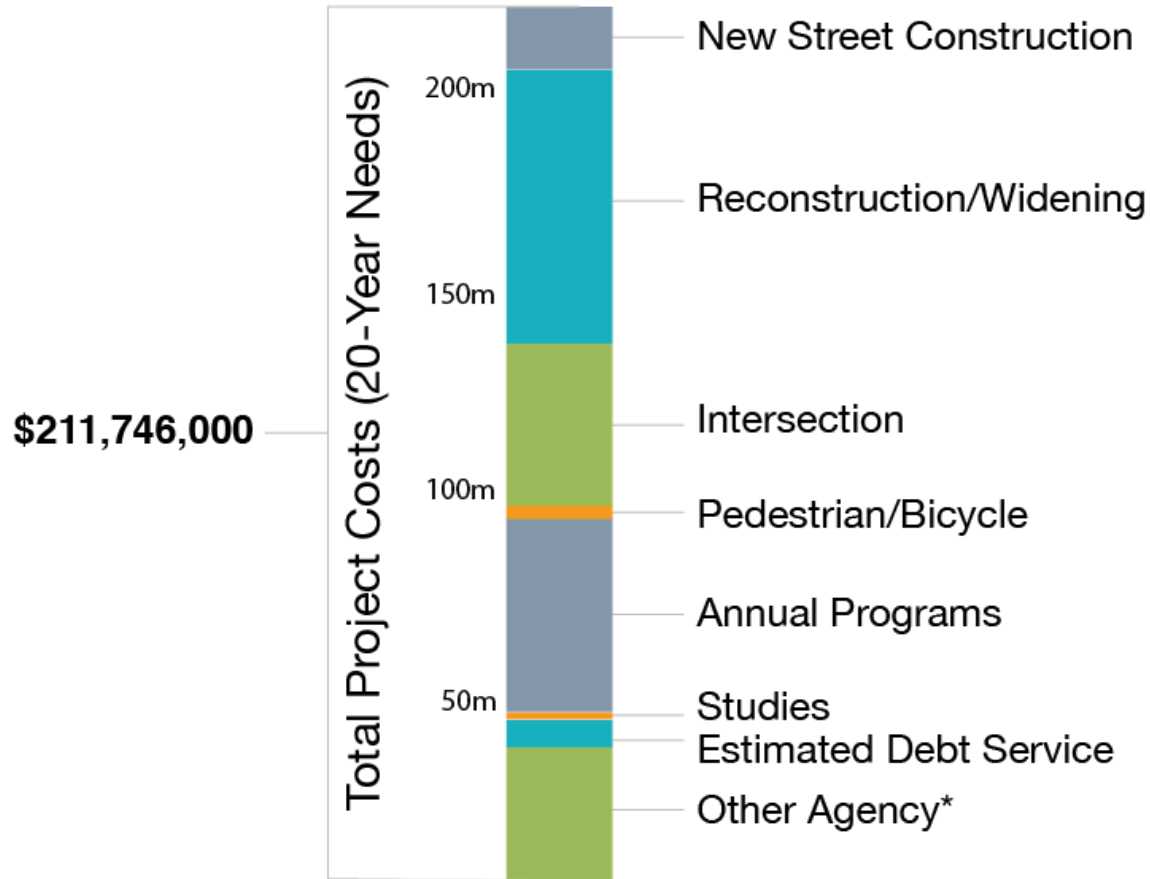
REVENUE PROJECTIONS BY SOURCE

Projected Revenues (2017 \$)	Key Assumptions	2017 to 2040
State Grants	Grant revenue per capita based on last 10 years	\$47,327,000
Federal Grants	Grant revenue per capita based on last 10 years	\$69,128,000
Transportation Impact Fees	Based on the 60% reduction in maximum allowed fee	\$29,425,000
Real Estate Excise Tax (REET)	Based on 0.25% allocated to transportation projects and assumes a 2% annual increase	\$33,946,000
Sales Tax	Has not been used to fund transportation projects since 2015	\$0
Motor Vehicle Fuel Tax (MVFT)	Used to fund maintenance activities, not capital projects	\$0
Total Capital Revenues		\$179,826,000

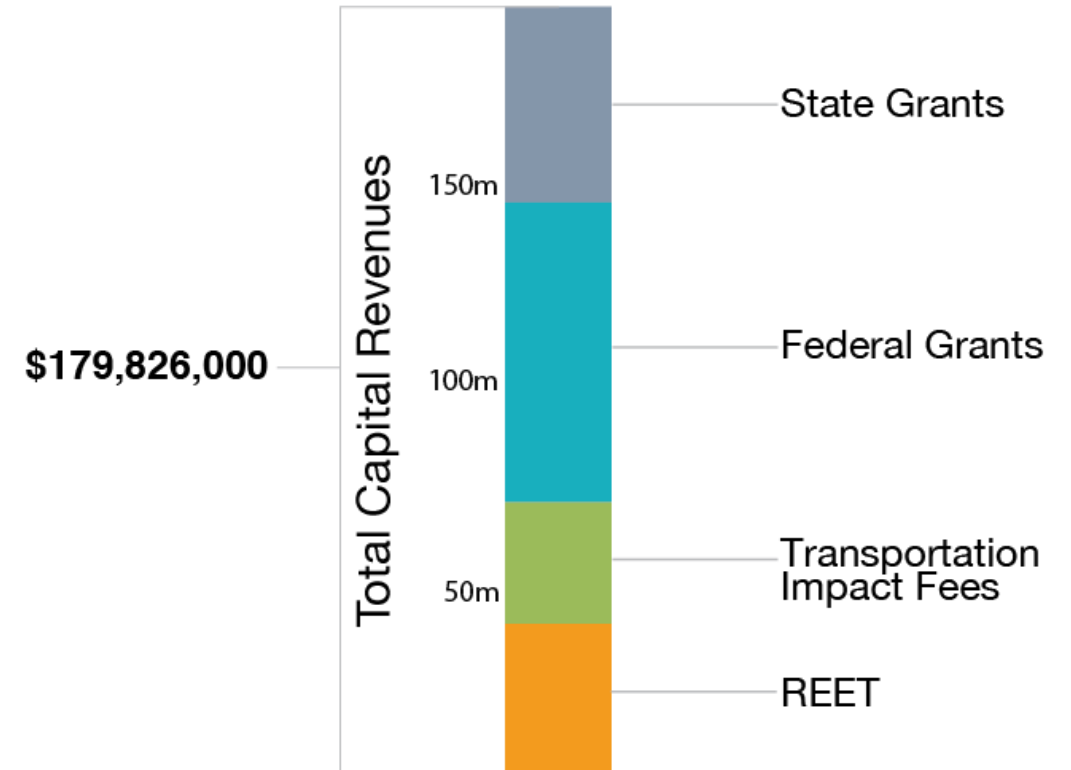
- Based on analysis by BERK, 2018
- All revenues in 2017 dollars

- Revenue estimates are based on historical data provided by the City
- The capital program is heavily dependent on state and federal grants
- TIF is expected to comprise less than 20% of capital revenue
- Other sources of City revenue may be used such as sales tax or other general fund revenue

COSTS VERSUS REVENUES



* Costs would likely be shared between the City and WSDOT

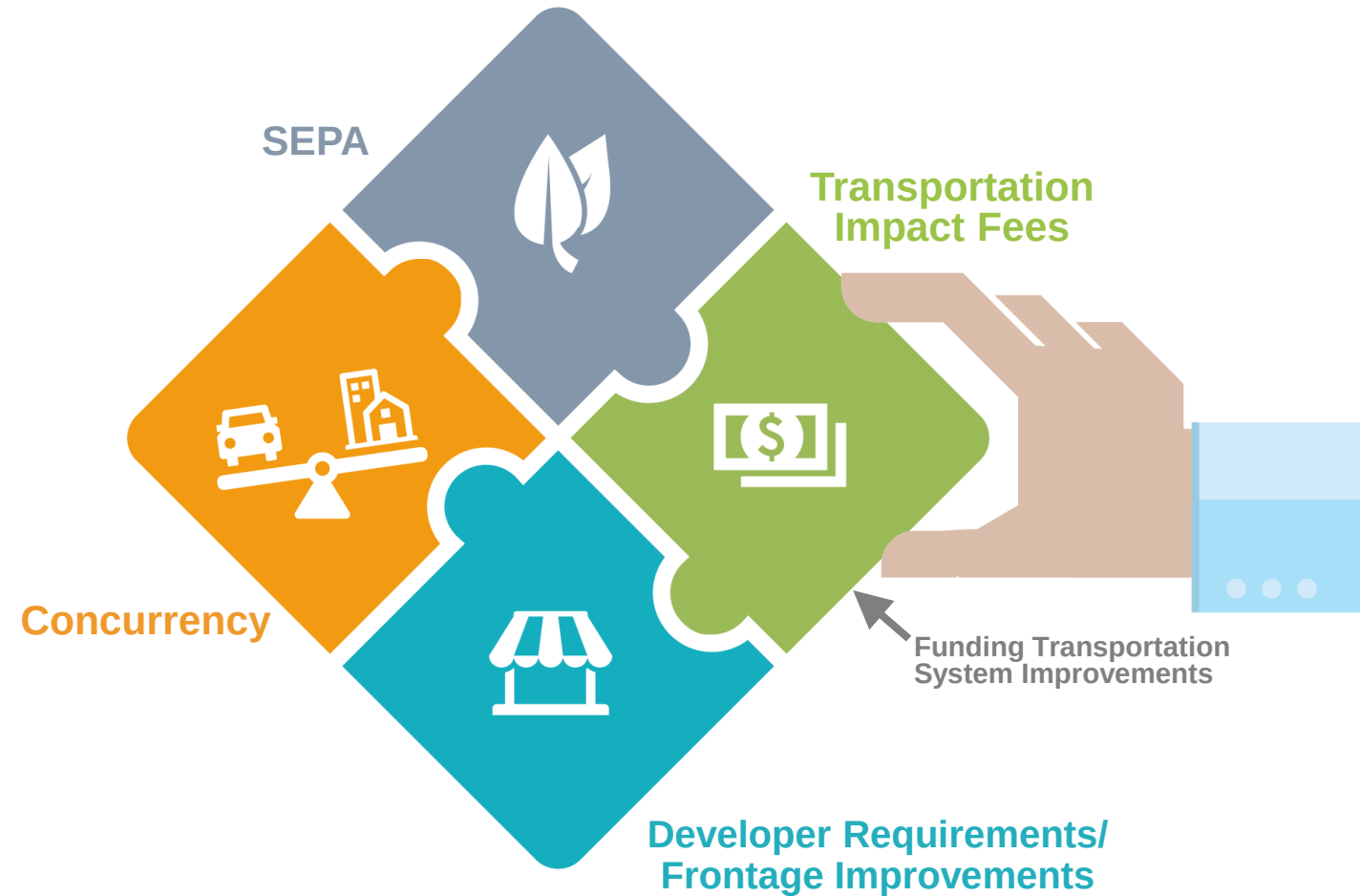


TRANSPORTATION IMPACT FEE

Overview of Program Options

DEVELOPMENT REVIEW ELEMENTS

- Optional element under GMA – related to funding
- Used to help mitigate development impacts
- System improvements – not project improvements
- Not used to resolve existing deficiencies
- Pooling of funds allowed



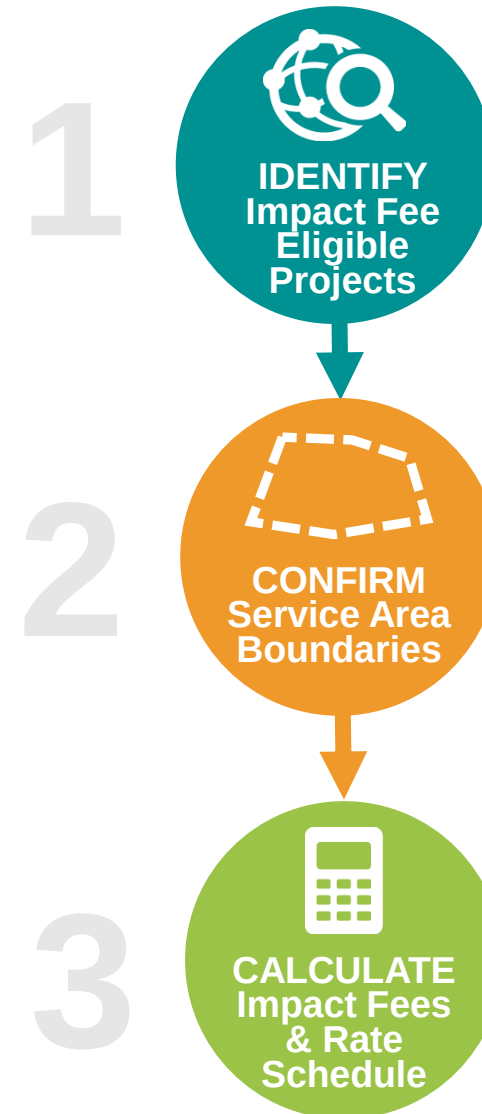
TIF UPDATE PROCESS

Key Components of TIF Program

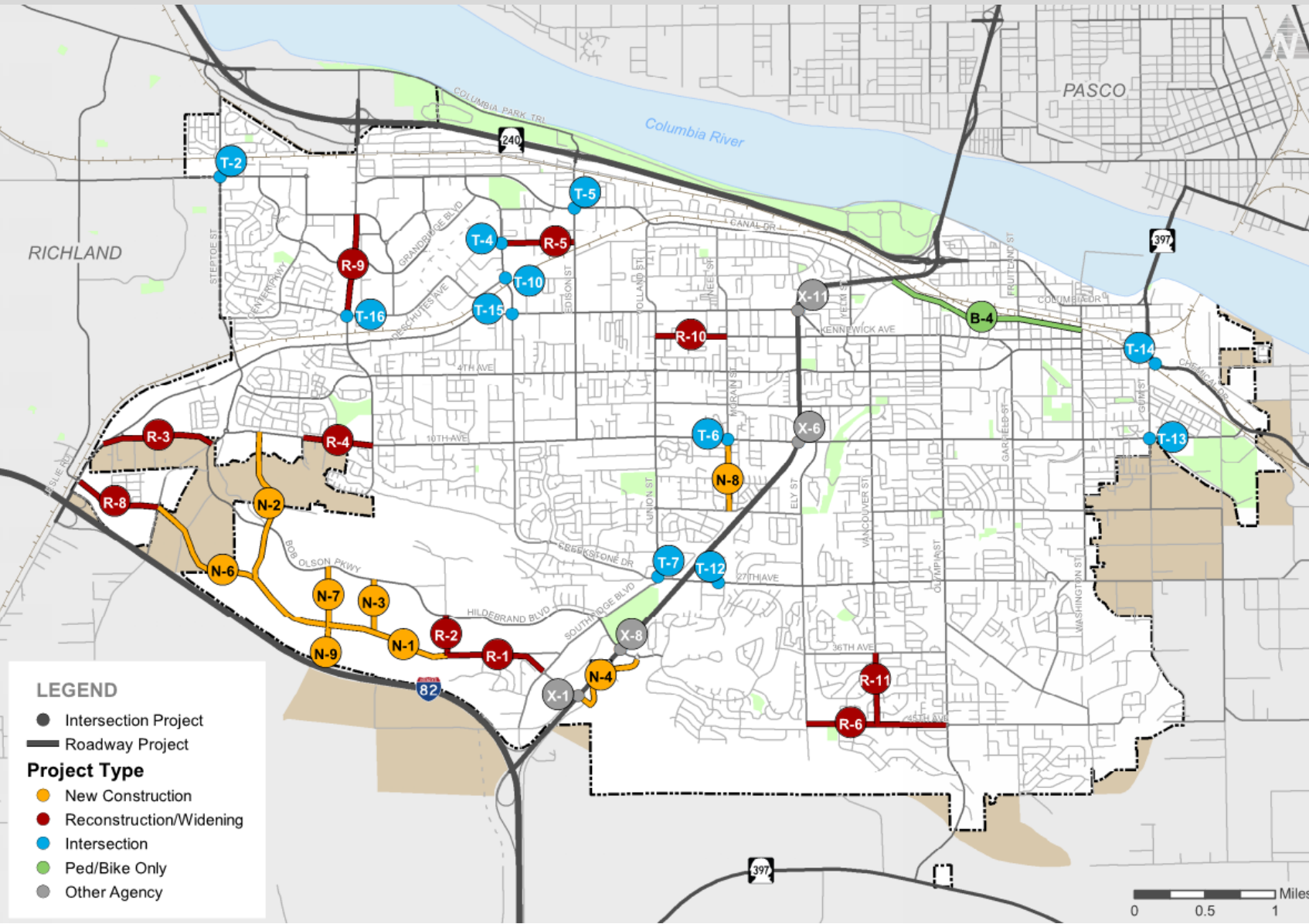
- Project list
- Service area(s) – “Districts”
- Rate schedule

Key Components of TIF Ordinance

- Consideration of independent studies
- Credits for dedication of land or improvements
- Impact fee account and annual report
- Consideration for change of use

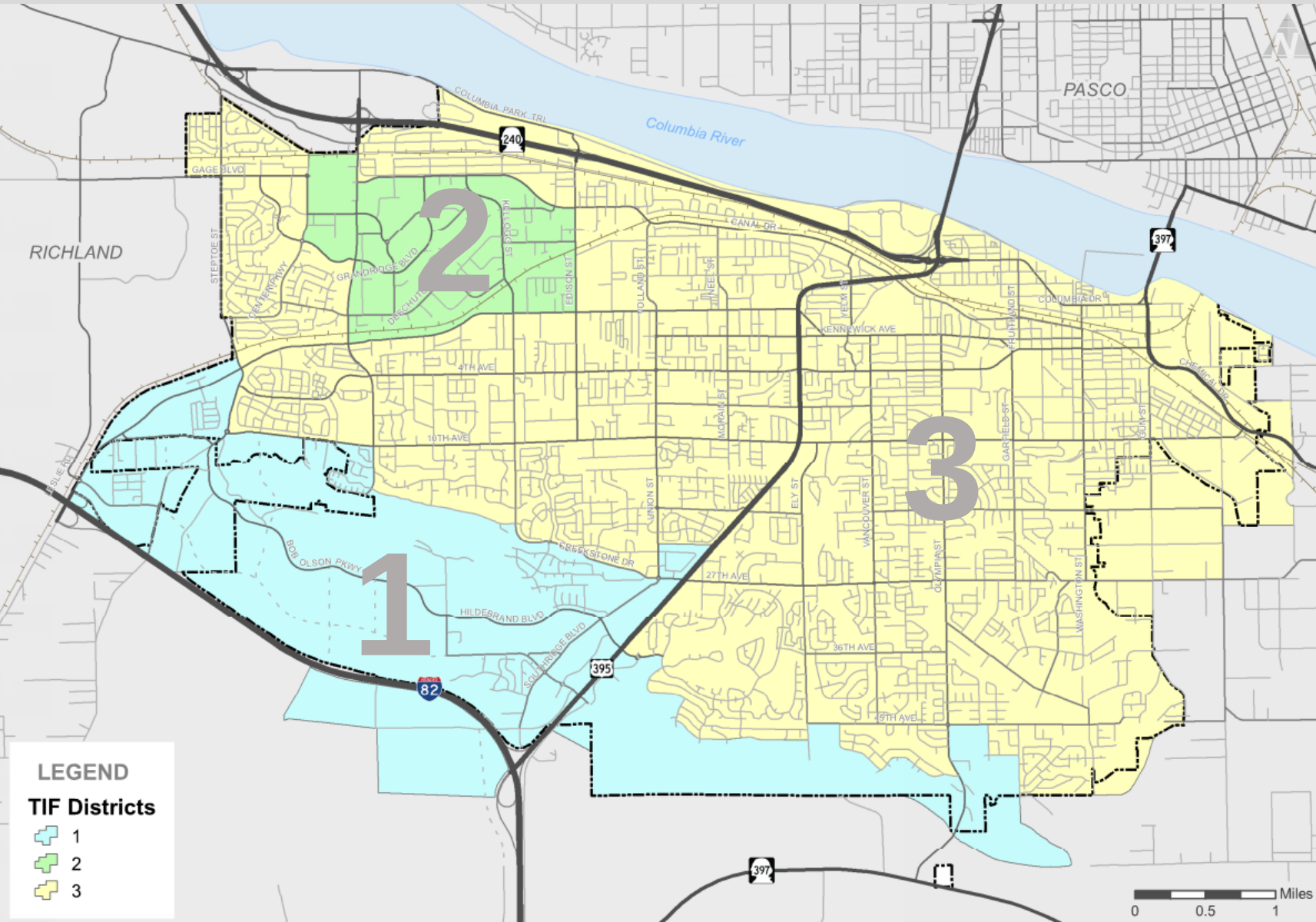


TIF ELIGIBLE PROJECTS



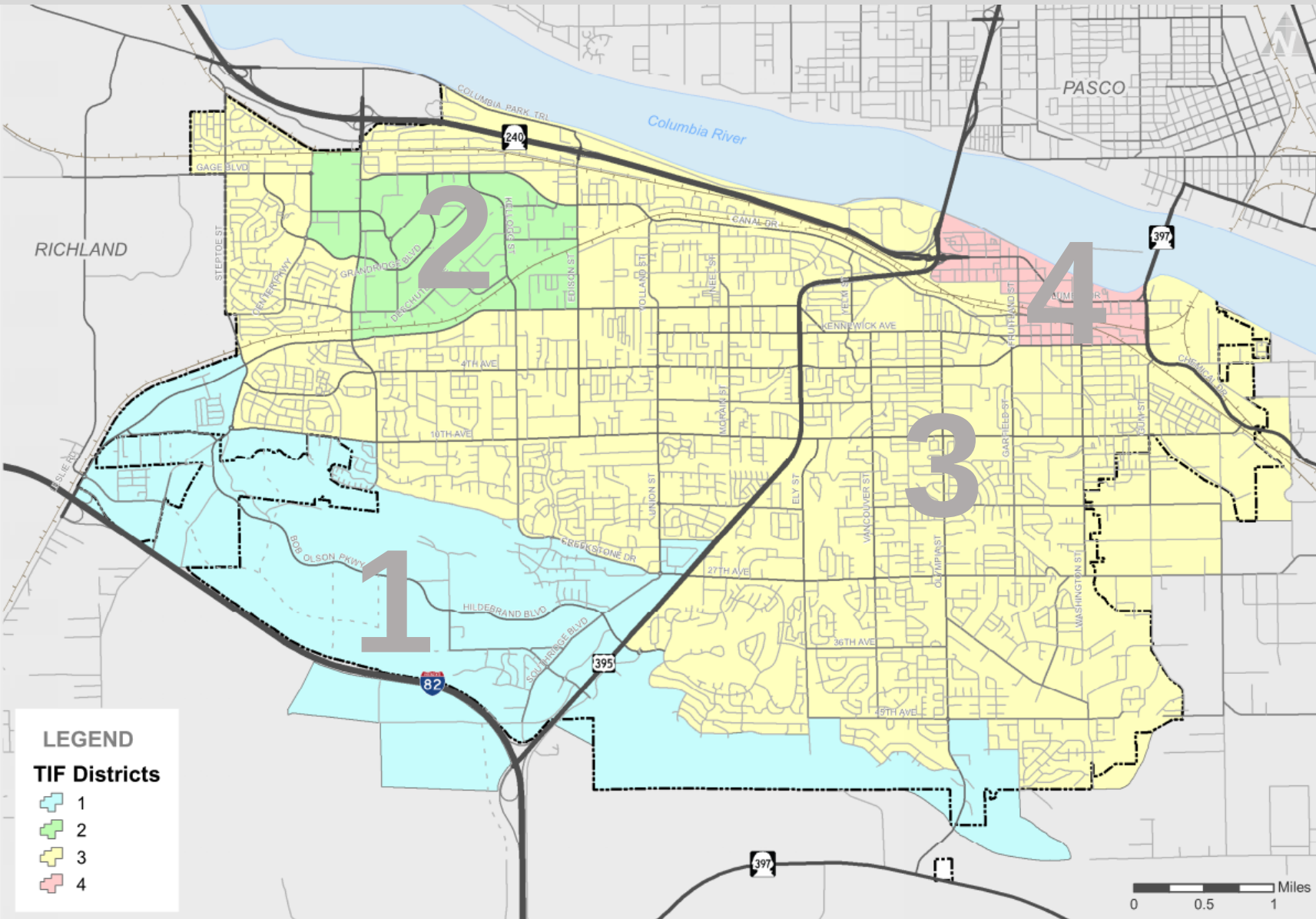
- Intersections
- New roadway construction
- Reconstruction/ widening of roadway segments
- Building/widening roadway shoulders
- Non-motorized enhancements (bike lanes, sidewalks)

OPTION 1: THREE TIF DISTRICTS



1. Southridge Area
2. Vista Field Area
3. All Other Areas

OPTION 2: FOUR TIF DISTRICTS



1. Southridge Area
2. Vista Field Area
3. All Other Areas
4. Downtown Area

TIF COST BY DISTRICT

EQUATION

TIF Eligible Cost ÷ Growth Trips = Cost per PM Peak Hour Trip

Area #	Area Name	Total New PM Peak Hour Trips ¹	Total Project Costs ²	Maximum Cost per Trip
District 1	Southridge	14,076	\$46,550,153	\$3,310
District 2	Vista Field	4,058	\$8,816,012	\$2,170
District 3	All Other	6,495	\$16,137,557	\$2,480
District 4	Downtown	2,413	\$2,059,278	\$850
Total		27,042	\$73,563,000	\$2,720

1. Trips reflect growth trips only, generated by each district
2. Costs (2017 \$) by district reflect proportionate share of project costs based on vehicle miles traveled

- Represents the maximum fee that could be charged by area
- Based on the new number of PM peak hour trips generated by a development

2015 vs. 2018 TIF COMPARISON

Item	2015 TIF	2018 TIF
Length of Capital Program	10 years	20 years
# of TIF Eligible Projects	8	35
Total Project Costs	\$212M	\$220M
TIF Eligible Project Cost	\$18.7M	\$73.6M
Number of New Trips	6,366	27,042
TIF Cost/Trip	\$2,945	\$2,720
Reduced Adopted TIF Cost/Trip	\$900	TBD
# of Districts	1	4
Inflation Index	WA Construction Index	* Consumer Price Index (U.S. Cities - Urban Wage Earners and Clerical Workers - CPI-W)

* Also used by the City's water/sewer/storm fees

PRELIMINARY RECOMMENDATIONS

TIF Districts: Use the 4 districts

- Variable rate by district creates incentives without targeting specific land uses

TIF Rate: Reduce maximum allowable TIF by 60%

- Reduces maximum allowable TIF by not funding some projects on list

Area	Maximum (100%) Cost/Trip	Reduced (60%) Cost/Trip	Existing Cost/Trip
District 1	\$3,310	\$1,324	N/A
District 2	\$2,170	\$868	N/A
District 3	\$2,480	\$992	N/A
District 4	\$850	\$340	N/A
Total	\$2,720	\$1,088	\$938

COMPARISON OF TIF RATES

The recommended TIF rate:

- Less than national and statewide averages
- Less than comparable cities

Pasco is the only city with a lower TIF rate in the region

TIF Costs per Single Family Residence

Regional	
Nationwide	\$3,256
Northwest Region	\$2,871
Western Washington	\$2,834
Eastern Washington	\$1,524 (per 2015 Study)
Cities	
Ellensburg	\$1,846
Richland	\$1,534 / \$475
West Richland	\$1,435
Kennewick	\$938 (current) \$1,088 (recommended)
Pasco	\$709 / \$0

DETAILED COMPARISON OF TIF RATES

TIF Rate Comparison of Various Land Uses

City	Single Family Home	Specialty Retail Center (8500 sf)	Fast Food w/Drive-Thru (2600 sf)	Medical-Dental Office (10,000 sf)	TIF per PM Peak Hour Trip
Richland (Zone 1)	\$1,534	\$24,690	\$65,176	\$55,208	\$1,534
Richland (Zone 2)	\$475	\$7,641	\$20,169	\$17,085	\$475
West Richland	\$1,449	\$11,051	\$25,607	\$39,391	\$1,435
Pasco	\$709	\$9,719	\$16,716	\$8,544	\$709
Kennewick District 1	\$1,324	\$20,125	\$56,204	\$35,450	\$1,324
Kennewick District 2	\$868	\$13,194	\$36,847	\$23,241	\$868
Kennewick District 3	\$992	\$15,079	\$42,110	\$26,561	\$992
Kennewick District 4	\$340	\$5,168	\$14,433	\$9,104	\$340
Kennewick (Average)	(\$1,088)	(\$16,538)	(\$46,185)	(\$29,131)	(\$1,088)
Kennewick Current	\$938	\$14,258	\$39,818	\$25,115	\$938

Kennewick proposed fees based on a 60% reduction in the maximum allowable Traffic Impact Fee
 (Average) is proposed fee if City kept only one TIF District

RESULTING POSITIVE OUTCOMES

- Expanded list of TIF-eligible projects
- Fees collected pay for projects in their district
- Attract development in targeted areas
- Moderate increase in fees collected to cover expanded project list
- Developers will receive TIF credits for building TIF-eligible projects
- Maintains acceptable Level of Service (low congestion)

NEXT STEPS

June 5th City Council Meeting

- Adoption of the Updated Transportation Impact Fee Program
- Adoption of the Transportation System Plan



FEEDBACK & QUESTIONS

THANK YOU

Council Workshop Coversheet



Agenda Item Number	2.	Meeting Date	05/08/2018
Agenda Item Type	Presentation		
Subject	Upcoming Community Events		
Ordinance/Reso #		Contract #	
Project #		Permit #	
Department	Police Department		

Info Only	☒
Policy Review	☐
Policy DevMnt	☐
Other	☐

Summary

The City of Kennewick continues to be the host of numerous community events during the spring and summer months. Attached is an overview of a few of the larger events supported by Council and Staff.

Through

Scott Child
May 02, 13:32:15 GMT-0700 2018

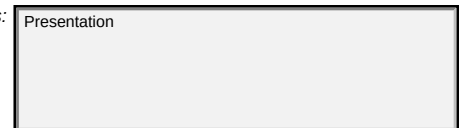
Dept Head Approval

Ken Hohenberg
May 02, 14:46:11 GMT-0700 2018

City Mgr Approval

Marie Mosley
May 02, 20:42:49 GMT-0700 2018

Attachments: Presentation



City of Kennewick

Upcoming Community Events

Spring/Summer 2018

Council Workshop

May 8, 2018



KENNEWICK
WASHINGTON

Public Service Recognition Week BBQ

- May 10, 2018
- 5:30 pm – 7:00 pm
- Southridge Sports Complex



FOP National Police Week Police Memorial

- May 19, 2018
- Columbia Center Rotary Stage
- 12:00 pm – 1:00 pm
- FOP Honor Guard Presentation
- Kadlec Foundation “Kidz Dig Rigz”
- 9:00 am – 2:00 pm
- Free BBQ provided by the Optimus Club



KENNEWICK
WASHINGTON

Latino Heritage Mural Celebration

- May 23, 2018 at 2:00 pm
- Columbia Gardens Urban Wine and Artisan Village
- Meet the artist



KENNEWICK
WASHINGTON

Kennewick School District Crossing Guard Picnic

- May 31, 2018
- 11:00 am – 1:00 pm
- Gesa Carousel of Dreams
- Recognizing 5th grade crossing guards



Sunset at Southridge

- Begins June 1, 2018 and continues every 1st, 3rd and 5th Friday through August
- Free kids activities
- Live entertainment
- \$7 dinner specials from various food vendors



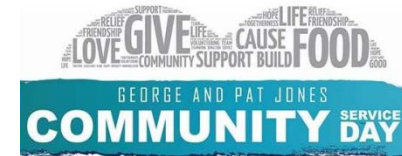
Kennewick School District End of School Celebration

- June 13, 2018
- Gesa Carousel of Dreams
- Partnering with Sylvan Learning Center for a book drive
- Hotdog, chips and drink for each child



Day of Service

- 2nd Annual George & Pat Jones Day of Giving
- June 15, 2018
- 8:00 am-12:00 pm
- Citizens are encouraged to volunteer in Columbia Park
- Free BBQ in Columbia Park at the Rotary Stage



KENNEWICK
WASHINGTON

Special Olympics Final Leg Ceremony

- June 27, 2018 at 10:50 am
- Kennewick Police Department
- Special Olympics athletes are running the flame across the state.



Tri-City Water Follies

River of Fire Celebration

- July 4, 2018
- 3:00pm-11:30pm
- Columbia Park
- Fireworks, beer garden, family fun



KENNEWICK
WASHINGTON

Sustainability FORUM

- July 12, 2018
- 1:00 pm - 5:00 pm
- Three Rivers Convention Center
- Expo, Open House, Lighting Talks



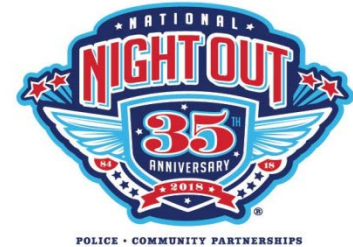
Tri-City Water Follies

- July 27 – 29, 2018
- Columbia Park
- Hydroplane races and air show



National Night Out City Night

- August 7, 2018
- 5:00 pm – 7:00 pm
- Southridge Sports Complex
- Free food to public



Benton/Franklin Counties Fair and Rodeo

- August 21-25, 2018
- Benton County Fair Grounds



Creation Fest Northwest

- Cancelled for the Tri-Cities



KENNEW!CK
WASHINGTON

Questions?



Council Workshop Coversheet



Agenda Item Number	3.	Meeting Date	05/08/2018
Agenda Item Type	Presentation		
Subject	Open Collective Bargaining		
Ordinance/Reso #		Contract #	
Project #		Permit #	
Department	Employee & Community Relations		

Info Only	☒
Policy Review	☐
Policy DevMnt	☐
Other	☐

Summary

Staff will present an overview of the status of open collective bargaining in Washington State. The presentation will include a timeline of the action taken by public employers to open collective bargaining to date, as well as the most recent decision from the Washington State Public Employment Relations Commission.

Through

Corey Osborn
May 02, 17:17:08 GMT-0700 2018

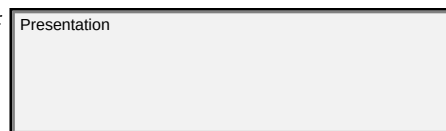
Dept Head Approval

Terry Walsh
May 03, 08:37:33 GMT-0700 2018

City Mgr Approval

Marie Mosley
May 03, 09:13:31 GMT-0700 2018

Attachments: Presentation



**OPEN COLLECTIVE
BARGAINING**
for the
PUBLIC SECTOR
in
WASHINGTON STATE

City Council Workshop
May 8, 2018



Lincoln County

- Lincoln County adopted an open collective bargaining resolution on September 7, 2016
- The resolution applies to two-party bargaining sessions regarding wages, hours, and working conditions
- The resolution does not apply to one-party strategy or policy determination sessions or to enforcement or grievance meetings
- Lincoln County is currently considering an appeal of a recent PERC decision (April 3, 2018 – 12844)



Pullman School District

- Pullman School District adopted an open collective bargaining resolution on January 25, 2017
- The resolution applies to two-party bargaining sessions regarding wages, hours, and working conditions
- The resolution does not apply to one-party strategy or policy determination sessions or to enforcement or grievance meetings
- Pullman School District has negotiated multiple collective bargaining agreements without union opposition



Ferry County

- Ferry County adopted an open collective bargaining resolution on March 6, 2017
- The resolution applies to two-party bargaining sessions regarding wages, hours, and working conditions
- The resolution does not apply to one-party strategy or policy determination sessions or to enforcement or grievance meetings
- Ferry County has engaged in several collective bargaining sessions against union opposition



Tukwila School District

- Tukwila School District adopted an open collective bargaining resolution on July 11, 2017
- The resolution applied to two-party bargaining sessions regarding wages, hours, and working conditions “to the extent feasible”
- The resolution did not apply to one-party strategy or policy determination sessions or to enforcement or grievance meetings
- Tukwila School District rescinded the resolution on February 13, 2018



Kittitas County

- Kittitas County adopted an open collective bargaining ordinance on November 7, 2017
- The ordinance applies to two-party bargaining sessions regarding wages and hours
- The ordinance does not apply to bargaining sessions regarding safe working conditions, and does not apply to one-party strategy or policy determination sessions or to enforcement or grievance meetings
- Kittitas County has not undertaken any collective bargaining efforts since adopting this ordinance



PERC Decision 12844

- PERC issued an unfair labor practice ruling on April 3, 2017
- The decision concluded that both Lincoln County and Teamsters Local 690 committed unfair labor practices by refusing to bargain
- The resolution states: “Lincoln County, its officers and agents, shall immediately... cease and desist from refusing to meet and negotiate with the union unless the bargaining meeting takes place in public.”
- The resolution state: “Teamsters Local 690, its officers and agents, shall immediately... cease and desist from refusing to meet and negotiate with the employer unless the bargaining meeting takes place in private.”



PERC Decision 12844 (CONT.)

- “A party commits an unfair labor practice when it conditions its willingness to bargain on a nonmandatory subject”
- “This agency has consistently ruled that ground rules or bargaining procedures are a nonmandatory subject of bargaining about which parties are not required to bargain”
- “The subject of bargaining in private or public meetings is properly classified as a procedural matter; it constitutes a ground rule addressing the process or protocol for bargaining”
- Lincoln County has stated its intention to appeal the decision and to initiate litigation, if necessary







City Council Meeting Schedule June 2018

June 5, 2018
Tuesday, 6:30 p.m. REGULAR COUNCIL MEETING

June 12, 2018
Tuesday, 6:30 p.m. WORKSHOP MEETING
1. Comp Plan Docketing

June 19, 2018
Tuesday, 6:30 p.m. REGULAR COUNCIL MEETING

June 26, 2018
Tuesday, 6:30 p.m. WORKSHOP MEETING
1.

To assure disabled persons the opportunity to participate in or benefit from City services, please provide twenty-four (24) hour advance notice for additional arrangements to reasonably accommodate special needs.

Please be advised that all Kennewick City Council Meetings are Audio Taped

June 2018
Updated 4/17/18