BEFORE THE BOARD OF COMMISSIONERS OF LANE COUNTY, OREGON

ORDINANCE NO. PA 1344	IN THE MATTER OF CO-ADOPTING THE JUNCTION CITY TRANSPORTATION SYSTEM PLAN FOR APPLICATION WITHIN THE URBANIZABLE AREA OUTSIDE THE JUNCTION CITY LIMITS, BUT WITHIN THE JUNCTION CITY URBAN GROWTH BOUNDARY; AND ADOPTING SAVINGS AND SEVERABILITY CLAUSES. (APPLICANT: JUNCTION CITY)

WHEREAS, the Board of County Commissioners, through enactment of Ordinance No. 1202, has adopted the Lane County Transportation System Plan that is a component of the Lane County Rural Comprehensive Plan; and

WHEREAS, the Junction City Comprehensive Plan is the comprehensive plan for Junction City and is a component of the Lane County Rural Comprehensive Plan; and

WHEREAS, Oregon Administrative Rules (OAR) Section 660, Division 12, specifies the requirements of the Oregon Transportation Planning Rule that requires cities and counties to prepare and adopt local transportation system plans for lands within their planning jurisdiction as part of their comprehensive plans [OAR 660-12-015(3) & (4)]; and

WHEREAS, the Junction City Transportation System Plan (TSP) is a comprehensive 20-year plan to guide transportation investments within the Junction City Urban Growth Boundary; and

WHEREAS, the Junction City Council adopted the Junction City TSP Update on September 13, 2016; and

WHEREAS, Junction City requested Lane County co-adopt the Junction City TSP as an amendment to the Junction City Comprehensive Plan and Lane County Rural Comprehensive Plan for application within the urbanizable area outside the Junction City Limits, but within the Junction City Urban Growth Boundary; and

WHEREAS, the Lane County Planning Commission conducted a public hearing on January 3, 2017, and provided a recommendation to the Board of County Commissioners to co-adopt the Junction City TSP as presented; and

WHEREAS, substantial evidence exists in the record indicating that the proposal meets the applicable requirements of the Lane Code Chapter 16 and the Transportation Planning Rule at OAR 660-012; and

WHEREAS, the Board of County Commissioners conducted a first reading of this Ordinance on March 21, 2017, conducted a second reading and public hearing on this Ordinance on April 11, 2017, and is now ready to take action.

NOW, THEREFORE, the Board of County Commissioners **Ordains** as follows:

1. Amendments to the Junction City Comprehensive Plan and Lane County Rural Comprehensive Plan with the Junction City Transportation System Plan as shown in Exhibit 'A' are hereby co-adopted.

2. The prior policies repealed or changed by this Ordinance remain in full force and effect to authorize prosecution of persons in violation thereof prior to the effective date of this Ordinance.

3. If any section, subsection, sentence, clause, phrase or portion of this Ordinance is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct, and independent provision, and such holding shall not affect the validity of the remaining portions thereof.

FURTHER, although not part of this Ordinance, the Board of County Commissioners adopts findings as set forth in Exhibit 'B' attached and incorporated by this reference, in support of this action.

ENACTED this 11th day of April, 2017.

Pat Farr, Chair, Lane County Board of Commissioners

Recording Secretary for this Meeting of the Board

APPROVED AS TO FORM
Date 3-14-17 Lane County
OFFICE OF LEGAL COUNSEL

Junction City
Transportation System Plan

Volume I: The Plan

PREPARED FOR

City of Junction City

PREPARED BY

Sandow Engineering

May 2016

Acknowledgements

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Volume II

Useful Abbreviations and Acronyms

AASHTO – American Association of State Highway and Transportation Officials
ADA – Americans with Disabilities Act
CAC – Citizen Advisory Committee
CIP – Capital Improvement Program
City – City of Junction City
County – Lane County
DLCD – Department of Land Conservation and Development
ETC – Employee Transportation Coordinator
FHWA – Federal Highway Administration
LCOG – Lane Council of Governments
LID – Local Improvement District
LOS – Level of Service
MPO – Metropolitan Planning Organization
NTM – Neighborhood Traffic Management
OAR – Oregon Administrative Rule
ODOT – Oregon Department of Transportation
OHP – Oregon Highway Plan
OTC – Oregon Transportation Commission
PNWR – Portland & Western Railroad
ROW – Right-of-Way
SDC – System Development Charge
STIP – Statewide Transportation Improvement Program
TAC – Technical Advisory Committee
TDM – Transportation Demand Management
TPR – Transportation Planning Rule
TSP – Transportation System Plan
UGB – Urban Growth Boundary
UGMA – Urban Growth Management Agreement
URD – Urban Renewal District
UPRR – Union Pacific Railroad
VMT – Vehicle Miles Traveled

CHAPTER 1: INTRODUCTION

The 2036 Junction City Transportation System Plan (TSP) provides a long range plan to guide transportation infrastructure improvements necessary to accommodate the City's needs as it grows and changes through the year 2036. The City of Junction City recently completed a periodic review process and subsequent Comprehensive Plan update. The update included:

- An expansion of the Urban Growth Boundary (UGB) to meet 20-year industrial, commercial, residential, and park land needs
- Re-designation and rezoning of properties located in the Professional Technical classification to Residential
- Re-designation of properties from Low to Medium density residential development
- Adoption of a Wetland Protection Program

Junction City's Transportation System Plan (TSP) serves as the transportation element of the City's Comprehensive Plan. This update of the TSP was completed to maintain consistency with the recently updated Comprehensive Plan and to align the future transportation system with planned growth.

The Junction City TSP update occurred in coordination with Lane County, the Oregon Department of Transportation (ODOT), and the Department of Land Conservation and Development (DLCD). It includes a thorough review of the existing transportation system and describes future multimodal recommendations to address local transportation needs through the year 2036, in compliance with the Transportation Planning Rule (TPR). The TSP serves as a valuable planning tool for staff, policy makers, and the public. Having an adopted TSP establishes function, capacity, and location of future transportation facilities, informs the community of the level of investment needed for facilities to support anticipated growth and development, and better positions the City to compete for transportation funding.

THE TRANSPORTATION SYSTEM PLAN

- Provides long-range direction for the development of transportation facilities and services for cars, bikes, pedestrians, and transit

- Ensures the planned systems are adequate to meet the needs of planned land uses

- Facilitates the cost-effective use of public funds

- Demonstrates transportation project need and readiness

PLAN OVERVIEW

The 2036 TSP provides an evaluation of the existing transportation infrastructure and the ability to accommodate the expected growth in population and economic opportunities through year 2036. The evaluation considered the infrastructure capacity to facilitate the expected increase and changed in vehicle traffic and identification of improvement options.

The plan also includes an evaluation and recommendations to improve connections and pathways for pedestrian and bicycle travel.

The plan includes:

- 20-year planning horizon estimation of the growth in employment and households within the City UGB
- Estimation of impacts to the existing street network from the vehicle traffic added by the additional employment and households
- Estimation of impacts to the existing street network from through travel on the City streets
- Evaluation of the needed improvements to facilitate the expected increase in vehicle traffic
- Evaluation of needed infrastructure to improve pedestrian and bicycle access throughout the City.
- List of 20 year projects with priority and funding opportunities

TSP DEVELOPMENT PROCESS

This plan was prepared with both public and agency participation. A Citizen Advisory Committee (CAC) was appointed by City Council to advise City staff and the consultant team and to provide recommendations to the Planning Commission and City Council. The CAC met a total of five times and included representatives from City Council, the Lane County Roads Advisory Committee, City Planning Commission, local businesses, and interested citizens.

A Technical Advisory Committee (TAC) was established to provide input from affected agencies and service providers. The TAC met a total of four times and included representatives from Junction City, Lane County, ODOT, DLCD, Lane Rural Fire/Rescue, and Lane Transit District.

An Alley Access Management Subcommittee was formed from representatives of ODOT, the City, and the CAC. This committee met one time to discuss issues with use of the public alleys for property access as required by the OR 99 Junction City Refinement Plan.

Public open houses were held at key milestones in the TSP development process. Citizen input was incorporated into the plan via both the public open house forums as well as surveys that could be accessed via the internet to make formal comments on the proposed projects. Open houses were advertised via mailings, online postings, and postings made in public places.

The Junction City TSP development process included discussion of goals and objectives, evaluation of existing and future needs, consideration of potential solutions, development of the TSP document and implementing ordinances, and adoption by the City and Lane County.

ORGANIZATION

Chapter 1: Provides a brief overview of the Transportation System Plan elements.

Chapter 2: Summarizes the goals and policies that help to guide the determination and planning for the future street network improvements.

Chapter 3: Summarizes the process taken to determine how and where the future growth will occur and the impacts to the system.

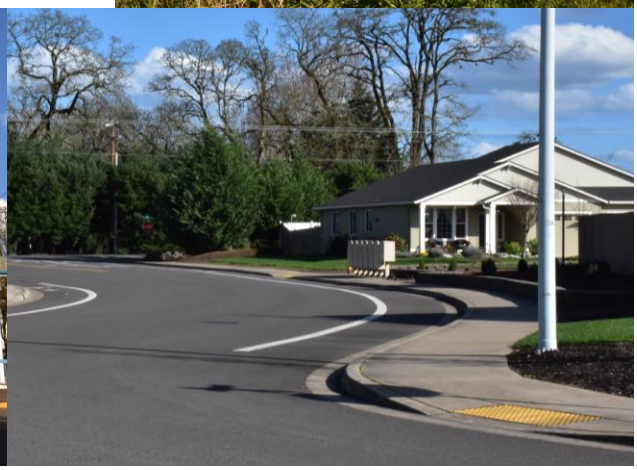
Chapter 4: Provides a plan for improvements to the pedestrian network.

Chapter 5: Provides a plan for improvements to the bicycle network.

Chapter 6: Provides a plan for improvements to the vehicle network.

Chapter 7: Provides a plan for improvements to the other modes, including rail, transit, pipeline, and waterway.

Chapter 8: Identifies possible funding opportunities and implementation of the planned projects.



CHAPTER 2: TRANSPORTATION MISSION, GOALS, AND POLICIES

This chapter presents the transportation-related mission, goals, and policies for the City of Junction City. These were used to guide development of the Junction City TSP and are intended to continue to provide direction for decision-making into the future.

The mission statement is the overall vision regarding transportation in Junction City. The goals are broad statements of philosophy that describe the hopes of people in the community for the future. Each goal is developed around a topic area. A goal may never be completely attainable, but is used as a point toward which to strive. Policies are statements that provide a specific course of action moving the community toward the attainment of its goals. Each new capital improvement project, land use application, or implementation measure must be consistent with the policies. Once adopted, the mission, goals, and policies, as well as the project lists, will become part of Junction City's Comprehensive Plan.

MISSION STATEMENT

Enhance the quality of life in Junction City by providing a balanced transportation system that meets the travel needs of the community.

GOALS AND POLICIES

GOAL 1: Provide a balanced transportation system that offers alternatives to single-occupant automobiles.

Policy 1a: Where new walkways are built or where crossings are rebuilt, they shall be built to City standards and incorporate handicapped accessibility features as required by state and federal law.

Policy 1b: Pedestrian access to transit facilities from new commercial, residential, and high employment uses and community activity centers shall be provided. Existing commercial, residential, and high employment uses and community activity centers shall provide safe and accessible pedestrian access to transit facilities when a site changes use or is retrofitted.

Policy 1c: Streets, bikeways, and walkways shall be designed to meet the needs of pedestrians and cyclists to promote safe and convenient non-motorized circulation within the community. Unless there is a convenient alternative, all new principal arterial, minor arterial, and collector streets shall provide bicycle and pedestrian facilities.

Policy 1d: Maintenance and repair of existing bike and pedestrian facilities shall be given no less than equal priority to the maintenance and repair of motor vehicle facilities.

Policy 1e: Encourage trip reduction strategies and programs that reduce automobile use during peak travel periods.

Policy 1f: Advocate for expanded local transit services to increase transit ridership and help reduce traffic congestion.

GOAL 2: Provide a safe transportation system.

Policy 2a: City streets shall be designed to efficiently and safely accommodate emergency service vehicles.

Policy 2b: Coordinate with the Oregon Department of Transportation, Junction City School District, and Junction City Police Department to implement safety education programs including pedestrian crossing education for school children.

Policy 2c: Designate safe routes to school for each school in the city. Update designated routes for all new residential developments.

Policy 2d: Priority shall be given to the maintenance, repair, and handicapped accessible improvement of walkways and bikeways along designated safe routes to school and railroad crossings.

Policy 2e: Work with ODOT to improve the safety of OR 99 pedestrian crossings.

GOAL 3: Provide a transportation system that is designed, constructed, and maintained in a manner that enhances Junction City's quality of life.

Policy 3a: Transportation system improvements will be sensitive to the community's aesthetics and will strive to retain a sense of community, particularly in the downtown area of Junction City, which is seen as critical to the town as a focal center.

Policy 3b: Transportation improvement designs shall be responsive to topography and shall minimize impacts to natural, scenic, historic, and open space resources.

GOAL 4: Mange the transportation system by working cooperatively with federal, state, regional, and local governments, as well as private sector businesses and residents.

Policy 4a: Coordinate transportation projects, policy issues, and development actions with all affected governmental units and service providers in the area.

Policy 4b: Changes in the frequency of transit and rail services that are not inconsistent with the Transportation System Plan shall be allowed without land use review.

Policy 4c: For State projects that require an Environmental Impact Study (EIS) or Environmental Assessment (EA), the draft EIS or EA shall serve as the documentation for local land use review if local review is required. Where the project is consistent with the Transportation System Plan, formal review of the draft EIS or EA and concurrent or subsequent compliance with applicable development standards or conditions. Where the project is

not consistent with the Transportation System Plan, formal review of the draft EIS or EA and concurrent completion of necessary goal exceptions or plan amendments.

Policy 4d: The City shall coordinate with the Oregon Department of Transportation to implement the highway improvements listed in the Statewide Transportation Improvement Program (STIP) that are consistent with the City's TSP and comprehensive plan.

Policy 4e: Procedures for the coordination between the City and Lane County on developments that impact county transportation facilities are identified in the City/County Urban Growth Management Agreement (UGMA). The City shall adhere to the UGMA procedures in order to protect Lane County's interests in said facilities.

GOAL 5: Establish stable and flexible transportation revenue streams to support ongoing maintenance, operations, and system expansion.

Policy 5a: Develop a long-range financial strategy to implement needed transportation improvements and support operational and maintenance requirements.

Policy 5b: Consider new transportation revenue sources and implement them when feasible and appropriate.

Policy 5c: New transportation revenue sources shall maintain flexibility in allowed uses as much as possible to allow for use towards facilities for any mode of travel, new facility construction, and the maintenance and operation of existing facilities. Regulations pertaining to existing revenue sources shall be amended where possible to allow for such flexibility in use.

GOAL 6: Protect the function and efficiency of existing and future transportation facilities.

Policy 6a: When making a land use decision, the City shall consider the impact of the new development on the existing and planned transportation facilities. Notice of all land use changes located on state or county roads shall be sent to the respective jurisdiction, and comments from same shall be included in the official record.

Policy 6b: Consider the potential to establish or maintain bikeways or walkways prior to the vacation of any public right-of-way.

Policy 6c: At the time of land development or land division, the City shall require the dedication of additional right-of-way when necessary to obtain adequate street widths and bikeways and walkways in accordance with the TSP.

Policy 6d: For improvements designated in the TSP, the following activities shall be allowed without land use review:

- Dedication of right-of-way

- Authorization of construction and the construction of facilities and improvements
- Classification of the roadway and approved road standards

Policy 6e: The City will require the extension of the city street system wherever possible, thereby increasing connectivity. In all cases where it is reasonable, land divisions shall continue existing streets, set aside right-of-way for future streets and intersections that will promote connectivity, and continue the city's grid system. Cul-de-sacs and other low-connectivity street types shall be discouraged except where topography, land development patterns, or natural, scenic, historic, and open space resources preclude high-connectivity street patterns. Where cul-de-sacs and other low-connectivity street types are used, shared-use paths may be required for bicycle and pedestrian users.

Policy 6f: Adopt street mobility standards for street intersections within the city. Signalized intersections shall operate at a level of service (LOS) D or better during the weekday peak hour, with stop and yield-controlled intersection approaches allowed to operate at a level of service E or better. Level of service shall be based on the most recent edition of the Highway Capacity Manual. Where a facility is under the jurisdiction of the County or ODOT, their standards shall apply.

Policy 6g: Operation, maintenance, repair, and preservation of existing transportation facilities shall be allowed without land use review, except where specifically regulated.

Policy 6h: Implement access management standards and policies to reduce conflicts on roadways within the city.

Access points to state and local roadways, in the form of private driveways and public street intersections, provide network connectivity and access to adjacent properties. However, they also introduce conflict points that can have negative impacts on safe and efficient travel. Therefore, the planning, design, and operation of access points to state and local roadways in a manner that appropriately balances the need for access and connectivity to support local development with safe and efficient operations is of interest to the City of Junction City, Lane County, and the Oregon Department of Transportation.

The City, County, and ODOT have adopted individual policies and regulations related to access management that apply to the roadways under their respective jurisdictions within Junction City. Future decisions regarding the planning, design, and operation of access to the roadways in Junction City shall be governed by the applicable regulations of each agency at the time of the decision. The City and County access-related regulations are included in each jurisdiction's zoning codes and their policies are provided in their respective comprehensive plans and TSPs. ODOT's access-related regulations are provided in OAR 734-051 and its policies are provided in the Oregon Highway Plan (OHP). The City should coordinate the access management on ODOT and Lane County roadways to provide a balanced transportation system.

Oregon Highway 99

Oregon Highway 99 is the principle roadway and carries by far the most traffic in Junction City. It also has the greatest number of access points and safety issues within the City. Because of its key role within the transportation system, the City, County, and ODOT have agreed that the following policy statements shall be considered as part of all future decisions related to access points within the Oregon Highway 99 corridor.

- Each agency shall focus on safety when making decisions regarding access to Oregon Highway 99, keeping in mind economic development needs and objectives of property served by the access points.
- Recognize that the safety and mobility of the highway are generally improved by minimizing conflict points through actions such as reducing the number of access points and increasing the separation between them.
- The unique challenges of providing appropriate access to adjacent lands shall be considered. Specific examples include:

  Oregon Highway 99 from 18th Avenue to 1st Avenue

  This segment of the corridor is characterized by lower posted speeds (30 mph), a comprehensive grid system of local streets creating intersections on the highway every 300 feet, the presence of parallel alleys, and fully developed general commercial land uses on small lots. It also serves as a principal commercial corridor through the city. There are many constraints that may make the reduction of access points impractical in some areas. Nonetheless, as land uses change and properties reconfigure, and within the framework of the local code and OAR 734-051, ODOT and the City shall collaborate to identify opportunities for consolidating or sharing access points and developing cross easements that reduce the need for travel on Oregon Highway 99.

  Oregon Highway 99 from 1st Avenue to Meadowview Road

  This segment of the corridor is characterized by higher posted speeds (45 to 55 mph), a mix of adjacent commercial and industrial land, and as a transition area between the urban and rural areas. The larger lots and higher potential for redevelopment may provide new opportunities to minimize conflicts on the highway through actions such as consolidating access, establishing shared access points, developing cross easements, and constructing parallel streets connecting to lower classified roadways. In consideration of the higher travel speeds that could result in higher severity collisions, opportunities to minimize access points shall be explored by the City, County, and ODOT when considering access changes.

CHAPTER 3: TSP PROCESS

The 2036 TSP provides a policy and planning framework that aligns the transportation infrastructure with the future needs and goals of the City. This process included input from the City policy makers, advisory committees, and community members to ensure that a balanced transportation system is created that meets the needs of all modes of transportation in the City.

The following summarizes the process used to determine and evaluate the existing and future deficiencies and needs.

EXISTING CONDITIONS ANALYSIS

The existing conditions analysis evaluated how the City's transportation infrastructure operates while considering traffic volumes, safety/crash patterns, travel route options, and opportunities for safe pedestrian and bicycle travel.

Vehicle Travel: Traffic volumes were collected at key intersections and roadways through the city. The vehicle travel evaluation considered how the existing roadways and intersections were operating based on a Level of Service (LOS) and volume-to-capacity (V/C) standard. Policy 6f of this plan identifies that the City has set a target of performance at a LOS D or better for signalized intersections and a LOS E or better for stop control intersections. ODOT and Lane County use a V/C based standard. The LOS standard evaluates operation on the level of comfort to a driver based on an average delay per vehicle over an hour while the volume-to-capacity evaluates the ability of the intersection to serve the demand over an hour. In existing conditions, all intersections operate better than the target standards. There are no capacity related deficiencies in the current system that need to be addressed.

However, LOC and V/C are only part of the consideration when evaluating the transportation infrastructure. Other factors to include are safety and circulation.

Overall the crash rates within Junction City are lower when compared to other communities of similar size. However, there were a significant number of crashes occurring at the signalized intersections along Highway 99. (Highway 99 at 10th Ave. had 25 crashes in the previous 5 years). Over 60% of the crashes at the signalized intersections were a result of left turning vehicles on Highway 99 colliding with through traffic.

Overall, Junction City has a good grid system which allows for many route choices through the city and reducing the overburden of a few roadways. There are multiple route options for users to get to key locations throughout the city. As a majority of the buildable housing areas are to the west, the major east-west

connectors are expected to have an increase in traffic.

Pedestrian Travel: Sidewalks are provided along Highway 99, however, there are very few safe crossing opportunities. Crosswalks are only provided at signalized intersections and are located 0.25 to 0.50 miles apart. The distance needed to walk to a signalized crossing may be seen as a significant barrier to pedestrians and limit pedestrian activities between the east and west sides of the City.

Overall, the City has an incomplete network of available sidewalks and pedestrian paths. This incomplete network of sidewalks creates a barrier from safe pedestrian travel between neighborhoods and destinations such as schools and parks.

Bicycle Travel: Junction City has a very limited bicycle network. Most bicycle travel has to be done by sharing roadway facilities with vehicles or on roadway shoulders.

2036 FORECAST ANALYSIS

The year 2036 traffic volumes create a baseline for assessing the future transportation system needs. The year 2036 traffic volumes reflect the household and employment estimates the City will experience within the next 20 years. The estimates are based on expected growth within Junction City, Lane County, and surrounding communities. Table 1 illustrates the year 2015 and year 2036 population and employment estimates for within Junction City's UGB.

Table 1: Junction City Growth Estimates

	Year 2015	Year 2036	Growth
Population	6,463	8,700	5,593 (35%)
Households	2,664	3,700	1,036 (40%)
Employees	3,545	5,680	2,135 (60%)

The employment and population growth was allocated to parcels in the UGB with the appropriate land use designations and to those that are likely to be developed by the year 2035. A majority of the new housing will be located on the west side of town, more specifically, west of Oaklea Drive. The new employment will be generated by new commercial and industrial developments with a majority occurring along Highway 99.

The year 2036 traffic volumes were developed by converting future household and employment data into vehicle trips and routing the traffic through the City from developable properties to reasonable origins and destinations within the City and outside the City.

The analysis evaluated the capacity and level of service of higher order intersections and roadways with the added traffic. All intersections were found to operate better than the mobility standard. Therefore, there are no capacity improvements that are needed by the year 2036. The appendix details the analysis methodology and results.

The needs assessment has identified safety and connectivity improvements for all modes of travel. The preceding chapters detail the improvement plan for each mode.

CHAPTER 4: PEDESTRIAN PLAN

Existing and future pedestrian facilities and needs in Junction City were evaluated and described in reports that have been included in the appendix. This chapter includes the pedestrian component of the TSP which consists of improvements identified to meet future needs through the year 2036. Priority projects that could be constructed with anticipated available funding have been identified as part of a "Financially Constrained Plan" described in Chapter 7.

PEDESTRIAN SYSTEM NEEDS

The existing pedestrian network was evaluated and used along with future growth projections and input from stakeholders to identify pedestrian needs in Junction City. Visits to the field by the project team, feedback from the TAC and CAC, and comments provided by community members at the open houses and through surveys have all contributed to the list of pedestrian facility improvements. Some of the general deficiencies identified in the pedestrian system include:

- Lack of sidewalks and/or sidewalk gaps on arterial and collector streets in areas outside of the downtown grid network
- Poor street connectivity in some neighborhoods makes walking less convenient
- Lack of safe and consistent walking facilities along some routes to schools
- Lack of ADA accessible curb ramp and/or sidewalk construction outside of the downtown grid network that makes access difficult for persons with disabilities
- The condition of some railroad crossings can be challenging for the elderly and disabled
- Sidewalk maintenance, especially in older neighborhoods, is needed to repair severely damaged and flooded areas
- Lack of comfortable crossing opportunities on high-volume, high-speed streets such as OR 99
- Shared-use paths are present, but not connected into a comprehensive network

PEDESTRIAN SYSTEM IMPROVEMENTS

Improvements to the pedestrian network include sidewalk infill and new sidewalk construction projects, shared-use path connections, and street crossing improvements. Shared-use path connections and street crossing improvements also benefit bicycle transportation, but are only listed under the Pedestrian Plan.

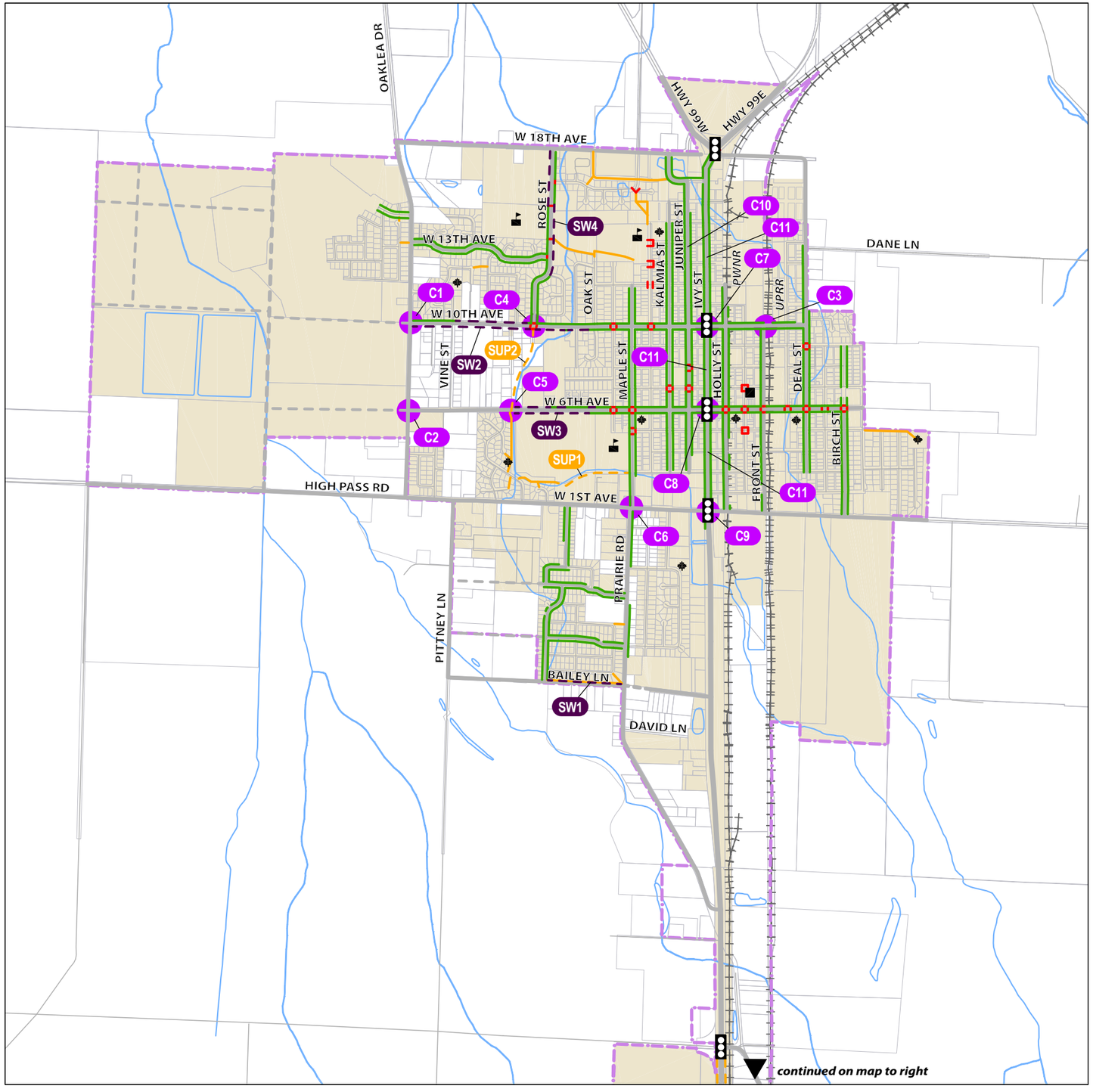
Design for pedestrian improvements on non-city streets need to be coordinated with the jurisdictional authority. The plan is intended to provide flexibility to meet the standards and needs at the time of project design.

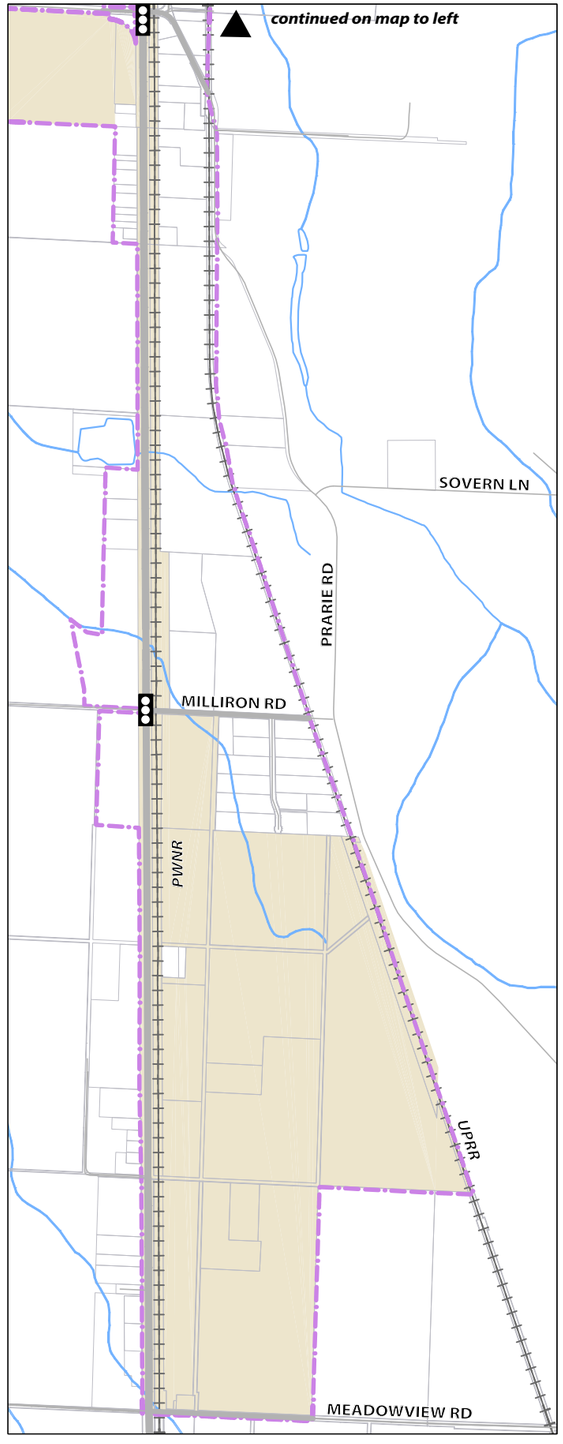
Sidewalk infill and new sidewalk construction projects are listed in Table 2, which includes Project ID numbers to help locate improvements. The project descriptions include key benefits for use in future grant applications and strategic planning. New roadway and roadway modernization projects that would include the construction of sidewalk or pedestrian facilities appropriate to the street classification of the roadway are listed under the Motor Vehicle Plan and are not shown here.

Table 2: Sidewalk Infill/Construction Projects

Project ID	Project Description	Probable Construction Costs*
SW1	**Bailey Ln**: Pitney Ln to Quince St – Sidewalk construction on north side in UGB ***Key Benefits: Pedestrian Connectivity***	$235,000
SW2	**W 10th Ave**: Oaklea Dr to Maple St - Sidewalk construction/infill ***Key Benefits: Pedestrian Connectivity, Safe Routes to School***	$610,000
SW3	**W 6th Ave**: Timothy St to Pine Ct - Sidewalk construction/infill ***Key Benefits: Pedestrian Connectivity, Safe Routes to School***	$320,000
SW4	**Rose St**: W 18th Ave to W 13th Ave – Sidewalk infill ***Key Benefits: Pedestrian Connectivity, Safe Routes to School***	$315,000
SWG	**General Infill:** Infill of missing sidewalk throughout the City and the replacement of sidewalk that no longer meets current design or ADA standards	N/A
	Total Cost	**$1,480,000**

* Probable construction costs should be used for planning purposes only. Each project cost estimate should be revisited when determining specific project funding needs.





Junction City
Transportation System Plan

FIGURE 1

Proposed Pedestrian Network Improvements

Legend

Network Improvments
- SIDEWALK INFILL/ CONSTRUCTION (SW)
- SHARED USE PATH (SUP)
- POINT/CROSSING (C)
- XX PEDESTRIAN PROJECT NUMBER

Existing Pedestrian Facilities
- MARKED CROSSWALK
- SIDEWALK
- SHARED USE PATH
- TRAFFIC SIGNAL

Roadways
- *ARTERIAL*
- *MAJOR COLLECTOR*
- *MINOR COLLECTOR*
- *LOCAL*
- *CITY LIMITS*
- *URBAN GROWTH BOUNDARY*
- *TAX LOTS*
- *RAILROAD*
- *STREAM*

Places of Interest
- *CITY HALL*
- *PARK*
- *PUBLIC SCHOOL*

N W E S

0 1000 2000 Feet

The projects proposed in Tables 3 and 4, including street crossing improvements and shared-use paths, will provide benefits to both cyclists and pedestrians traveling in Junction City. The improvement locations and project descriptions can be seen in Figure 1. Note that Project C11 in Table 3 includes safety education programs to provide a cost-effective supplement to the construction projects in the plan.

Example of high-visibility continental crosswalk

Key street crossing improvements, such as those identified in Table 3, can improve the livability of neighborhoods and encourage community members to use alternate modes of transportation by removing barriers to biking and walking. All crossing improvement locations identified shall include the construction of ADA-compliant curb ramps where not currently available. At school crossings and mid-block crossings, high-visibility continental crosswalks (example shown above) shall be used.

Marked crosswalks at not at controlled locations (signal or approach that has a stop sign) will only be considered when an engineering study determines their need and the location meets the following criteria:

- Good visibility of the crosswalk is provided from all directions. Provision of adequate stopping sight distance is a minimum.
- There is no reasonable alternative crossing location.
- There is established pedestrian usage or anticipated use. Considerations include: volume of pedestrians, opportunity for safe crossing (i.e., sufficient gaps in traffic), percentage of elderly or young children, and the nature of the land uses on both sides of the road. Lower pedestrian volumes would be acceptable for areas where there are greater proportions of less experienced and less agile pedestrians (e.g., near schools).
- Posted speeds are 35 mph or less.
- The volume of traffic should not exceed 10,000 average daily vehicles. If the volume of traffic is greater than this or the crossing is on a multi-lane highway, pedestrian crossing enhancements (e.g., curb extensions, pedestrian refuge islands) should be considered.

Table 3: Street Crossing Improvements

Project ID	Project Description	Probable Construction Costs#
C1	**Oaklea Dr/W 10th Ave**: As part of the Oaklea Dr. road modernization project (MV11), install intersection lighting, consider refuge island/curb extensions, and reevaluate need for crosswalk pavement markings. ***Key Benefits: Safety, Safe Routes to School, Pedestrian/Bicycle Connectivity***	$45,000
C2	**Oaklea Dr/W 6th Ave**: As part of the Oaklea Dr. road modernization project (MV11), install intersection lighting, consider refuge island/curb extensions, and reevaluate need for crosswalk pavement markings. ***Key Benefits: Safety, Safe Routes to School, Pedestrian/Bicycle Connectivity***	$45,000
C3	**E 10th Ave/Front St**: Connect existing sidewalk on north side of E 10th Ave to provide an accessible railroad crossing. Replace curb ramps on all corners to meet ADA standards. ***Key Benefits: Safety, ADA Accessibility, Safe Routes to School, Pedestrian/Bicycle Connectivity***	$30,000
C4	**W 10th Ave/Rose St**: Project should be constructed before or as part of project SUP2. Evaluate user needs at this location; consider improved intersection lighting, striping the crosswalk on the south leg of the intersection, and converting existing crosswalks to continental style. ***Key Benefits: Safety, Safe Routes to School, Pedestrian/Bicycle Connectivity***	$15,000
C5	**W 6th Ave/Shared-Use Path Connection**: Project should be constructed concurrently with project SUP2. Evaluate user needs at this location; consider enhanced pavement markings and signage. ***Key Benefits: Safety, Safe Routes to School, Pedestrian/Bicycle Connectivity***	$5,000
C6	**W 1st Ave/Prairie Rd/Maple St**: As an interim improvement, construct curb extensions on the opposing west corner of Maple St and east corner of Prairie Rd to enhance pedestrian visibility and shorten the crossing distance. ***Key Benefits: Safety, Safe Routes to School, Pedestrian/Bicycle Connectivity***	$30,000
C7	**W 10th Ave/OR 99**: Enhance pedestrian crossing by upgrading pedestrian signal heads to countdown pedestrian signals. Upgrade pedestrian signals by using audible signals. Upgrade signal head backplates with retroreflective borders. ***Key Benefits: Safety, ADA Accessibility, Safe Routes to School***	$20,000
C8	**W 6th Ave/OR 99**: Install intersection lighting (currently no lighting on mast arms). Enhance pedestrian crossing by upgrading pedestrian signal heads to countdown pedestrian signals. Upgrade pedestrian signals by using audible signals. Upgrade signal head backplates with retroreflective borders. ***Key Benefits: Safety, ADA Accessibility, Safe Routes to School***	$35,000
C9	**W 1st Ave /OR 99**: Enhance pedestrian crossing by upgrading pedestrian signal heads to countdown pedestrian signals. Upgrade pedestrian signals by using audible signals. Upgrade signal head backplates with retroreflective borders. ***Key Benefits: Safety, ADA Accessibility, Safe Routes to School***	$20,000

Project ID	Project Description	Probable Construction Costs#
C10	**Juniper St:** Provide raised pedestrian crossings at key locations along Juniper Street. Possible locations include W 14th Street and W 13th Street ***Key Benefits: Safety, Pedestrian/Bicycle Connectivity***	$40,000
C11	**OR 99 from W 18th Ave to W 1st Ave**: Install pedestrian activated crossing treatments on OR 99. Consider including Rectangular Rapid Flashing Beacons (RRFBs), advanced stop bars, curb ramps, and striped crosswalks at mid-block locations between: • W 15th Ave and W 12th Ave • W 9th Ave and W 7th Ave • W 5th Ave and W 3rd Ave ***Key Benefits: Safety, Pedestrian/Bicycle Connectivity***	$140,000
C12	**Education**: Many free educational materials are available. Coordinate with the Oregon Department of Transportation, Junction City School District, and Junction City Police Department to implement safety education programs including pedestrian crossing education for school children. ***Key Benefits: Safety, Safe Routes to School***	Variable
	Total Cost	$425,000

*The installation of RRFBs requires an investigation and approval from the State Traffic-Roadway Engineer. Any mid-block improvements on a State Freight Route will require review concerning freight mobility. The National Cooperative Highway Research Program (NCHRP) Report 572 outlines a process to identify the appropriate type of crossing treatment at unsignalized locations. It was envisioned that RRFBs would be installed, but a pedestrian activated beacon or signal could also be the appropriate treatment.

Probable construction costs should be used for planning purposes only. Each project cost estimate should be revisited when determining specific project funding needs.

Shared-use paths benefit both pedestrians and cyclists, providing the most comfortable facilities for encouraging active transportation and recreation. Three shared-use path alignments have been identified in this plan that help connect the existing paths to form a continuous network between the schools and provide travel options to the employment area at the south end of the city. The paths are described in Table 4 with general alignments shown in Figure 1.

Figure 2 illustrates a recommended design for all future shared-use paths constructed in the city.

- In constrained areas, vertical clearance may be reduced to a minimum of 8 feet with warning signage.
- Where path abuts existing or proposed hard surface, shoulders shall be paved to tie into the hard surface.
- In constrained areas, the paved surface width may be reduced to a minimum of 8 feet. In areas where usage may be high or where bicycle speeds may be high, a minimum paved surface width of 12 feet is recommended.

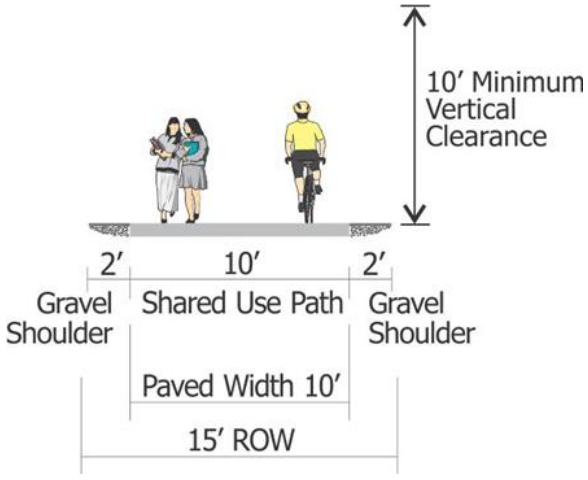


Figure 2: Shared-Use Path Typical Cross-Section

Table 4: Shared-Use Paths

Project ID	Project Description	Probable Construction Costs*
SUP1	**Southern Edge of Junction City High School, Connecting Existing Shared-Use Path to Maple Street**: Alignment may require right-of-way or easement. ***Key Benefits: Pedestrian/Bicycle Connectivity, Safe Routes to School, Livability***	$195,000
SUP2	**Rose Street Alignment from W 10th Avenue to W 6th Ave**: Provides needed access between middle school and high school and provides a continuation of the existing path around the high school. Alignment will require right-of-way acquisition or easements and must cross a ditch. ***Key Benefits: Pedestrian/Bicycle Connectivity, Safe Routes to School, Livability***	$550,000
	Total Cost	**$745,000**

* Probable construction costs should be used for planning purposes only. Each project cost estimate should be revisited when determining specific project funding needs.

CHAPTER 5: BICYCLE PLAN

Existing and future bicycle facilities and needs in Junction City were evaluated and described in reports that have been included in the appendix. This chapter includes the bicycle component of the "Preferred Plan," which consists of all transportation improvements identified to meet future needs through the year 2036. Priority projects that could be constructed with anticipated available funding have been identified as part of a "Financially Constrained Plan" described in Chapter 7.

BICYCLE SYSTEM NEEDS

As was done for the pedestrian system, existing and future bicycle system needs were identified through field visits, analysis of future development potential, discussions with committee members, and public input provided through open houses. Some of the general needs identified include:

- No bicycle facilities are provided on HWY 99 between the Flat Creek Bridge and 3rd Avenue. No bicycle facilities are provided on any streets within the City off of HWY 99.
- Separate biking facilities are needed on higher volume streets such as HWY 99, Prairie Road, High Pass Road, Oaklea Drive, and 18th Avenue.
- Provisions for secure and convenient bicycle parking are generally infrequent.
- Poor connectivity in some areas creates longer trips for bicycle travel.
- Many of the existing shared-use paths are eight feet wide, which can be slightly narrow for mixed bicycle and pedestrian travel.
- There are few convenient and safe crossing opportunities along HWY 99.
- Creating safe biking routes to schools should be a priority.

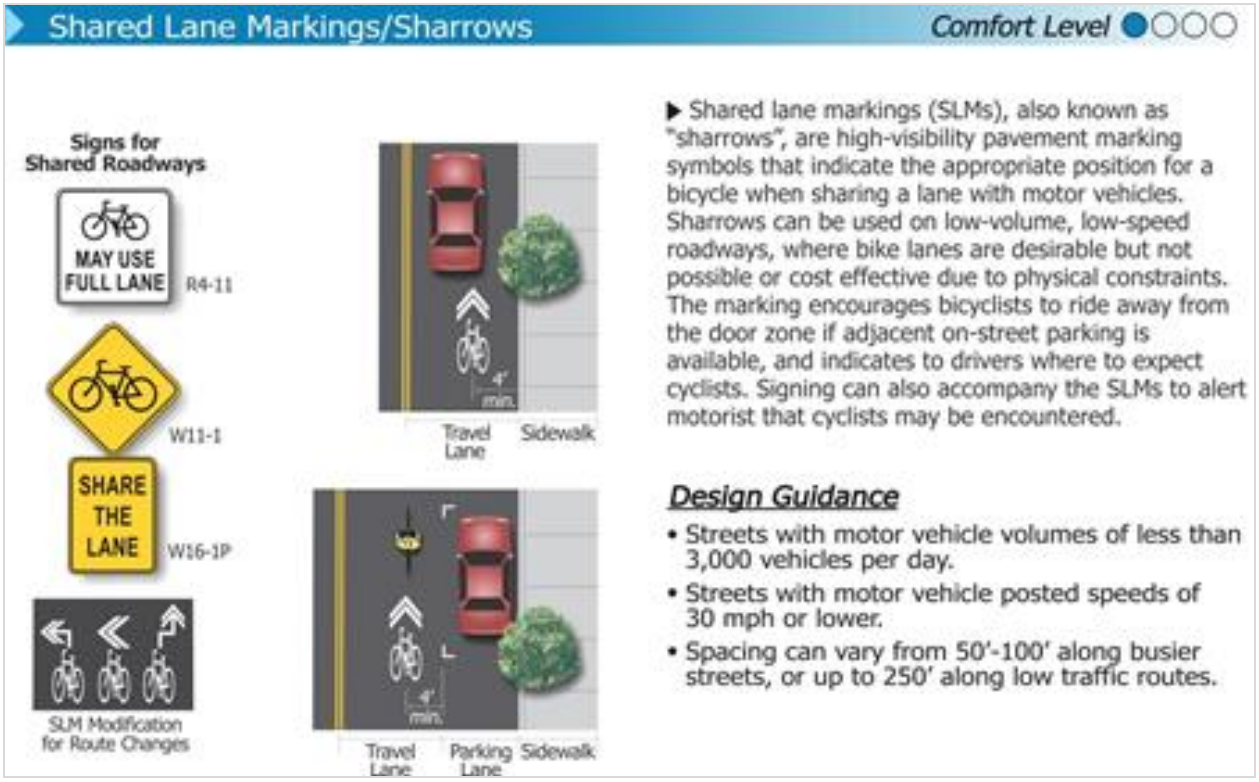
BICYCLE SYSTEM IMPROVEMENTS

While Junction City currently has few dedicated bicycle facilities, many of the existing roadways have space available to provide for bike facilities, but would need to be restriped and signed to accommodate them. The bicycle facility design guide below was developed to characterize the types of bicycle facilities being recommended as part of the Junction City TSP. The types of bicycle facilities increase from the lowest comfort level to the highest comfort level. The highest comfort level is a shared-use path, which provides complete separation from

motor vehicle traffic and gives cyclist a dedicated space in the transportation network. Design elements for Shared Lane Markings/Sharrows, Shoulder Bikeways, Standard Bike Lanes, Bike Boulevard, Buffered bike Lane, and Shared-Use Path are shown in the following design guide images.

Design for pedestrian improvements on non-city streets need to be coordinated with the jurisdictional authority. The plan is intended to provide flexibility to meet the standards and needs at the time of project design.

Bicycle Facility Design Guide[1]



[1] Reference Documents: MUTCD 2009, NACTO Urban Bikeway Design Guide, AASHTO Guide for Development of Bicycle Facilities, ODOT Bicycle and Pedestrian Design Guide 2011

Shoulder Bikeways

Comfort Level ●●○○

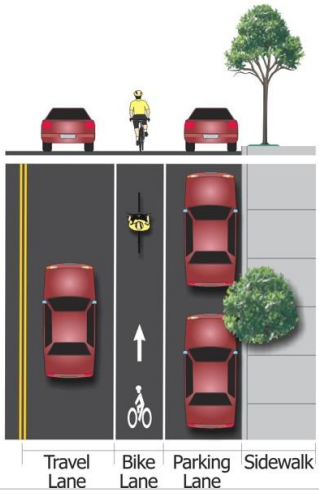
▶ A shoulder bikeway is a paved shoulder that provides space for bicycling. This designated area is denoted by an edge line, provides separation for bicyclists, reduces conflicts with faster moving motor vehicles, and is commonly found on rural roads.

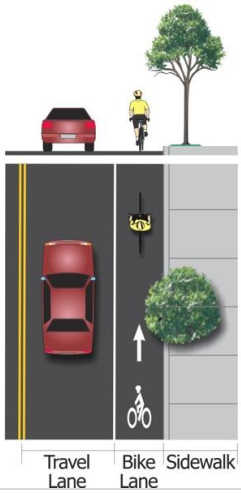
Design Guidance

- A minimum shoulder width of 6′ is recommended.
- A minimum shoulder width of 4′ may be used when a curb, guardrail, or roadside barrier is not present. Otherwise, a minimum width of 5′ is recommended.
- Edge line is designated by a 4″ stripe.

Standard Bike Lane

Comfort Level ●●○○





▶ Bike lanes are used to designate space for exclusive use by bicyclists. Bike lanes are denoted by a solid white line, bike lane symbols, and can be accompanied by signing. Most often bike lanes are intended for one-way travel in the same direction as adjacent traffic lanes, although contraflow and left side bike lanes have been used. Application of bike lanes is appropriate on arterial and collector streets with higher motor vehicle volumes and speeds.

Design Guidance

- Streets with motor vehicle volume of 3,000 vehicles per day or more.
- Streets with posted motor vehicle speed of 25 mph or higher.
- Use 8″ stripe to designate a bike lane.
- Recommended width is 6′, with a minimum of 4′ on open shoulders or 5′ from face to curb, guardrail, or parked car.
- Bike lanes should not be wider than 7′ so drivers do not mistake the lane for parking.

Bike Boulevard

Comfort Level ●●○○

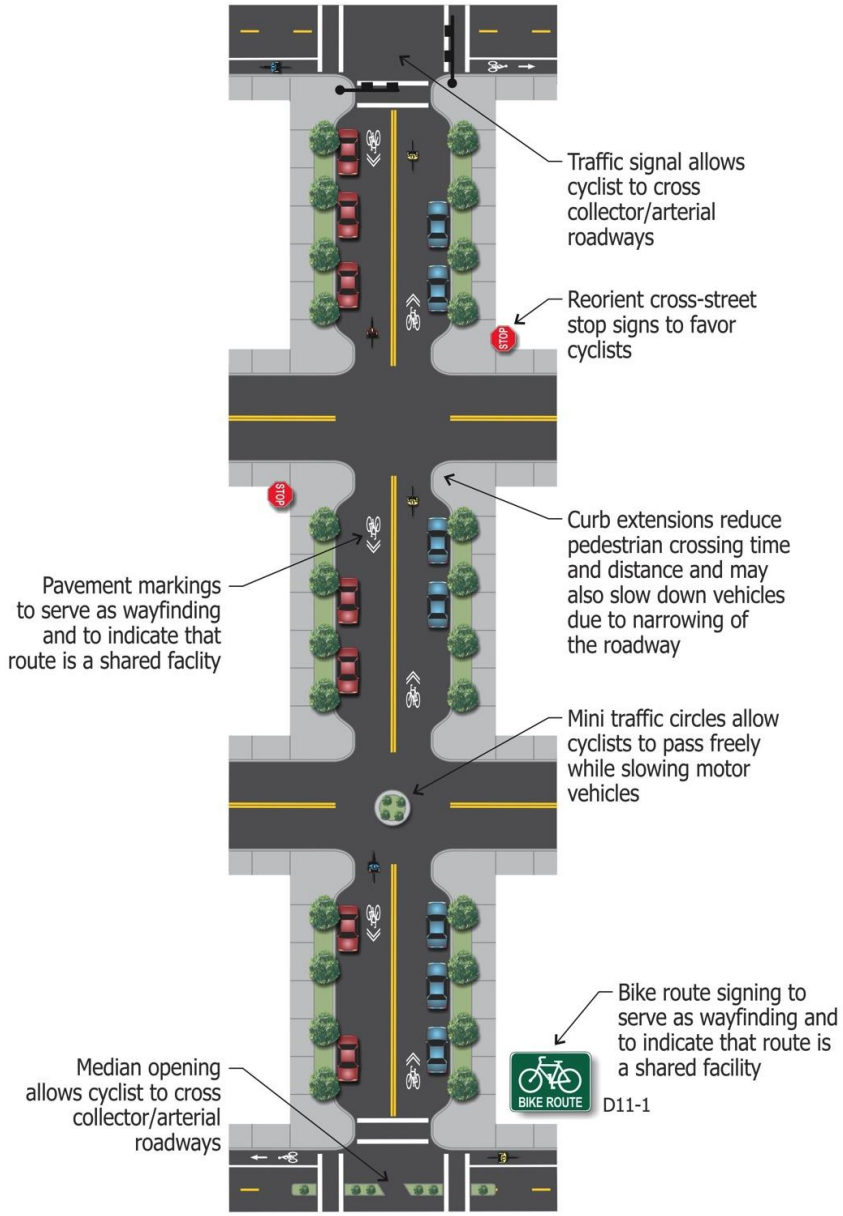


Illustration is one example of a bike boulevard. Treatments applied may vary.

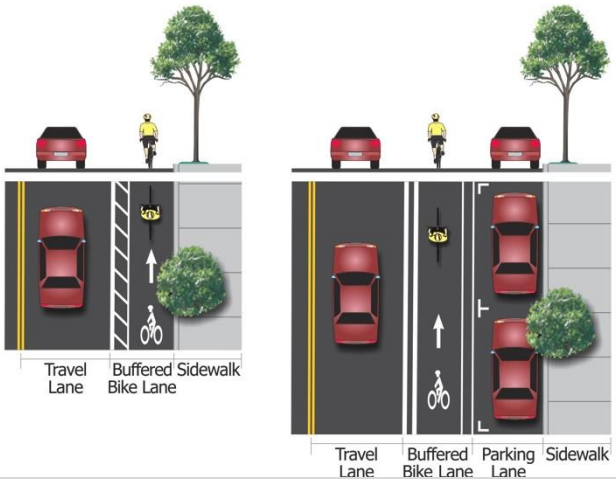
▶ A bike boulevard is a roadway with low motor vehicle speeds and volumes that has been modified to prioritize the movement of bicycles. These facilities use a variety of design treatments to discourage through trips by motor vehicles and to create a safe and comfortable environment for cyclists. Treatments include signing and pavement markings, along with traffic calming measures.

Design Guidance

- Streets with less than 3,000 motor vehicles per day.
- Streets with posted speeds of 25 mph or lower.

Buffered Bike Lane

Comfort Level ●●●○



▶ A buffered bike lane is a standard bike lane paired with a delineated buffer space, which further separates the bike lane from the adjacent motor vehicle travel lane and/or parking lane, to increase bicyclist comfort. This treatment can be used on streets with excess width to provide more separation for bicyclist, or when there are high motor vehicle volumes, speed, and/or high amounts of truck traffic.

Design Guidance

- Standard bicycle bike lane (5′ to 6′) with an additional 2′ to 4′ striped buffer.
- Streets with posted speeds of 25 mph or higher.
- Locations where standard bike lanes are being considered and additional space for buffering is desired to increase cyclist comfort.

Shared Use Path

Comfort Level ●●●●

▶ Shared use paths are used by pedestrians, bicyclists, skaters, and many other community members. Paths include continuous separation from motor vehicle traffic, frequent connection to land uses including schools and shopping, provide some security to users through illumination and proximity to housing or businesses, have scenic qualities, and well-designed street crossings.

Design Guidance

- Shared use paths are commonly 10′ wide for two-way traffic in rural and suburban areas, but should be 12′ wide or wider where usage or bicycle speeds may be high.
- Minimum width for a shared use path is 8′ wide to be used at pinch points or where low volumes are expected.
- Proper sight distance should be maintained.
- Path should be illuminated for night time users.

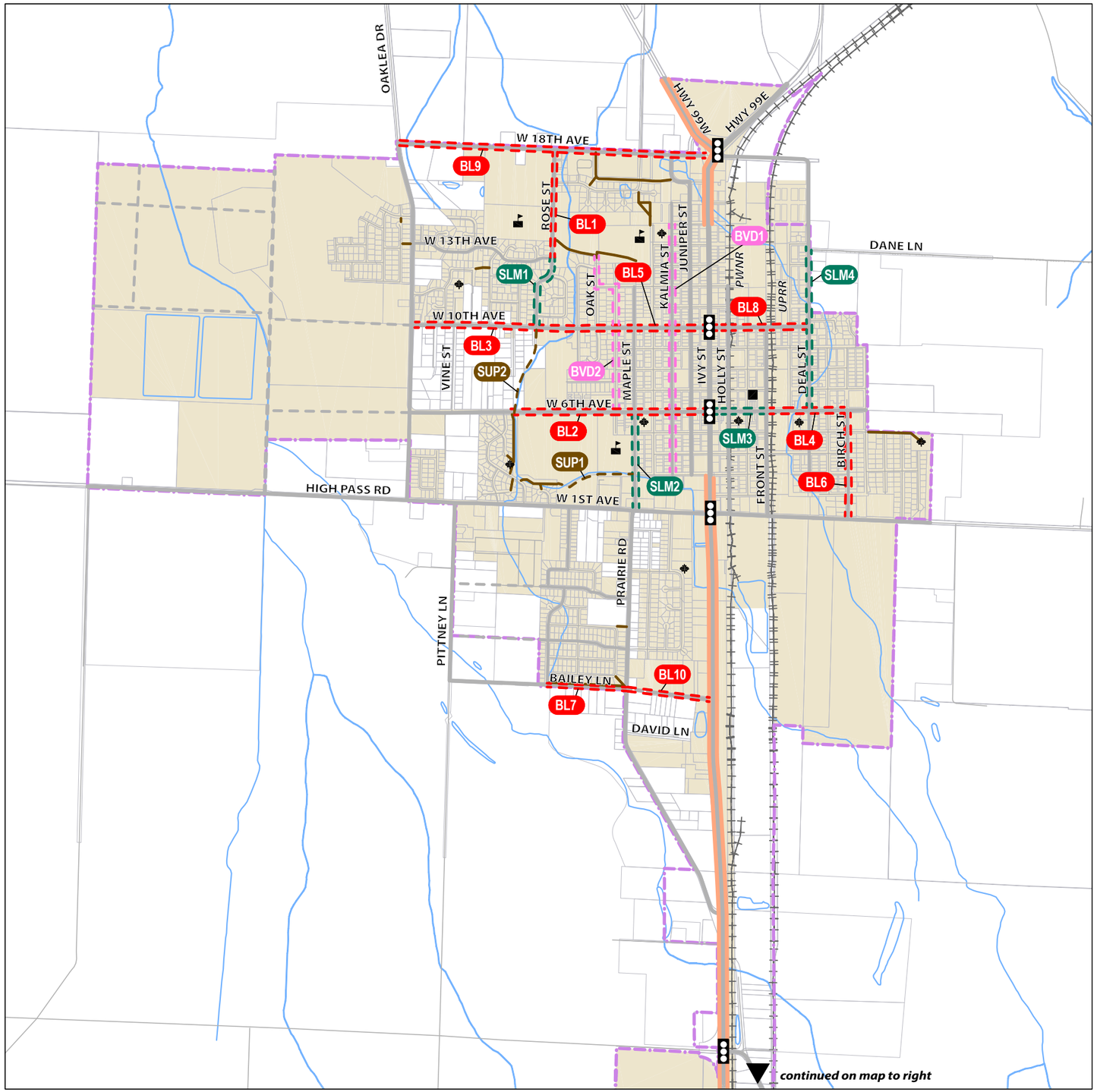
Proposed bicycle improvements are described in Table 5, which includes Project ID numbers to help locate improvements on Figure 3. The project descriptions include key benefits for use on future grant applications and strategic planning. Construction of new roadways or roadway modernizations identified in the Motor Vehicle Plan are not included in Table 5, but will include the construction of bicycle facilities appropriate to the functional classification of the street. Also, shared-use path connections and street crossing improvements that benefit bicycle transportation are listed under the Pedestrian Plan.

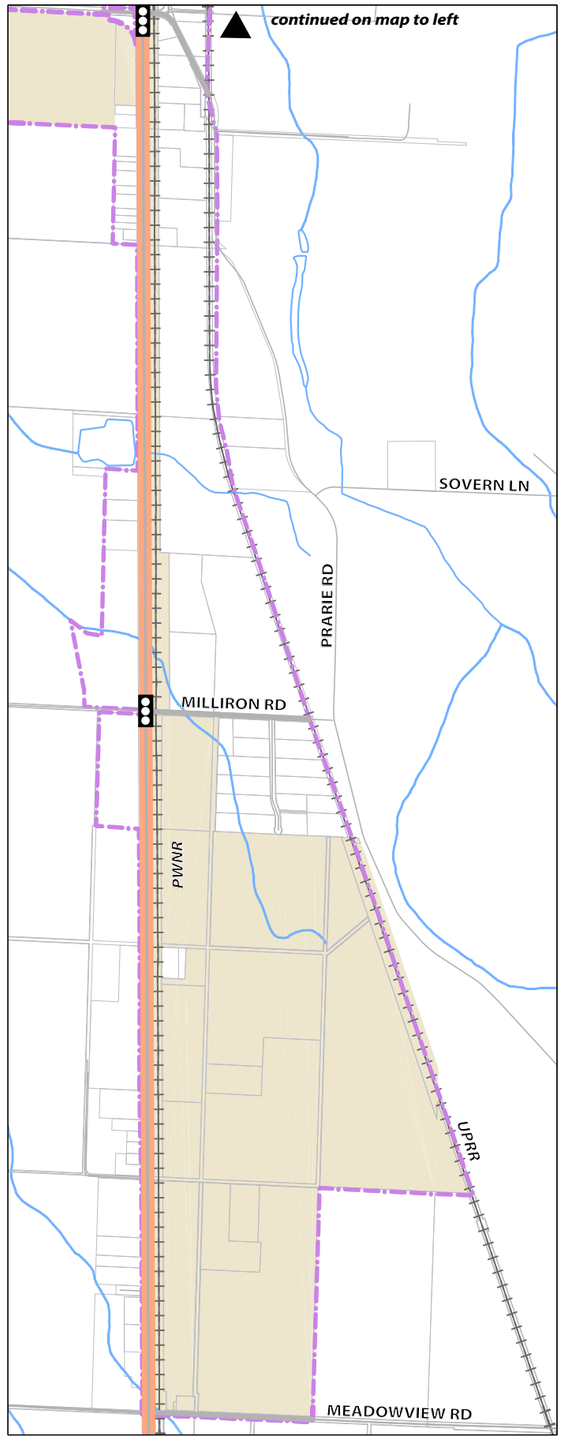
Table 5: Bicycle Facility Improvements

Project ID	Project Description	Probable Construction Costs*
BL1	**Rose St**: W 18th Ave to W 13th Ave: Bike Lanes - Roadway would need to be restriped to remove on-street parking. ***Key Benefits: Bicycle Connectivity, Safe Routes to School***	$65,000
BL2	**W 6th Ave**: Timothy Pl to HWY 99: Bike Lanes - Need to restripe roadway to include 8' parking aisles, 6' bike lanes, 11' travel lanes. ***Key Benefits: Bicycle Connectivity, Safe Routes to School***	$125,000
BL3	**W 10th Ave**: Oaklea Dr to Nyssa St: Bike Lanes - Roadway would need to be restriped to remove on-street parking. Need community feedback about utilization of existing on-street parking. ***Key Benefits: Bicycle Connectivity, Safe Routes to School***	$125,000
BL4	**E 6th Ave**: Front St to Birch St: Bike Lanes - Would need to restripe roadway to include 8' parking aisles, 6' bike lanes, 11' travel lanes. ***Key Benefits: Bicycle Connectivity, Safe Routes to School***	$50,000
BL5	**W 10th Ave**: Nyssa St to HWY 99: Bike Lanes – Would require parking removal on one side of the street to include one 8' parking aisle, 6' bike lanes, 11' travel lanes. Need community feedback about utilization of existing on-street parking. ***Key Benefits: Bicycle Connectivity, Safe Routes to School***	$60,000
BL6	**Birch St**: E 1st Ave to E 6th Ave: Bike Lanes - Need to restripe roadway to include 7' parking aisles, 5' bike lanes, 11' travel lanes. ***Key Benefits: Bicycle Connectivity***	$65,000
BL7	**Bailey Ln**: Pitney Ln to Prairie Rd: Bike lane on north side and south side. ***Key Benefits: Bicycle Connectivity***	$105,000
BL8	**10th Street:** Highway 99 to Deal Street-Restripe roadway to provide bike lanes. Would require the removal of on-street parking. ***Key Benefits: Bicycle Connectivity, Safe Routes to School***	$20,000
BL9	**18th Street:** Widen Rodway to provide bike lanes on both sides of the roadway. Alternatively, a shared use path could be constructed on the north side. ***Key Benefits: Bicycle Connectivity***	$1,500,000
BL10	**Hatton Lane:** Prairies Road to Highway 99. Provide striped bike lanes as part of the roadway reconstruction and connection. ***Key Benefits: Bicycle Connectivity***	$5,000
BVD1	**Kalmia Street:** Shared Lane Markings and traffic calming techniques on Kalmia Street from W 14th Ave to W 3rd Ave as appropriate to create a bicycle boulevard with low volume and low speed motor vehicle use. ***Key Benefits: Bicycle Connectivity***	$45,000

BVD2	**Nyssa St/Oak St**: Laurel Elementary School to W 6th Ave: Install Shared Lane Markings and traffic calming techniques as appropriate to create a bicycle boulevard with low volume and low speed motor vehicle use. Alignment would run north on Nyssa St from W 6th Ave, cross W 10th Ave, turn west on W 12th Ave, and turn north on Oak St to connect to the shared-use path at Laurel Elementary School. Consider installing an All-Way stop at the intersection on W 10th Ave with Nyssa St and crossing enhancements at the intersection on W 6th Ave with Nyssa St. ***Key Benefits: Bicycle Connectivity, Safe Routes to School***	$45,000
SLM1	**Rose St**: W 13th Ave to W 10th Ave: Shared-Lane Markings - Existing on-street parking is actively used. Supplemental warning signs should be installed leading into the curve. ***Key Benefits: Bicycle Connectivity, Safe Routes to School***	$5,000
SLM2	**Maple St**: W 6th Ave to W 1st Ave: Shared-Lane Markings ***Key Benefits: Bicycle Connectivity, Safe Routes to School***	$10,000
SLM3	**E 6th Ave**: HWY 99 to Front St: Shared-Lane Markings – Traffic volumes are higher than preferred, but speeds are low. Recommend converting angled on-street parking to parallel parking to enhance cyclist visibility. ***Key Benefits: Bicycle Connectivity, Safe Routes to School***	$5,000
SLM4	**Deal St**: E 6th Ave to Dane Ln: Shared-Lane Markings ***Key Benefits: Bicycle Connectivity***	$15,000
	Total Cost	**$2,245,000**

* Probable construction costs should be used for planning purposes only. Each project cost estimate should be revisited when determining specific project funding needs.





Junction City
Transportation System Plan

FIGURE 3

Proposed Bicycle Network Improvements

Legend

Network Improvments
- SHARED LANE MARKINGS (SLM)
- BIKE LANE (BL)
- SHARED USE PATH (SUP)
- BIKE BOULEVARD (BVD)
- XX BICYCLE PROJECT NUMBER

Existing Bicycle Facilities
- SHOULDERED BIKE LANE
- SHARED USE PATH
- TRAFFIC SIGNAL

Roadways
- *ARTERIAL*
- *MAJOR COLLECTOR*
- *MINOR COLLECTOR*
- *LOCAL*
- *CITY LIMITS*
- *URBAN GROWTH BOUNDARY*
- *TAX LOTS*
- *RAILROAD*
- *STREAM*

Places of Interest
- *CITY HALL*
- *PARK*
- *PUBLIC SCHOOL*

N W E S

0 1000 2000 Feet

CHAPTER 6: MOTOR VEHICLE PLAN

The Motor Vehicle Plan provides direction for the management and expansion of the roadway network to meet the needs of Junction City through the year 2036. The plan provides strategies to achieve local transportation goals by improving system capacity, efficiency, safety, and connectivity.

The existing motor vehicle facilities in Junction City were inventoried and described in a technical memorandum that has been included in the appendix. This chapter describes the street functional classification system, roadway cross-section standards, access management standards, neighborhood traffic management strategies, recommended motor vehicle projects, and transportation demand management strategies.

STREET SYSTEM MANAGEMENT AND DESIGN

Proper management and design of Junction City's existing and future streets are essential practices for ensuring the street network will be able to function as intended.

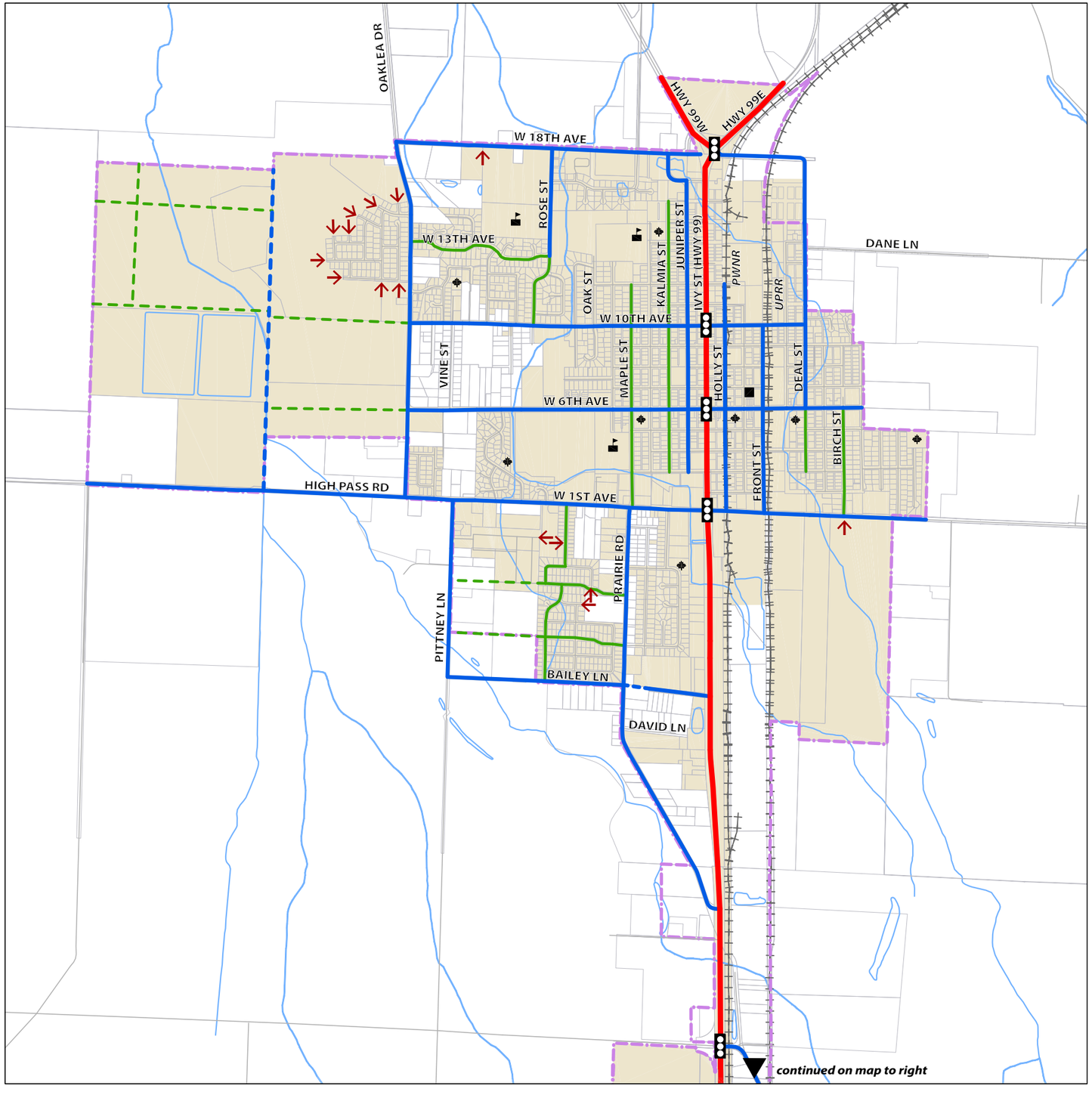
STREET FUNCTIONAL CLASSIFICATION

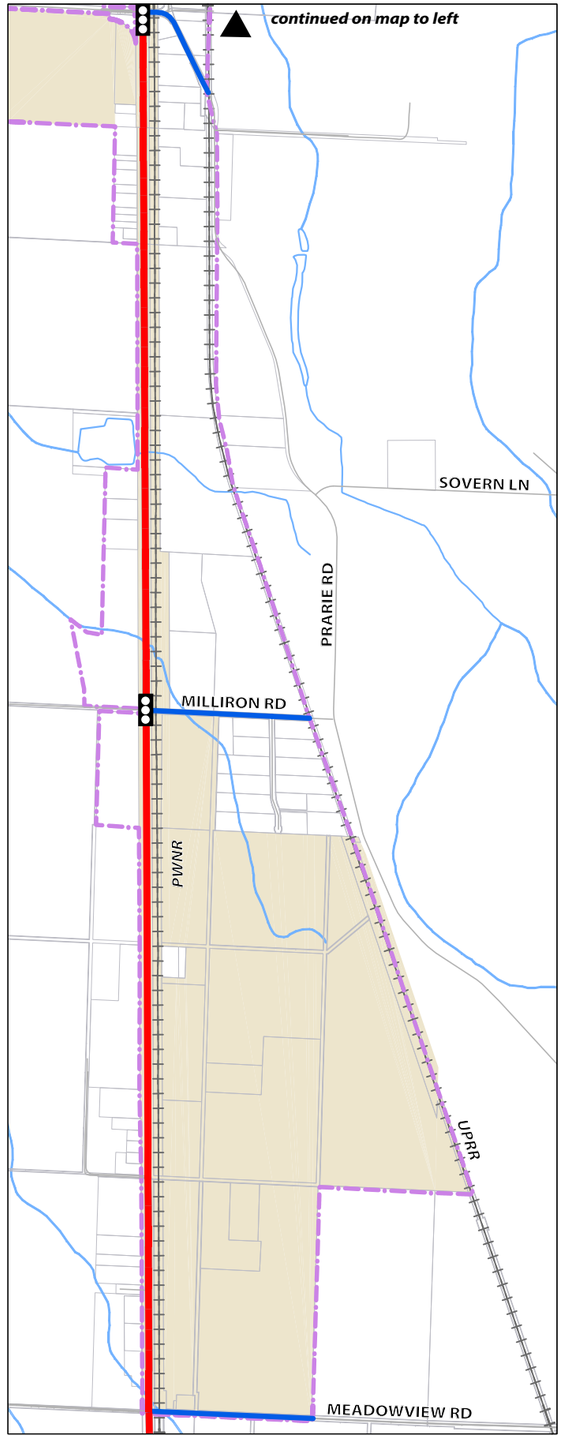
Street functional classification is an important tool for managing the roadway network. It is based on a hierarchal system of roads with designated management and design requirements to achieve the type of service desired.

A number of changes were made to the City's functional classification system as part of this TSP update. This included aligning the classifications with existing and future uses in the City and to update the design standards for each classification to meet the City's needs.

The new functional classification system for roadways in Junction City is described below, including the management objectives for each class. A functional classification map is provided in Figure 4, showing the classification for all roadways in the city, including new street extensions proposed as part of the motor vehicle system improvements.

EXHIBIT A to Ordinance No. PA 1344





Junction City
Transportation System Plan

FIGURE 4

Proposed Future Roadways, Functional Classification, and Local Street Connectivity

Legend

TRAFFIC SIGNAL

Roadways

- PRINCIPAL ARTERIAL
- MAJOR COLLECTOR
- NEIGHBORHOOD COLLECTOR
- FUTURE MAJOR COLLECTOR
- FUTURE NEIGHBORHOOD COLLECTOR
- LOCAL
- POTENTIAL LOCAL STREET CONNECTION

- *CITY LIMITS*
- *URBAN GROWTH BOUNDARY*
- *TAX LOTS*
- *RAILROAD*
- *STREAM*

Places of Interest

- *CITY HALL*
- *PARK*
- *PUBLIC SCHOOL*

N W E S

0 1000 2000 Feet

PRINCIPAL ARTERIAL

Principal arterials are primary routes serving regional traffic passing through the city and connecting the city to other urban areas. They are intended to serve high volumes of traffic over long distances, typically maintain higher posted speeds, and minimize direct access to adjacent land to support the safe and efficient movement of people and goods. Inside of the urban growth boundary, speeds may be reduced to reflect the roadside environment and surrounding land uses.

MAJOR COLLECTOR STREET

A Major Collector street provides access and circulation within and between residential, commercial, industrial, and mixed use lands. Collector streets provide more citywide circulation while still accessing neighborhoods. They collect traffic from local streets and channel them onto the arterial system.

NEIGHBORHOOD COLLECTOR STREET

A neighborhood collector street provides access and circulation to residential neighborhoods. These types of streets are found only in residential neighborhoods. In general, the ROW and roadway widths are narrower than Major Collector streets but allow for uses that are necessary in residential neighborhoods, such as on-street parking, lower speeds, and shared bicycle facilities.

LOCAL STREET

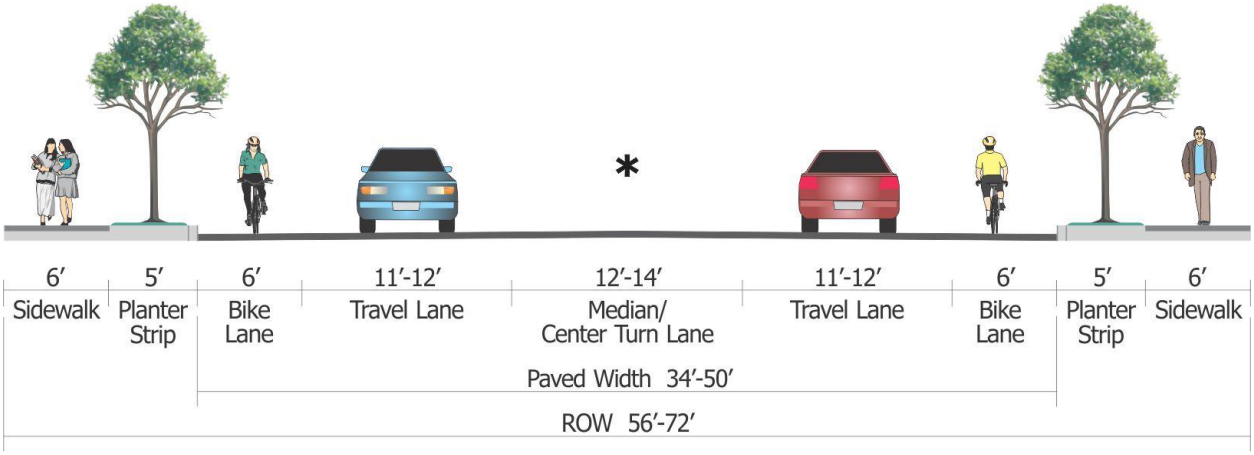
Local streets provide immediate access to adjacent land. These streets are designed to enhance the livability of neighborhoods and should generally accommodate less than 2,000 vehicles per day. When traffic volumes reach 1,000 to 1,200 vehicles per day through residential areas, safety and livability can be degraded. A well-connected grid system of relatively short blocks can minimize excessive volumes of motor vehicles and encourage use by pedestrians and cyclists. Speeds are not normally posted, with a statutory 25 mph speed limit in effect.

TYPICAL ROADWAY CROSS-SECTION STANDARDS

The design characteristics of city streets in Junction City were developed to meet the function and demand for each facility type. Because the actual design of a roadway can vary from segment to segment due to adjacent land uses and demands, the objective was to define a system that allows standardization of key characteristics to provide consistency, but also to provide criteria for application that provides some flexibility, while meeting the design standards.

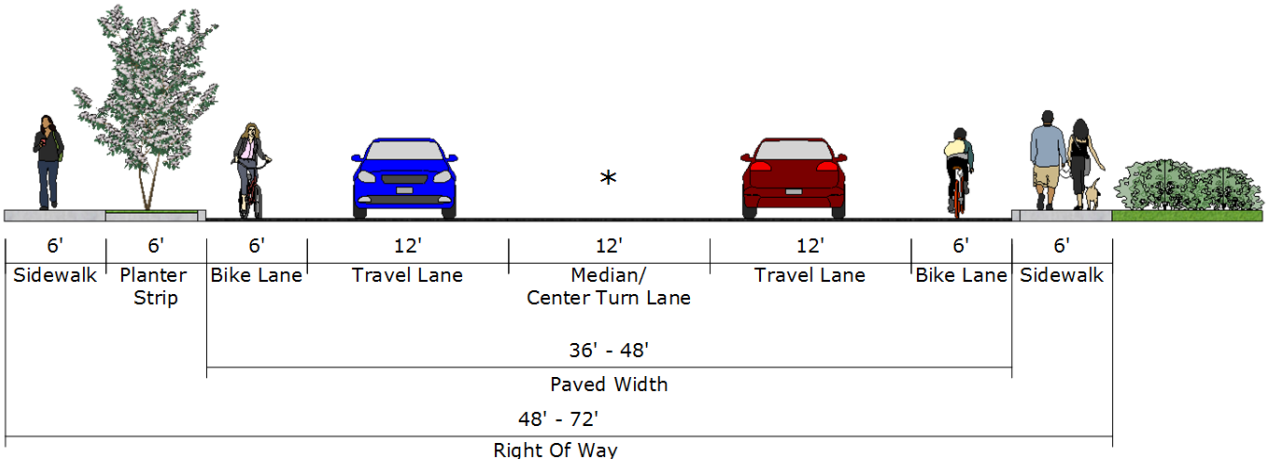
Figures 5, 6, 7, and 8 illustrate the recommended cross-section standards for City arterials, major collectors, neighborhood collectors, and local streets in Junction City.

Figure 5: Arterial Cross-Section Standard



- The preferred width of travel lanes on arterials is 11 feet. In industrial areas or areas where the truck percentage of average daily traffic is 10% or more within a 12-hour period, travel lane widths should be increased to 12 feet.
- Center turn lane is optional depending on surrounding land use and available right-of-way.
- The minimum width of center turn lanes on arterials is 12 feet. In industrial areas or areas where the truck percentage of average daily traffic is 10% or more within a 12-hour period, center turn lane widths should be increased to a minimum of 14 feet.
- Recommended sidewalk widths are 6 feet.
- Recommended planter strip widths are 5 feet.
- Minimum bike lane widths of 5 feet may be allowed in constrained areas.
- On-street parking is permitted on arterial streets when the roadway speeds are less than 35 mph.

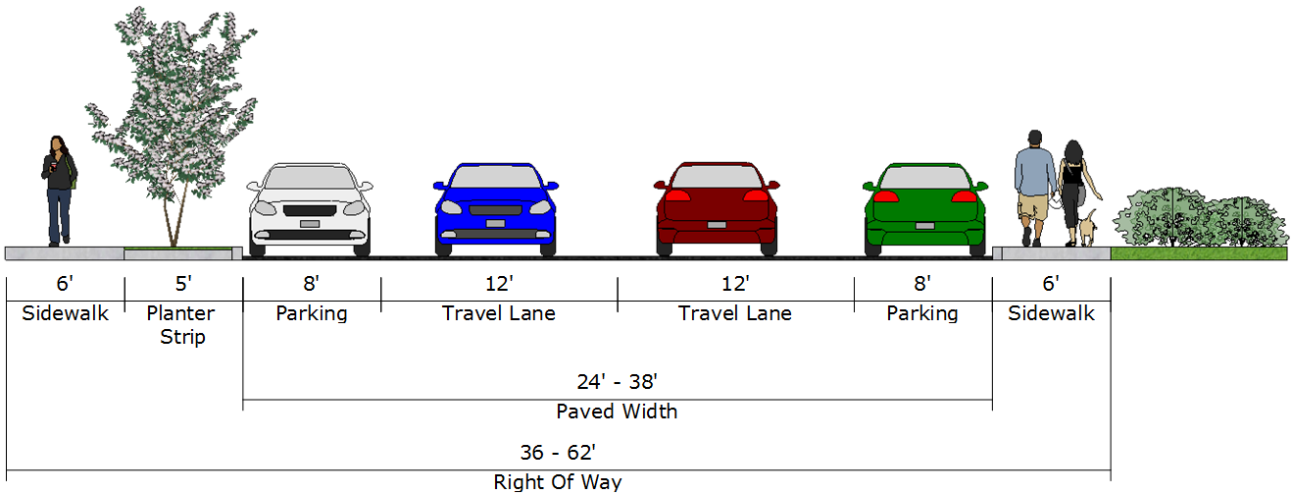
Figure 6: Major Collector Cross-Section Standard



*Optional

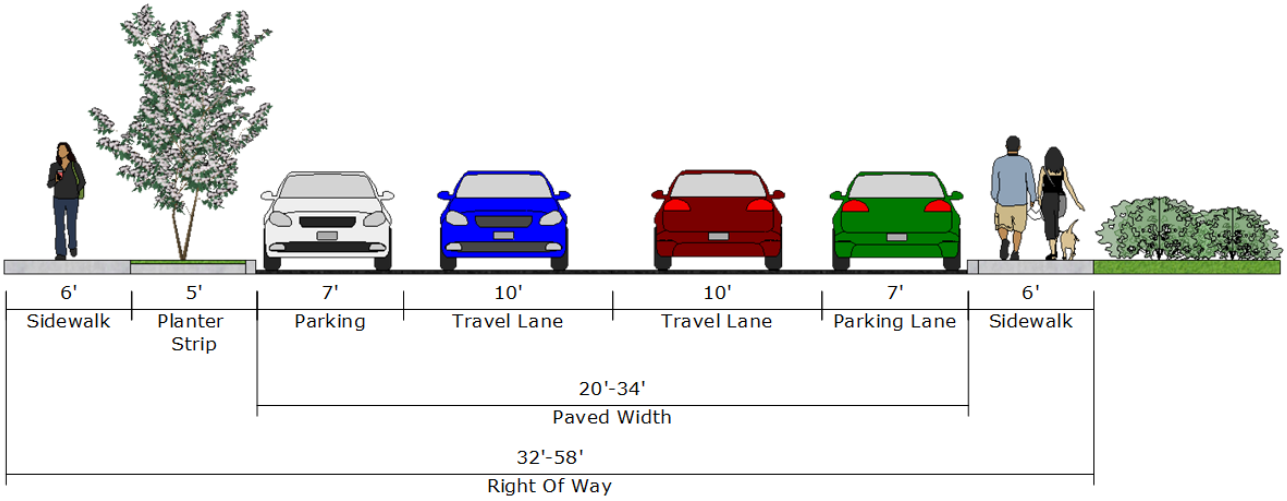
- The preferred width of travel lanes on major collectors is 11-12 feet. In industrial areas or areas where the truck percentage of average daily traffic is 10% or more within a 12-hour period, travel lane widths should be increased to 12 feet.
- Recommended center turn lane or left turn pockets at intersections depending on surrounding land use and available right-of-way.
- The preferred width of center turn lanes on major collectors is 12 feet. In industrial areas or areas where the truck percentage of average daily traffic is 10% or more within a 12-hour period, center turn lane widths should be increased to 14 feet.
- Recommended sidewalk widths are 6 feet.
- Preferred setback sidewalk option, curbside sidewalks may be allowed in constrained areas.
- Recommended planter strip widths are 5 feet.
- Minimum bike lane widths of 5 feet may be allowed in constrained areas.
- Striping is necessary on all roads.
- Parking is optional if ROW is available and warranted by surrounding land uses.

Figure 7: Neighborhood Collector Cross-Section Standard



- The preferred width of travel lanes on neighborhood collectors is 11-12 feet.
- Recommended sidewalk widths are 6 feet.
- Preferred setback sidewalk option, curbside sidewalks may be allowed in constrained areas.
- Recommended planter strip widths are 5 feet.
- On street parking (8-foot width) included on both sides of the street.
- Parking may be allowed on one side only in constrained areas.
- Striping not necessary unless or needed to direct traffic.

Figure 8: Local Street Cross-Section Standard



- Recommended sidewalk widths are 6 feet.
- Preferred setback sidewalk option, curbside sidewalks may be allowed in constrained areas.
- Recommended planter strip widths are 5 feet.
- On-street parking (7 foot width) included on one or both sides of the street.
- Parking may be allowed on one side only in constrained areas.
- Striping is not necessary unless needed to direct traffic.

Planning level right-of-way needs can be determined utilizing these figures. Specific dimensions for roadways with various lane and parking characteristics are detailed in Table 6 for each street classification. These roadway standards are compliant with the Oregon Transportation Planning Rule, which specifies that local governments limit excessive roadway widths.

Under some conditions a variance to the adopted roadway cross-sections may be requested from the Planning Commission.

Typical conditions that may warrant consideration of a variation include (but are not limited to) the following:

- Infill sites
- Innovative designs (roundabouts)
- Severe constraints presented by topography, environmental, or other resources present
- Existing developments and/or buildings that make it extremely difficult or impossible to meet the design standards

Table 6: Typical Roadway Cross-Sections

Street Type	Right-of-Way Width	Curb-to-Curb Paved Width	Within Curb-to-Curb Area				Planter Strips[B]	Sidewalks[CD]
			Motor Vehicle Travel Lanes	Median/ Center Turn Lanes	Bike Lanes[A]	On-Street Parking		
Minor Arterials	56’-72’	34’-50’	11’-12’	12’-14’	6’	-	5’	6’
Major Collectors	48’-74’	34’-52’	11’-12’	12’-14’	6’	8’ (optional)	5’	6’
Neighborhood Collector	36’-62’	24’-38’	11’-12’	-	-	8’	5’	6’
Neighborhood Local Streets	32’-58’	20’-34’	10’-12’	-	-	8’	5’	6’

A – Minimum bike lane widths of 5’ may be allowed in constrained areas.
B – Width includes 6” curb if planter strip is between curb and sidewalk.
C – Width includes 6” curb unless planter strip is between curb and sidewalk.
D – Variances may be allowed for gap infill to match existing sidewalk widths.

ACCESS MANAGEMENT

Access management is the control of access points allowed to enter arterial and collector facilities to preserve their functionality and maximize their capacity. Controlling access can reduce congestion and crash rates, providing efficient, safe, and timely travel.

On arterial and collector facilities, excessive driveways erode the capacity of roadways as additional conflict points are introduced at each driveway location. Reducing or consolidating driveways on these main facilities can decrease collisions and preserve capacity on high volume roads thereby maintaining traffic flow and mobility within the city. Balancing access and good mobility can be achieved through various access management strategies, the first of which is establishing access management spacing standards for driveways and intersections.

JUNCTION CITY ACCESS SPACING STANDARDS

Junction City has established access management regulations through the Municipal Code (Chapter 17.85). These regulations include permitting and site plan review processes, design and spacing standards, and requirements for the provision of inter-parcel circulation and joint access.

The City's current requirements for access spacing applied to the recommended functional classification system are shown below in Table 7, with spacing measured from centerline to centerline of the intersection. As part of this TSP update, the minimum access spacing for minor arterials and collectors has been increased to better support the objectives of providing for longer and higher speed trips and to enhanced safety where posted speeds are higher. These changes will require amendments to the Municipal Code. New accesses shall meet or exceed these minimum spacing requirements. However, where no alternatives exist or where strict application of the standards is impractical, the City may allow variances.

Table 7: City of Junction City Access Spacing Standards

Functional Classification	Minimum Access Spacing (ft.)
Minor Arterial	200
Major Collector	100
Neighborhood Collector	25
Local	25

LANE COUNTY AND STATE OF OREGON ACCESS MANAGEMENT STANDARDS

Both Lane County and ODOT maintain access regulations for roadways under their jurisdiction. Lane County's access regulations are documented in Lane Code Chapter 15.130 through 15.140. Access management regulations for state highways are provided through the *1999 Oregon Highway Plan* and OAR 734-051. The City of Junction City and Lane County have adopted an Access Management Plan as part of the OR 99 Junction City Refinement Plan.[2] The Access Management Plan applied to OR 99W, OR 99E, and OR 99 from approximately the northern UGB to OR 36 and superseded other access management standards.

Following the adoption of the Access Management Plan, ODOT's access management regulations changed and some elements of the plan proved to be impractical to implement. In response, the adoption of the Access Management Plan has been repealed, with Policy 6h from this TSP adopted in its place.

[2] *OR 99 Junction City Refinement Plan,* 2008.

TRAFFIC SIGNAL COORDINATION AND OPTIMIZATION

The coordination and optimization of traffic signals along key corridors can substantially reduce congestion and travel time, while increasing travel speeds for those traveling along the mainline corridor. Signals along OR 99 are currently coordinated, and any new or improved signal along OR 99 within Junction City shall be added to the coordinated system.

Traffic signal spacing plays a significant role in the ability to successfully coordinate signal timing to achieve efficient progression of traffic.

While no new traffic signals are currently planned within the city, should a new signal be proposed, the signal spacing and coordination should be evaluated and considered.

For proposed signals on ODOT facilities, approval will need to be acquired from ODOT prior to installation. For proposed signals on Lane County facilities, approval will also need to be acquired from Lane County prior to installation.

NEIGHBORHOOD TRAFFIC MANAGEMENT

Neighborhood Traffic Management (NTM) is used to describe strategies that neighborhoods can deploy to slow down traffic and potentially reduce volumes, creating a more inviting environment for pedestrians and cyclists. NTM strategies typically include traffic calming techniques to improve neighborhood livability on local streets.

Mitigation measures for neighborhood traffic impacts must balance the need to manage vehicle speeds and volumes with the need to maintain mobility, circulation, and function for service providers (e.g., emergency response).

Table 8 lists common NTM applications with a corresponding photo log included in the appendix. Any NTM project should include coordination with emergency response staff to ensure public safety is not compromised. NTM strategies implemented on a state freight route will require consideration and input from ODOT concerning freight mobility.

Table 8: Summary of Neighborhood Traffic Management Strategies

NTM Application	Use by Function Classification			Impact	
	Minor Arterial	Collector	Local	Speed Reduction	Traffic Diversion
Chicanes			✓	✓	✓
Chokers			✓	✓	✓
Curb Extensions	✓	✓	✓	✓	
Diverters (with emergency vehicle pass-through)		✓	✓		✓
Median Islands	✓	✓	✓	✓	
Raised Crosswalks			✓	✓	✓
Speed Cushions (with emergency vehicle pass-through)			✓	✓	✓
Speed Feedback Signs	✓	✓	✓	✓	
Speed Hump			✓	✓	✓
Traffic Circles			✓	✓	✓

Junction City currently does not have a formal neighborhood traffic management program. If such a program were desired to help respond to future issues, suggested elements include:

- Provide a formalized process for citizens who are concerned about the traffic on their neighborhood street. The process could include filing a citizen request with petition signatures and a preliminary evaluation. If the evaluation finds cause for concern, a neighborhood meeting would be held and formal data would be collected and evaluated. If a problem is found to exist, solutions would be identified and the process continued with neighborhood meetings, feedback from service and maintenance providers, cost evaluation, and traffic calming device implementation. Six months after implementation the device would be evaluated for effectiveness.
- For land use proposals, in addition to assessing impacts to the entire transportation network, traffic studies for new developments must also assess impacts to residential streets. A recommended threshold to determine if this additional analysis is needed is if the proposed project increases through traffic on residential streets by 20 or more vehicles during the evening peak hour or 200 vehicles per day. Once the analysis is performed, the threshold used to determine if residential streets are impacted would be if their daily traffic volume exceeds 1,200 vehicles.

POTENTIAL SPEED REDUCTIONS

The Junction City Police Department and community members have expressed safety concerns related to roadway speeds throughout Junction City. It is recommended that speed studies be undertaken as necessary to address the concerns of the community. Corridors of concern include:

- Prairie Road between 1st Avenue and OR 99
- Bailey Lane
- Pitney Lane
- 1st Avenue between Prairie Road and Oaklea Drive
- 18th Avenue between OR 99 and Oaklea Drive
- OR 99E and OR 99W headed southbound approaching Junction City
- OR 99 between 1st Avenue/River Road and OR 36

LOCAL STREET CONNECTIVITY

Local street connectivity is required by the state Transportation Planning Rule (OAR 660-012) and is important for the continued development of Junction City. Improvement to local street connectivity is easier to implement in newly developing areas, however, retrofitting existing areas to provide greater connectivity should also be attempted. Providing good street connectivity has many benefits, such as:

- Reducing citywide vehicle miles traveled (VMT)
- Avoiding the need for road widening by balancing traffic loading on streets
- Making travel by walking or cycling easier and faster
- Reducing emergency vehicle response times

The existing street connectivity in Junction City varies as the network gets further away from the downtown core. The downtown area is well developed with a connected grid system, which is only limited in some locations near the Portland & Western and Union Pacific Railroads on the east side of OR 99. Many of the newer neighborhoods outside of the downtown core have been designed to provide good street connectivity, but some neighborhoods in the area between Maple Street, 1st Avenue, Oaklea Drive, and 18th Avenue have been designed with many dead-end streets.

Figure 4 shows a Local Street Connectivity Plan and specifies the general locations where new local street connections should be made as areas continue to develop. The connection locations are approximate and were located to reduce neighborhood impacts by balancing traffic on neighborhood routes. Locations were also selected considering the Goal 5 resources and efforts were made to avoid impacting environmental features, topography, and the existing built environment.

As future development occurs, such as in the undeveloped residential land in the northwest corner of Junction City, and in the undeveloped industrial land to the south along the east side of OR 99, the local street network must be designed to maintain good connectivity where

feasible. In planning for future development, the following objectives shall be applied.

- In residential zones, a block pattern that supports good pedestrian connectivity shall be maintained; the maximum block length and perimeter shall not exceed 600 feet and 1,600 feet, respectively.
- In industrial zones, large blocks may be necessary to support industrial development; no maximum block length or perimeter will be established, except where new collector or arterial roadways are planned.
- In all other zones, the maximum block length and perimeter shall not exceed 800 feet length and 2,600 feet perimeter, respectively.
- Pathways (for pedestrians and bicycles) shall be provided at or near mid-block where the block length exceeds 600 feet in length. Pathways shall also be provided where cul-de-sacs or dead-end streets are planned, to connect the ends of the streets together, to other streets, and/or to other developments, as applicable. Dead-end streets or cul-de-sacs shall be no more than 200 feet long and shall only be used when environmental or topographical constraints, existing development patterns, or compliance with other standards in the City's code preclude street extension and through circulation.

To protect existing neighborhoods from the potential traffic impacts caused by extending stub end streets, the design and construction of connector roadways shall evaluate if neighborhood traffic management strategies are necessary. In addition, when a development constructs stub streets, the city shall require the installation of signs indicating the potential for future connectivity to increase awareness of residents.

MOTOR VEHICLE SYSTEM IMPROVEMENTS

The following section presents transportation improvement projects to address motor vehicle travel needs. Four categories of motor vehicle projects were identified for Junction City:

- **New Roadways or Roadway Extensions**: Key new roadway connections are identified that provide improved connectivity and access, especially for developing areas.
- **Roadway Modernizations**: This includes upgrading roadways to current standards that may include wider lanes, shoulders, curbs, sidewalks, bicycle facilities, or turn lanes. The functional right-of-way is typically widened to accommodate enhancements, but actual right-of-way changes and potential property acquisitions vary by location.
- **Safety Improvements**: Improvements are suggested for locations where safety concerns have been identified.
- **Traffic Operations Improvements**: Improvement projects have been identified for locations where motor

vehicle delays are expected to be most significant by the year 2036.

Recommended projects are described in Table 9, which includes Project ID numbers to help locate improvements on Figure 9. The project descriptions include key benefits for use in future grant applications and strategic planning.

Table 9: Motor Vehicle Improvements

Project ID	Project Description	Probable Construction Costs##
New Roadways/Roadway Extensions		
MV1	**W 6th Avenue**: Oaklea Drive to west: Extend W 6th Avenue as a new Major Collector Street from Oaklea Drive to new north-south Collector Street (see MV4) ***Key Benefits: Connectivity***	$4,190,000
MV2	**W 10th Avenue**: Oaklea Drive to west: Extend W 10th Avenue as a new Major Collector Street from Oaklea Drive to west UGB ***Key Benefits: Connectivity***	$10,100,000
MV3	**New Collector Street**: North UGB to W 10th Avenue: Construct new Major Collector Street extending from the North UGB to the W 10th Avenue extension (see MV2) ***Key Benefits: Connectivity***	$5,560,000
MV4	**New Collector Street**: North UGB to High Pass Road: Construct new Neighborhood Collector Street west of Oaklea Drive extending from the North UGB to High Pass Road ***Key Benefits: Connectivity***	$11,730,000
MV5	**New Collector Street**: West UGB to MV4: Construct new Neighborhood Collector Street from west UGB to other New Collector Street (see MV4) ***Key Benefits: Connectivity***	$6,380,000
MV6	**New Frontage Road east of PNWR railroad**: E 1st Avenue to Prairie Road: Construct new Neighborhood Collector Street between Portland & Western and Union Pacific railroads. Project should include railroad crossing closures where feasible ***Key Benefits: Connectivity, Mobility, Safety***	$16,535,000
MV7	**Prairie Meadows Avenue**: Extend west to Pitney Lane: Construct to match existing segment of Prairie Meadows Avenue (would not meet new Neighborhood Collector Street standard, but provides consistency with established construction) ***Key Benefits: Connectivity***	$1,200,000
MV8	**Coral Street**: Extend west to Pitney Lane: Construct to match existing segment of Coral Street (at a minimum build to Neighborhood Collector Street standard) ***Key Benefits: Connectivity***	$1,950,000

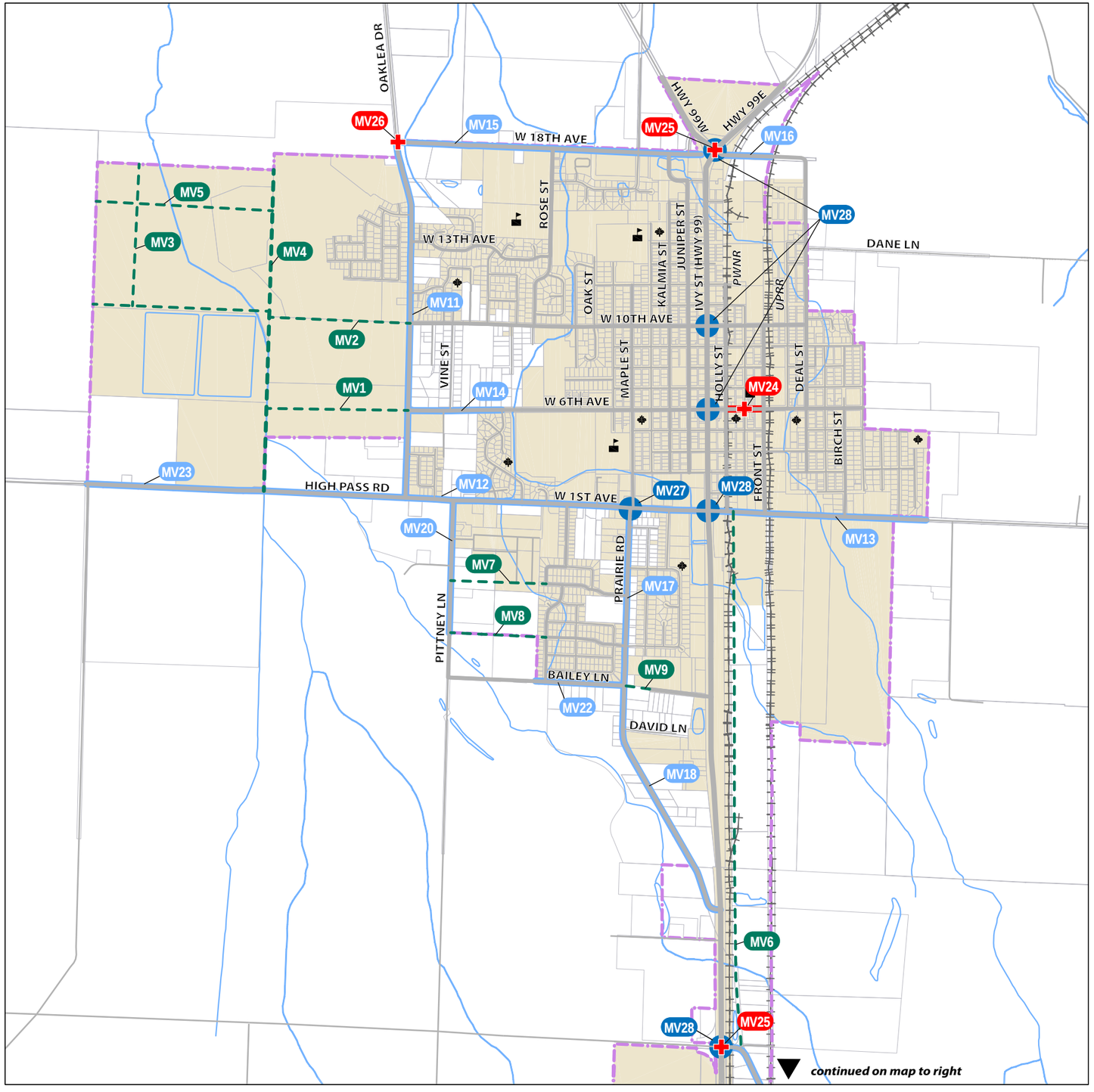
Project ID	Project Description	Probable Construction Costs[##]
MV9	**Hatton Lane**: Extend west to Prairie Road: Phase 1: Acquire right-of-way for Hatton Lane extension to Prairie Road, and construct a pedestrian and bicycle connection (see SLM6). Phase 2: Extend Hatton Lane as a new Collector Street connecting Prairie Road to OR 99. ***Key Benefits: Connectivity***	Phase 1: $210,000 Phase 2: $655,000
Roadway Modernizations		
MV10	**Meadowview Road**: OR 99 to East UGB: Construct to Major Collector standards including bike lanes on both sides and sidewalk only on the north side. ***Key Benefits: Pedestrian/Bicycle Connectivity, Livability***	$2,480,000
MV11	**Oaklea Drive[#]**: W 18th Avenue to W 1st Avenue/High Pass Road: Construct to Major Collector standards including left turn pockets, bike lanes, and sidewalks. ***Key Benefits: Pedestrian/Bicycle Connectivity, Livability, Auto Mobility***	$7,190,000
MV12	**W 1st Avenue/High Pass Road*[#]**: Oaklea Drive to OR 99: Construct to Major Collector standards including left turn lane, bike lanes, and sidewalks. ***Key Benefits: Pedestrian/Bicycle Connectivity, Safe Routes to School, Safety, Livability, Auto Mobility***	$6,070,000
MV13	**E 1st Avenue/River Road[#]**: OR 99 to East UGB: Construct to Major Collector standards including center turn lane, bike lanes, and sidewalks. ***Key Benefits: Pedestrian/Bicycle Connectivity, Livability, Auto Mobility***	$4,270,000
MV14	**W 6th Avenue[#]**: Oaklea Drive to Timothy Street: Construct to Major Collector standards including bike lanes and sidewalks. ***Key Benefits: Pedestrian/Bicycle Connectivity, Safe Routes to School, Livability***	$1,735,000
MV15	**W 18th Avenue[#]**: Oaklea Drive to Juniper Street: Construct to Major Collector standards including bike lanes on both sides and sidewalk only on the south side (no center turn lane). ***Key Benefits: Pedestrian/Bicycle Connectivity, Livability, Auto Mobility***	$2,585,000
MV16	**E 18th Avenue[#]**: OR 99 to East UGB: Construct to Major Collector standards including bike lanes and sidewalks. ***Key Benefits: Pedestrian/Bicycle Connectivity, Livability***	$1,625,000
MV17	**Prairie Road[#]**: W 1st Avenue to Bailey Lane: Construct to Major Collector standards including bike lanes and sidewalks. ***Key Benefits: Pedestrian/Bicycle Connectivity, Safe Routes to School, Livability***	$3,730,000
MV18	**Prairie Road[#]**: Bailey Lane to OR 99: Construct to Major Collector standards including bike lanes and sidewalks. Do not construct sidewalks where adjacent to UGB. ***Key Benefits: Pedestrian/Bicycle Connectivity, Livability***	$4,415,000
MV19	**Prairie Road[#]**: OR 99 to East UGB: Construct to Major Collector standards including bike lanes and sidewalks. ***Key Benefits: Pedestrian/Bicycle Connectivity, Livability***	$1,730,000

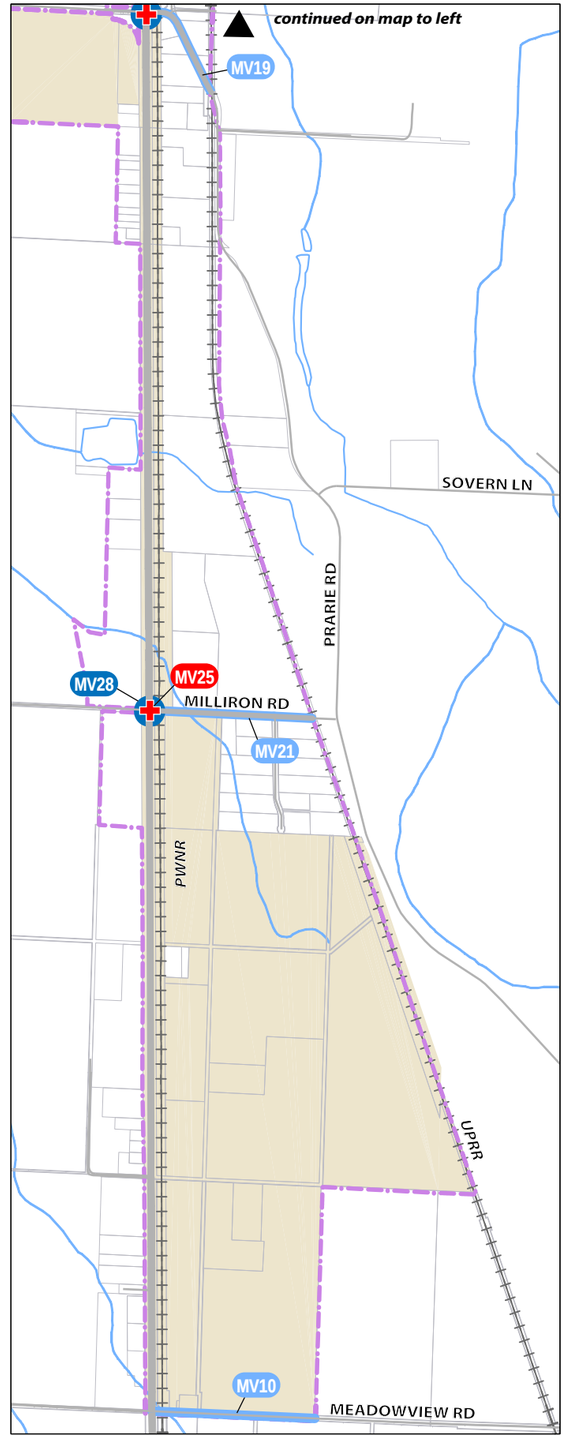
Project ID	Project Description	Probable Construction Costs[##]
MV20	**Pitney Lane[#]**: W 1st Avenue/High Pass Road to Bailey Lane: Construct to Major Collector standards including bike lanes on both sides and sidewalk only on the east side (no center turn lane). ***Key Benefits: Pedestrian/Bicycle Connectivity, Livability***	$2,665,000
MV21	**Milliron Road[#]**: West UGB to East UGB: Construct to Major Collector standards including bike lanes and sidewalks. ***Key Benefits: Pedestrian/Bicycle Connectivity, Livability***	$2,105,000
MV22	**Bailey Lane**: West UGB to Prairie Road: Construct Major Collector standards including left turn lanes, bike lanes on both sides, and sidewalk. ***Key Benefits: Pedestrian/Bicycle Connectivity, Livability, Auto Mobility***	$1,250,000
MV23	**W 1st Avenue/High Pass Road[#]**: West UGB to Oaklea Drive: Construct Major Collector standards including left turn lanes, bike lanes on both sides, and sidewalk only on the north side. This includes a segment that is entirely outside of the UGB, but is needed for connectivity. ***Key Benefits: Pedestrian/Bicycle Connectivity, Livability, Auto Mobility***	$3,830,000
Safety Improvements		
MV24	**Restripe E 6th Avenue**: OR 99 to Front Street: Convert from front-facing angle parking to parallel parking to provide consistent center-line. ***Key Benefits: Safety, Safe Routes to School***	$10,500
MV25	**OR 99 Traffic Signal Upgrades: OR 99E/OR 99W, OR 99/OR 36, and OR 99/Milliron Road**: Upgrade signal head backplates with retroreflective borders. The remaining signal head upgrades are captured under the crossing improvement projects for the signals at OR 99/10th, OR 99/6th, and OR 99/1st. ***Key Benefits: Safety***	$10,000
MV26	**Oaklea Drive/ W 18th Avenue**: Improve sight distance for northbound approach to the intersection. ***Key Benefits: Safety***	$55,000
Traffic Operations Improvements		
MV27	**Maple Road/Prairie Road intersection with W 1st Avenue/High Pass Road:** Realign north and south approaches of intersection and add left turn lanes on all approaches. ***Key Benefits: Safety, Safe Routes to School, Auto Mobility***	$1,175,000
MV28	**OR 99 Traffic Signal Optimization**: OR 99E/OR 99W junction to Milliron Rd: Periodically review traffic signal timings along OR 99 to optimize operations as needed to respond to changes in traffic volumes. ***Key Benefits: Auto Mobility***	$30,000
	Total Cost	**$105,761,500**

*Impacts to historical cemetery must be considered in any widening plans along High Pass Road. [#]Identified in Lane County TSP.

[##]Probable construction costs should be used for planning purposes only. Each project cost estimate should be revisited when determining specific project funding needs.

EXHIBIT A to Ordinance No. PA 1344





Junction City
Transportation System Plan

FIGURE 9

Proposed Motor Vehicle Network Improvements

Legend

Network Improvments

- XX — MOTOR VEHICLE PROJECT NUMBER
- ROADWAY MODERNIZATION
- NEW ROADWAYS/ ROADWAY ENTENSIONS
- SAFETY IMPROVMENTS
- TRAFFIC OPERATIONS IMPROVMENTS

Roadways

- *ARTERIAL*
- *MAJOR COLLECTOR*
- *MINOR COLLECTOR*
- *LOCAL*
- *CITY LIMITS*
- *URBAN GROWTH BOUNDARY*
- *TAX LOTS*
- *RAILROAD*
- *STREAM*

Places of Interest

- *CITY HALL*
- *PARK*
- *PUBLIC SCHOOL*

N W E S

0 1000 2000 Feet

IMPROVEMENTS TO THE OR 99 CORRIDOR FOR FUTURE CONSIDERATION

The OR 99 Junction City Refinement Plan, which was adopted by the City in 2008, identified a need for significant improvements through the OR 99 corridor to relieve congestion. These improvements were reconsidered during the development of solutions for this TSP update. The recent economic downturn had resulted in a substantial decrease in traffic volumes along the highway and the need for the improvements identified in the OR 99 Junction City Refinement Plan could no longer be demonstrated through the 20-year planning horizon.

As the economy recovers, and traffic volumes continue to grow, it is likely that at some time beyond the planning horizon of this TSP (2036), the need for those OR 99 improvements will return. They are not included in the Motor Vehicle System Plan improvements for this TSP, but are included in the appendix for future reference.

TRANSPORTATION DEMAND MANAGEMENT

Transportation Demand Management (TDM) describes actions intended to remove single occupancy vehicle trips from the roadway network during peak travel demand periods. The goal of TDM is to reduce vehicle miles traveled (VMT) and promote alternative modes of travel. Shifting peak travel demands on roadways means that the existing roadway capacity can be used more efficiently, which could mean that Junction City may avoid or delay building new or wider roads. A wide variety of TDM strategies exist, and it's important to tailor those strategies to meet the needs of a smaller urban community.

TDM strategies may be considered as an alternative to constructing capacity improvements to mitigate impacts from proposed development where the improvements would be cost prohibitive or result in undesirable impacts to adjacent land.

Table 10 is a list of potential TDM strategies the City will consider implementing as needed, including descriptions of their potential for trip reduction during peak travel periods.

Table 10: Potential Transportation Demand Management Strategies

Strategy	Description	Potential Trip Reduction
Telecommuting	Employees perform regular work duties at home rather than commuting from home to work. This may be full time or on selected work days. This can require computer equipment to be most effective.	82-91% (Full Time) 14-36% (1-2 Days/Week)
Compressed Work Week	Schedule where employees work their regular scheduled number of hours in fewer days per week.	7-9% (9 day/80 hr) 16-18% (4 day/40 hr) 32-36% (3 day/36 hr)
Transit Pass Subsidy	For employees who take transit to work on a regular basis, the employer pays for all or part of the cost on a monthly transit pass.	19-32% (Full subsidy of cost, high transit service) 4-6% (Full subsidy of cost, medium transit service) 0.5-1% (Full subsidy of cost, low transit service) 10-16% (Half subsidy of cost, high transit service) 2-3% (Half subsidy of cost, medium transit service) 0-0.5% (Half subsidy of cost, low transit service)
Reduced Cost or Preferential Parking for HOVs	Parking costs charged to employees are reduced for carpools and or vanpools. Employer provides reserved prime location parking spots for HOV commuters.	1-3%
Alternate Mode Subsidy	For those employees that commute to work by a mode other than driving alone, the employer provides a monetary bonus to the employee.	21-34% (Full subsidy, high transit service) 5-7% (Full subsidy, medium transit service) 1-2% (Full subsidy, low transit service) 10-17% (Half subsidy, high transit service) 2-4% (Half subsidy, medium transit service) 0.5-1% (Half subsidy, low transit service)
On-Site Services	Provide services at the work site that are frequently used by the employees of that work site. Examples include cafes/restaurants, dry cleaners, day care centers, and bank machines.	1-2%
Bicycling Program	Provides support services to those employees that bicycle to work. Examples include: safe/secure bicycle storage, shower facilities, and subsidy of commute bicycle purchase.	0-10%
On-Site or Public Rideshare Matching for Carpools and Vanpools	On-Site: Employees who are interested in carpooling or vanpooling provide information to a transportation coordinator on staff regarding their work hours, availability of a vehicle and place of residence. The coordinator then matches employees who can reasonably rideshare together. Public: Public entity (city, transit agency, region, state) provides an interactive website for carpool matching.	1-2% (Without support strategies) 6-8% (With support strategies)
Provide Vanpools	Employees that live near each other are organized by their employer into a vanpool for their trip to work. The employer may subsidize the cost of operation and maintain the van.	15-25% (Company-provided vans with a fee) 30-40% (Company-subsidized vans)
Gifts/Awards for Alternative Mode Use	Employees are offered the opportunity to receive a gift or an award for using modes other than driving alone.	0-3%
Employer Bus	Employer provides a bus service specifically to transport employees to work.	3-11%

Strategy	Description	Potential Trip Reduction
Walking Program	Provide support services for those who walk to work. This could include buying walking shoes or providing lockers and showers.	0-3%
Time Off with Pay for Alternative Mode Use	Employees are offered time off with pay as an incentive to use alternative modes.	1-2%
Company Cars for Business Travel	Employees are allowed to use company cars for business-related travel during the day.	0-1%
Guaranteed Ride Home Program	A company owned or lease vehicle or taxi fare is provided in the case of an emergency for employees that use alternative modes.	1-3%
Source: Employee Commute Options (ECO) Sample Trip Reduction Plan, Oregon Department of Environmental Quality, 2006.		

In addition to providing transit service to Junction City, Lane Transit District provides both carpooling and vanpooling as alternative transportation options as part of their Point2Point initiative.[3] Carpooling can also be realized through a program called Drive less. Connect.[4], which helps to match those people interested in carpooling. Valley VanPool is a service provided by the combined efforts of Cascades West Rideshare, Chariots Rideshare, and Lane Transit District's Commuter Solutions Program. Currently Valley VanPool has 41 routes traversing all across the Willamette Valley.[5]

For larger employers, scheduling shift changes to minimizing traffic impacts during peak travel periods can also be a very effective TDM strategy. An example would be maintaining regular working hours from 7 a.m. to 4 p.m. when the peak travel period of the city is closer to 5 p.m.

Junction City will encourage employers with more than 50 employees to designate an Employee Transportation Coordinator (ETC).

This coordinator would be a liaison between the City and the employer, and would encourage alternative transportation options (transit, walking, cycling) to new employees.

[3] Point2Point June 19, 2013. Web address: http://www.point2pointsolutions.org/

[4] Drive less. Connect. October 18, 2012. Web address: http://drivelessconnect.com/.

[5] Valley VanPool. October 18, 2012. Web address: http://www.valleyvanpool.info/vanpool.htm.

CHAPTER 7: OTHER MODAL PLANS

The existing condition of accommodations for transit, rail, air, pipeline, and waterway transportation in Junction City was described in a technical memorandum that has been included in the appendix. The City does not own or operate facilities or programs related to these modes of travel, but can support them through adoption of policies and construction of complimentary improvements. This chapter summarizes services available for transit, rail, air, pipeline, and waterway transportation and offers recommendations for improvements for some modes.

TRANSIT PLAN

Increasing the availability and use of transit service in Junction City is one way to remove single occupancy vehicles from the roadway. It also provides mobility to those without access to private vehicles.

Lane Transit District (LTD) provides fixed-route public transit service to Junction City from the Eugene area. Junction City is served by Route 95, which is a rural route, and has approximately 10 stop locations within the Junction City UGB. The route picks up Monday through Friday with three times in the morning, and midday and twice in the evening. The route picks up twice in the morning and once midday on Saturday. The route picks up once in the morning and evening on Sundays.

LTD also provides a paratransit service, which is operated through a program called RideSource. The service boundary for RideSource is the Eugene-Springfield Metropolitan Planning Organization (MPO). Junction City would need to join the MPO to receive complementary paratransit service from RideSource. However, paratransit service is available for residents in Junction City receiving Medicaid. The Federal Transit Authority does provide grants to support public transportation in rural areas with populations of less than 50,000. The grants are awarded annually and provide funding for both operation and capital improvements.

To support increased availability and use of transit in the future, the City will take the following actions:

- As new areas develop within the city, particularly to the west, the City will actively engage LTD to discuss the ability to meet new service demands. These needs could include increased frequency of service, changes in the route alignment to increase accessibility for users, or potentially identifying a new park & ride location.
- The City will apply for grants to provide broader access to paratransit service.

- The City will prioritize improvements to the pedestrian and bicycle systems that would enhance the accessibility of existing transit stops (e.g., C6, SW2, SW3).

RAIL PLAN

Junction City has two freight rail service tracks running north-south, east of OR 99. Both the Union Pacific Railroad (UPRR) and the Portland & Western Railroad (PNWR) operate within the city with a total of 23 crossings (UPRR has 7 crossings and PNWR has 16 crossings). The UPRR line is the main freight line and trains typically travel at speeds up to 79 mph through town roughly 15 times per day. The PNWR is a smaller line and train speeds vary from 10 mph to 40 mph through town with one to two trains per day.

Railroad crossing controls vary between the UPRR and PNWR lines. The UPRR line, which runs parallel to the east side of Front Street and operates at much higher speeds and frequency, uses both gates and some type of flashing lights at all of its seven crossing in town. Plans are currently being formed to put fencing along the tracks through Junction City to channelize pedestrians to safe crossing locations.

The PNWR runs just east of OR 99 and down the middle of Holly Street. Traffic controls used include cross bucks, stop signs, or other signs or signals. The highly used intersection of 6th Avenue at Holly Street has crossing gates. Ultimately, the City would like to see the tracks along Holly Street removed, with service relocated to another corridor. This could include consolidation of services along the existing UPRR railroad.

Junction City has identified improvements that they would like to see occur with both the UPRR and PNWR rail lines, which are listed below. These improvements will require coordination with both rail lines.

- Along UPRR alignment, install fencing to limit pedestrian crossings and channel pedestrians to safe crossing locations.
- Improve pavement conditions along rail crossing locations. Rail crossings often create hazardous barriers for pedestrians and cyclists due to pavement disrepair and gaps between rails and pavement where bicycle, wheelchair, and walker wheels can become stuck.
- Ultimately Junction City would like the PNWR line that has tracks down Holly Street removed and relocated to another corridor.

AIR PLAN

The City of Junction City does not have its own airport or other air service facilities within the UGB. The closest major airport to Junction City is the Eugene Airport, which is located approximately five miles south of the city and provides service for both passengers and freight. The Eugene airport is the second largest airport in the state of Oregon and is the largest non-hub airport in the nation. The airport provides regular direct service to Portland, Seattle, San Jose San Francisco, Oakland, Los Angeles, Denver, Salt Lake City, Las Vegas, and Phoenix-Mesa.

PIPELINE PLAN

Northwest Pipeline Company operates a major regional natural gas transmission line between Portland and Eugene, which passes through Junction City along railroad right-of-way. Northwest Natural Gas distributes the gas in the Junction City area. This six-inch high-pressure main interconnects storage facilities in the state, as well as interstate sources.

Kinder Morgan operates an eight-inch major petroleum transmission pipeline, which also runs along the railroad right-of-way. It extends from Portland to Eugene and has been in operation since 1962. This pipeline is a common carrier, designed to handle alternately gasoline, biodiesel, or diesel fuel. It currently transmits approximately 45,000 barrels of fuel per day to Eugene (roughly equivalent to 210 tanker trucks of fuel). From Eugene, it is distributed by truck to end destinations or for storage in tank facilities nine miles south of Junction City.

No actions are proposed in this TSP directly involving pipeline facility use. However, the City must coordinate with pipeline operators prior to making improvements that cross railroad right-of-way (e.g., C3, MV6, MV10, MV13, MV16, MV19, MV21).

WATERWAYS PLAN

No navigable waterways exist within the Junction City urban growth boundary. The Willamette River runs north-south approximately three miles east of the study area.

CHAPTER 8: FUNDING AND IMPLEMENTATION

This chapter discusses the financial and regulatory needs associated with implementation of this Transportation System Plan.

PROJECTED FUNDING FOR TRANSPORTATION IMPROVEMENTS

Projecting the revenue assumed to be available for capital projects helps to provide an understanding of the City's capacity for constructing the transportation improvements identified to be needed to support future growth. Future projections for Junction City's transportation funding through the year 2036 are described in a memorandum included in the appendix. These projections include estimated resources available based on the amount of revenue collected in the past from current funding sources and assumptions for growth in land development through the planning horizon. Expenditures have also been estimated based on historical data describing costs associated with maintaining the existing transportation system.

Table 11 summarizes future transportation funding projections for Junction City through the year 2036. As shown, Junction City may have approximately $3 million available for capital improvements through 2036, but at the same time may be more than $600,000 short of being able to cover expenses for basic maintenance and operations during the same period (equating to about $25,000 per year). The reason for this discrepancy is because revenue generated by System Development Charges can only be spent on capacity building projects, not on maintenance and operations.[6]

This suggests that the City's current revenue streams are inadequate to support basic costs for keeping the transportation system functioning. Deferred maintenance of the transportation system can exponentially increase the costs of repairs in the future. Therefore, rather than relying on grants or the City's general fund to make up the difference, new local revenue streams should be considered.

[6] Junction City Municipal Code 13.40.060 and 13.40.070, as well as ORS 223.307

Table 11: Estimate of Funding Availability Through 2036

Transportation Revenue	Annual Average	Total through 2036
OR Gas Tax - Bike Component [A]	$2,300	$57,500
OR Gas Tax - Streets Component [B]	$220,700	$5,517,500
Sidewalk Permits [C]	$2,560	$64,000
System Development Charges [D]	$120,800	$3,020,000
Fund Balance (Current Existing)	NA	$1,178,000
		$9,837,000
Expenditures for Basic Maintenance and Operations	**Annual Average**	**Total through 2036**
Personnel (Wages, Benefits, Etc.)	$164,700	$4,117,500
Equipment, Materials, & Services	$125,200	$3,130,000
Street Maintenance & Repairs	$8,200	$205,000
		$7,452,500
Available Balance for Basic Maintenance and Operations [D]		
Available Balance for Capital Improvement Projects		**$**

[A] Can only be applied toward construction or maintenance of pedestrian and bicycle facilities (ORS 366.514).
[B] Can be applied toward construction, maintenance, or operations of the transportation system.
[C] Likely spent entirely on administrative costs of sidewalk construction inspection.
[D] System Development Charges cannot be applied toward maintenance and operations and are for capacity building projects only.

FINANCIALLY CONSTRAINED PLAN

The Preferred Plan consists of all transportation improvements identified to meet future needs through the year 2036. The Financially Constrained Plan is a subset of this plan that aligns with anticipated funding. The Financially Constrained Plan is commonly used to populate the City's Capital Improvement Program (CIP). However, any project from the Preferred Plan is eligible for inclusion on the CIP.

Projects for the Financially Constrained Plan were selected based on priorities expressed by the Citizen Advisory Committee and input obtained through a public open house. As a result, the Financially Constrained Plan puts a strong emphasis on walking and biking facilities that support safe routes to schools and improvements in the safety and efficiency of travel along OR 99. Table 12 summarizes the total costs to fund the Preferred and Financially Constrained Plans. The Financially Constrained Plan consists of less than 5% of the total Preferred Plan, with most of the difference being in Motor Vehicle mode projects. The allocation of funding for the Financially Constrained Plan has been well balanced between modes of travel, as shown at right.

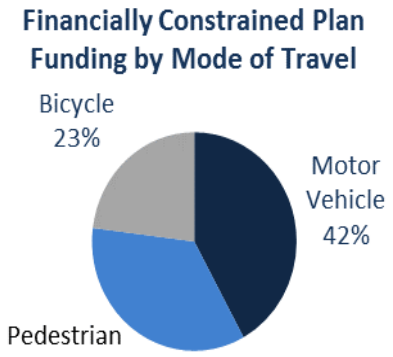


Table 12: Preferred and Financially Constrained Plan Costs (2016 – 2036)

Transportation Mode	Planning-Level Costs (2016 Dollars)	
	Preferred Plan	Financially Constrained Plan
Pedestrian	$4,945,000	$930,000
Shared Pedestrian/Bicycle		
Crossings	$385,000	$60,000
Shared-Use Paths	$3,680,500	$195,000
Bicycle	$690,000	$570,000
Motor Vehicle	$104,245,500	$1,241,750
Total Cost	**$113,946,000**	**$2,996,750**
Difference between Preferred and Financially Constrained Plans		**$100,949,250,**

Individual projects included in the Financially Constrained Plan for all transportation modes are identified in Tables 13 through 17. Estimated costs for each project are provided, including a portion of the project costs assumed to be the responsibility of the City, which is included in the Financially Constrained Plan budget. Because many roadways in Junction City are under the jurisdiction of Lane County or ODOT, there may be opportunities to have those agencies contribute funds for some projects. It has also been assumed that a portion of some projects may be constructed as frontage improvements by future development where adjacent land is currently undeveloped. These assumptions are noted in Tables 13 through 17, and are strictly an aid for establishing a long-range transportation budget for Junction City. They do not create an obligation for any parties listed to contribute funds.

Table 13: Financially Constrained Plan Sidewalk Infill/Construction Projects

Project ID	Project Description	Probable Construction Costs*	Financially Constrained Plan Budget
SW2	**W 10th Ave**: Oaklea Dr to Maple St - Sidewalk construction/infill	$610,000	$610,000
	Key Benefits: Pedestrian Connectivity, Safe Routes to School		
SW3	**W 6th Ave**: Timothy St to Pine Ct - Sidewalk construction/infill	$320,000	$320,000
	Key Benefits: Pedestrian Connectivity, Safe Routes to School		
Financially Constrained Plan			**$930,000**

***** Probable construction costs should be used for planning purposes only. Each project cost estimate should be revisited when determining specific project funding needs.

Table 14: Financially Constrained Plan Intersection Crossing Improvements

Project ID	Project Description	Probable Construction Costs*	Financially Constrained Plan Budget (Potential Funding Partners)**
C3	**E 10th Ave/Front St**: Connect existing sidewalk on north side of E 10th Ave to provide an accessible railroad crossing. Replace curb ramps on all corners to meet ADA standards. ***Key Benefits: Safety, ADA Accessibility, Safe Routes to School, Pedestrian/Bicycle Connectivity***	$30,000	$30,000
C6	**W 1st Ave/Prairie Rd/Maple St**: As an interim improvement, construct curb extensions on the opposing west corner of Maple Street and east corner of Prairie Road to enhance pedestrian visibility and shorten the crossing distance. ***Key Benefits: Safety, Safe Routes to School, Pedestrian/Bicycle Connectivity***	$30,000	$30,000
C7	**W 10th Ave/OR 99**: Enhance pedestrian crossing by upgrading pedestrian signal heads to countdown pedestrian signals. Upgrade pedestrian signals by using audible signals. Upgrade signal head backplates with retroreflective borders. ***Key Benefits: Safety, ADA Accessibility, Safe Routes to School***	$20,000	No City funds designated from Financially Constrained budget. Assumed funded by grants or other funding partners. (Potential funding partners: ODOT)
C8	**W 6th Ave/ OR 99**: Install intersection lighting (currently no lighting on mast arms). Enhance pedestrian crossing by upgrading pedestrian signal heads to countdown pedestrian signals. Upgrade pedestrian signals by using audible signals. Upgrade signal head backplates with retroreflective borders. ***Key Benefits: Safety, ADA Accessibility, Safe Routes to School***	$35,000	No City funds designated from Financially Constrained budget. Assumed funded by grants or other funding partners. (Potential funding partners: ODOT)
C9	**W 1st Ave /OR 99**: Enhance pedestrian crossing by upgrading pedestrian signal heads to countdown pedestrian signals. Upgrade pedestrian signals by using audible signals. Upgrade signal head backplates with retroreflective borders. ***Key Benefits: Safety, ADA Accessibility, Safe Routes to School***	$20,000	No City funds designated from Financially Constrained budget. Assumed funded by grants or other funding partners. (Potential funding partners: ODOT)
C11	**OR 99 from 18th Ave to 1st Ave**: Install pedestrian activated crossing treatments on OR 99. Consider including Rectangular Rapid Flashing Beacons (RRFBs), advanced stop bars, curb ramps, and striped crosswalks at mid-block locations between: • 15th Ave and 12th Ave, • 9th Ave and 7th Ave, and • 5th Ave and 3rd Ave.	$140,000	No City funds designated from Financially Constrained budget. Assumed funded by grants or other funding partners. (Potential funding partners: ODOT)

Project ID	Project Description	Probable Construction Costs*	Financially Constrained Plan Budget (Potential Funding Partners)**
C12	**Education**: Many free educational materials are available. Coordinate with the Oregon Department of Transportation, Junction City School District, and Junction City Police Department to implement safety education programs including pedestrian crossing education for school children.	Variable	City staff time, but negligible expenses (Potential funding partners: ODOT)
	Key Benefits: Safety, Safe Routes to School		
Financially Constrained Plan			**$60,000**

** Probable construction costs should be used for planning purposes only. Each project cost estimate should be revisited when determining specific project funding needs.*
*** Identification of potential funding contributors is for budgeting purposes only and does not create an obligation for funding from parties listed.*
**** The installation of RRFBs requires an investigation and approval from the State Traffic-Roadway Engineer. Any mid-block improvements on a State Freight Route will require review concerning freight mobility. The National Cooperative Highway Research Program (NCHRP) Report 572 outlines a process to identify the appropriate type of crossing treatment at unsignalized locations. It was envisioned that RRFBs would be installed, but a pedestrian activated beacon or signal could also be the appropriate treatment.*

Table 15: Financially Constrained Plan Shared-Use Path Alignments

Project ID	Project Description	Probable Construction Costs*	Financially Constrained Plan Budget (Potential Funding Partners)**
SUP1	**Southern Edge of Junction City High School, Connecting Existing Shared-Use Path to Maple Street**: Alignment may require right-of-way or easement.	$195,000	$195,000
	Key Benefits: Pedestrian/Bicycle Connectivity, Safe Routes to School, Livability		
Financially Constrained Plan			**$195,000**

** Probable construction costs should be used for planning purposes only. Each project cost estimate should be revisited when determining specific project funding needs.*
*** Identification of potential funding contributors is for budgeting purposes only and does not create an obligation for funding from parties listed.*

Table 16: Financially Constrained Plan Bicycle Facility Improvements

Project ID	Project Description	Probable Construction Costs*	Financially Constrained Plan Budget (Potential Funding Partners)**
BL1	**Rose St**: W 18th Ave to W 13th Ave: Bike Lanes - Roadway would need to be restriped to remove on-street parking. ***Key Benefits: Bicycle Connectivity, Safe Routes to School***	$65,000	$65,000
BL2	**W 6th Ave**: Timothy Pl to OR 99: Bike Lanes - Need to restripe roadway to include 8' parking aisles, 6' bike lanes, 11' travel lanes. ***Key Benefits: Bicycle Connectivity, Safe Routes to School***	$125,000	$125,000
BL3	**W 10th Ave**: Oaklea Dr to Nyssa St: Bike Lanes - Roadway would need to be restriped to remove on-street parking. Need community feedback about utilization of existing on-street parking. ***Key Benefits: Bicycle Connectivity, Safe Routes to School***	$125,000	$125,000
BL4	**E 6th Ave**: Front St to Birch St: Bike Lanes - Would need to restripe roadway to include 8' parking aisles, 6' bike lanes, 11' travel lanes. ***Key Benefits: Bicycle Connectivity, Safe Routes to School***	$50,000	$50,000
BL5	**W 10th Ave**: Nyssa St to OR 99: Bike Lanes – Would require parking removal on one side of the street to include one 8' parking aisle, 6' bike lanes, 11' travel lanes. Need community feedback about utilization of existing on-street parking. ***Key Benefits: Bicycle Connectivity, Safe Routes to School***	$60,000	$60,000
BL6	**Birch St**: E 1st Ave to E 6th Ave: Bike Lanes - Need to restripe roadway to include 7' parking aisles, 5' bike lanes, 11' travel lanes. ***Key Benefits: Bicycle Connectivity***	$65,000	$65,000

BVD2	**Nyssa St/Oak St**: Laurel Elementary School to W 6th Ave: Install Shared Lane Markings and traffic calming techniques as appropriate to create a bicycle boulevard with low volume and low speed motor vehicle use. Alignment would run north on Nyssa St from W 6th Ave, cross W 10th Ave, turn west on W 12th Ave, and turn north on Oak St to connect to the shared-use path at Laurel Elementary School. Consider installing an All-Way stop at the intersection on W 10th Ave with Nyssa St and crossing enhancements at the intersection on W 6th Ave with Nyssa St. ***Key Benefits: Bicycle Connectivity, Safe Routes to School***	$45,000	$45,000
SLM1	**Rose St**: W 13th Ave to W 10th Ave: Shared-Lane Markings - Existing on-street parking is actively used. Supplemental warning signs should be installed leading into the curve. ***Key Benefits: Bicycle Connectivity, Safe Routes to School***	$5,000	$5,000
SLM2	**Maple St**: W 6th Ave to W 1st Ave: Shared-Lane Markings ***Key Benefits: Bicycle Connectivity, Safe Routes to School***	$10,000	$10,000
SLM3	**E 6th Ave**: OR 99 to Front St: Shared-Lane Markings – Traffic volumes are higher than preferred, but speeds are low. Recommend converting angled on-street parking to parallel parking to enhance cyclist visibility. ***Key Benefits: Bicycle Connectivity, Safe Routes to School***	$5,000	$5,000
SLM4	**Deal St**: E 6th Ave to Dane Ln: Shared-Lane Markings ***Key Benefits: Bicycle Connectivity***	$15,000	$15,000
	Financially Constrained Plan		**$570,000**

* Probable construction costs should be used for planning purposes only. Each project cost estimate should be revisited when determining specific project funding needs.

** Identification of potential funding contributors is for budgeting purposes only and does not create an obligation for funding from parties listed.

Table 17: Financially Constrained Plan Motor Vehicle Facility Improvements

Project ID	Project Description	Probable Construction Costs*	Financially Constrained Plan Budget (Potential Funding Partners)**
New Roadways/Roadway Extensions			
MV9	**Hatton Lane**: Extend west to Prairie Road: Phase 1: Acquire right-of-way for Hatton Lane extension to Prairie Road, and construct a pedestrian and bicycle connection (see BL10). Phase 2: Extend Hatton Lane as a new Collector Street connecting Prairie Road to OR 99.	Phase 1: $210,000	Phase 1: $210,000
	Key Benefits: Connectivity	Phase 2: $655,000	
Roadway Modernizations			
MV12	**W 1st Avenue/High Pass Road***#**: Oaklea Drive to OR 99: Construct to Arterial standards including center turn lane, bike lanes, and sidewalks.	$6,070,000	No City funds designated from Financially Constrained budget. Assumed funded by grants or other funding partners. (Potential funding partners: Lane County)
	Key Benefits: Pedestrian/Bicycle Connectivity, Safe Routes to School, Safety, Livability, Auto Mobility		
MV14	**W 6th Avenue#**: Oaklea Drive to Timothy Street: Construct to Major Collector standards including bike lanes and sidewalks.	$1,735,000	$433,750 of City funds designated from Financially Constrained budget. Remainder assumed funded by grants or other funding partners. (Potential funding partners: Lane County, Developers)
	Key Benefits: Pedestrian/Bicycle Connectivity, Safe Routes to School, Livability		
Safety Improvements			
MV24	**Restripe E 6th Avenue**: OR 99 to Front Street: Convert from front-facing angle parking to parallel parking to provide consistent center-line.	$10,500	$10,500
	Key Benefits: Safety, Safe Routes to School		
MV 25	**OR 99 Traffic Signal Upgrades: OR 99E/OR 99W, OR 99/OR 36, and OR 99/Milliron Road**: Upgrade signal head backplates with retroreflective borders. The remaining signal head upgrades are captured under the crossing improvement projects for the signals at OR 99/10th, OR 99/6th, and OR 99/1st.	$10,000	No City funds designated from Financially Constrained budget. Assumed funded by grants or other funding partners. (Potential funding partners: ODOT)
	Key Benefits: Safety		
Traffic Operations Improvements			

MV27	**Maple Road/Prairie Road intersection with W 1st Avenue/High Pass Road ******: Realign north and south approaches of intersection and add left turn lanes on all approaches	$1,175,000	$587,500 of City funds designated from Financially Constrained budget. Remainder assumed funded by grants or other funding partners. (Potential funding partners: Lane County)
	Key Benefits: Safety, Safe Routes to School, Auto Mobility		
MV28	**OR 99 Traffic Signal Optimization**: OR 99E/OR 99W junction to Milliron Road: Periodically review traffic signal timings along OR 99 to optimize operations as needed to respond to changes in traffic volumes	$30,000	No City funds designated from Financially Constrained budget. Assumed funded by grants or other funding partners. (Potential funding partners: ODOT)
	Key Benefits: Auto Mobility		
	Financially Constrained Plan		**$1,241,750**

** Probable construction costs should be used for planning purposes only. Each project cost estimate should be revisited when determining specific project funding needs.*

*** Identification of potential funding contributors is for budgeting purposes only and does not create an obligation for funding from parties listed.*

***** Impacts to historical cemetery must be considered in any widening plans along High Pass Road.*

***** Southbound approach (Maple Street) traffic operations perform at LOS E as a 2-way stop, exceeding the Junction City mobility standard of LOS D. Several mitigations were considered to address the forecasted mobility deficiency. An all-way stop, a southbound right-turn lane, and adding left-turn pockets on 1st Avenue would not improve performance enough to reach LOS D. To reach LOS D for the southbound turn (from Maple Street), 1st Avenue would need to be reconstructed to include a two-way center left-turn lane.*

 # Identified in Lane County TSP.

POTENTIAL NEW FUNDING SOURCES

Consideration of new funding sources to increase revenue for transportation improvements is recommended to facilitate the implementation of needed projects and cover the cost of basic maintenance and operations. Any potential funding source is constrained based on a variety of factors, including the willingness of local leadership and the electorate to burden citizens and businesses, the availability of local funds to be dedicated or diverted to transportation issues from other competing city programs, and the availability and competitiveness of state and federal funds. Nonetheless, it is important for the City to consider all options to provide and enhance funding for its transportation programs.

This section describes several potential transportation funding sources, including state and county contributions, city sources (i.e., residents, businesses, and/or developers), grants, and debt financing. Many of these sources have been used in the past by other agencies in Oregon, and in most cases, when used collectively, are sufficient to fund transportation improvements for a local community.

FEDERAL, STATE, AND COUNTY CONTRIBUTIONS

There are multiple roadways in Junction City that are the responsibility of either ODOT or Lane County. The City should seek funding partnerships (i.e., contributions) from ODOT and Lane County for projects located on their respective roadways. In addition, direct appropriations are another potential funding source.

ODOT Contributions

The Oregon Transportation Commission (OTC) and the Oregon Department of Transportation have changed how the State Transportation Improvement Program (STIP) is developed. Beginning with the 2015 to 2018 process, the STIP has been divided into two broad categories: *Fix-It* and *Enhance*. *Fix-It* includes activities that fix or preserve the transportation system, while *Enhance* includes activities that enhance, expand, or improve the transportation system. The new STIP development process seeks to identify the most effective projects based on community and state values, rather than those that fit best into prescribed programs. The change was made to enable ODOT to take care of the existing transportation assets while still providing a measure of funding to enhance the state and local transportation system in a truly multimodal way. As has been the case for many years, the OTC continues to put a strong emphasis on preserving the existing transportation system first. This is evidenced by the funding split between the *Fix-It* portion of the proposed new STIP (76 percent) and the *Enhance* portion (24 percent).

Programmed projects are included in the four-year STIP, which is updated every two years. ODOT maintenance districts also have available funds that may be used for small-scale projects

such as in-fill sidewalks or culvert repair on a state highway.

When considering proposed land use actions, such as subdivisions or site development, the City should not assume that projects planned on state highways will be in place to support the proposed development unless the project is programmed in the current STIP. Construction of projects which have been previously required through the City land use or ODOT approach permit approval process may be assumed if construction of the development is in process. For proposed comprehensive plan amendments, which must consider the long-term adequacy of the transportation system for TPR 660-012-0060 compliance, ODOT must be consulted to determine whether a highway project is “reasonably likely to be funded” based on current funding projections.

Grants

Junction City should actively pursue State and Federal grants, in particular to complete desired pedestrian and bicycle projects. Grant opportunities include funding for pedestrian, bicycle, Intelligent Transportation System (ITS), and Safe Routes to School improvements. Grant

sources change over time, but current sources to explore include:

Federal Funding Sources

- Highway Safety Improvement Program
- Transportation Alternatives Program
- Transportation for Elderly Persons and Persons with Disabilities
- Community Development Block Grants
- Land and Water Conservation Fund
- Congestion Mitigation & Air Quality Improvement Program
- TIGER Grants

State Funding Sources

- Oregon Immediate Opportunity Fund
- ConnectOregon
- Oregon Parks and Recreation Department Local Government Grants
- Oregon Transportation Infrastructure Bank
- Oregon Special Transportation Fund
- Oregon Pedestrian Safety Enforcement Mini-Grant Program
- Oregon Safe Routes to School
- Oregon Transportation and Growth Management Program (for planning studies only)

Other Funding Sources

- PeopleForBikes Community Grant Program

Direct Appropriations

The City can also seek direct appropriations from the State Legislature and/or the United States Congress for transportation capital improvements. The City may want to pursue these special, one-time appropriations, particularly for projects that support economic development.

CITY SOURCES

The City can also look to local residents, business owners, and developers to raise additional funds designated for transportation-related improvements. Optional sources include developer exactions, Urban Renewal Districts (URD), Local Fuel Taxes, SDC increases, Local Improvement Districts (LID), General Fund revenue transfers, special assessments, and employment taxes.

Developer Exactions

Exactions are roadway and/or intersection improvements that are partially or fully funded by developers as conditions of development approval. Typically, all developers are required to improve the roadways along their frontage upon site redevelopment. In addition, when a site develops or redevelops, the developer may be required by the City, County, or ODOT (through a highway approach permit) to provide off-site improvements depending upon the expected level of traffic generation and the resulting impacts to the transportation system.

Urban Renewal District (URD)

A URD is a tax-funded district within the City. Improvement projects within the district are typically paid for through bonds and constructed up front, with the bond debt paid by the incremental increases in property taxes

that result from the improvements made. While this process can be used to pay for transportation improvements, it also channels future tax revenue away from other potential uses until the debt is paid or until the term of the district expires.

Local Fuel Tax

Twenty-two cities and two counties in Oregon have adopted local fuel taxes by public vote, ranging from one to five cents per gallon. Nearby locations with a City fuel tax include Cottage Grove (three cents per gallon), Veneta (three cents per gallon), Springfield (three cents per gallon), Coburg (three cents per gallon) and Eugene (five cents per gallon).

Based on experiences in other communities, a local fuel tax in Junction City could generate approximately $10,000 annually for every cent charged. A three to five-cent tax, similar to neighboring communities, could generate $30,000 to $50,000 annually (or approximately $1,000,000 by the year 2036). This is roughly equivalent to the projected budget shortfall for basic transportation maintenance and operations.

With the tax being applied to fuel sales, visitors and people traveling through Junction City will contribute revenue as well as local residents. Assuming the average driving resident in Junction City travels 12,000 miles per year with a rate of fuel consumption of just over 20 miles per gallon of fuel, they would pay about $6 annually for every cent of local fuel tax charged.

Local Improvement District (LID)

The City may set up Local Improvement Districts (LIDs) to fund specific capital improvement projects within defined geographic areas, or zones of benefit. LIDs impose assessments on properties within its boundaries and may only be spent on capital projects within the geographic area. Benefiting properties are assessed their share to pay for improvements.

Since LIDs may not fund ongoing maintenance costs, they require separate accounting. Furthermore, because citizens representing 33 percent of the assessment can terminate a LID and overturn the planned projects, LID projects and costs must obtain broad approval of property owners within the LID boundaries. LIDs can be matched against other funds where a project has system wide benefit beyond the adjacent properties. LIDs are often used for sidewalks and pedestrian amenities that provide clear benefit to residents along the subject street.

Street Utility Fee

A number of Oregon cities supplement their street funds with street utility fees. Establishing user fees to fund applicable transportation activities and/or capital construction ensures that those who create the demand for service pay for it proportionate to their use. Street utility fees are recurring monthly charges included on existing local utility bills that are paid by all residential, commercial, industrial, and institutional users. The fees are charged proportionate to the amount of traffic generated, so a retail commercial user pays a higher rate than a residential user. Typically, there are provisions for reduced fees for those that can demonstrate they use less than the average rate, for example, a residence where no cars or trucks are registered.

While the fee structure per user varies, a street utility fee that costs the average single-family homeowner in Junction City $3 to $5 per month could generate approximately $25,000 to $35,000 annually, which is roughly equivalent to the projected budget shortfall for basic

transportation maintenance and operations. As the city grows through the year 2036, the annual revenue could increase to well over $100,000 with no increase in the monthly fee.

From a system health perspective, forming a street utility fee establishes a source of reliable, dedicated funding for transportation. Fee revenue use is flexible and can be used for maintenance and operations expenses or can be used to secure revenue bond debt used to finance capital construction. A street utility fee can be formed by Council action and does not require a public vote.

General Fund Revenues

At the discretion of the City Council, the City can allocate General Fund revenues to pay for its transportation program. General Fund revenues primarily include property taxes, user taxes, and any other miscellaneous taxes and fees imposed by the City. Allocation is completed through the City's annual budget process, but the funding potential of this source is constrained by competing community priorities set by the City Council. General Fund resources could fund any aspect of the transportation program, from capital improvements to operations, maintenance, and administration. Additional revenues available from this source are only available to the extent that either General Fund revenues are increased or City Council directs and diverts funding from other City programs.

Special Assessments

A variety of special assessments are available in Oregon to defray the costs of sidewalks, curbs, gutters, street lighting, parking, and central

business district or commercial zone transportation improvements. These assessments would likely fall within the Measure 50 limitations. One example is the 50/50 program. This is a match program for sidewalk infill projects where property owners pay half the cost of a sidewalk improvement and the City matches the investment to complete the project.

Employment Taxes

Employment taxes may be levied to raise additional funds. For example, in the Portland region, payroll and self-employment taxes are used to generate approximately $145 million annually. The City of Portland has chosen to earmark these funds for transit agency operations.

Debt Financing

While not a direct funding source, debt financing is another funding method. Through debt financing, available funds can be leveraged and project costs can be spread over the projects' useful lives. Though interest costs are incurred, the use of debt financing can serve not only as a practical means of funding major improvements, but it is also viewed as an equitable funding source for larger projects because it spreads the burden of repayment over existing and future customers who will benefit from the projects. One caution in relying on debt service is that a funding source will still need to be identified to fulfill annual repayment obligations. Two methods of debt financing are voter-approved general obligation bonds and revenue bonds.

Voter-Approved General Obligation Bonds

Subject to voter approval, the City can issue General Obligation (GO) bonds to debt finance capital improvement projects. GO bonds are backed by the increased taxing authority of the City, and the annual principal and interest repayment is funded through a new, voter-approved assessment on property throughout

the City (i.e., a property tax increase). Depending on the critical nature of projects identified in the Transportation System Plan and the willingness of the electorate to accept increased taxation for transportation improvements, voter-approved GO bonds may be a feasible funding option for specific projects. Proceeds may not be used for ongoing maintenance.

Revenue Bonds

Revenue bonds are municipal bonds that are secured by the revenue received by financing income-producing projects. In contrast to GO bonds, revenue bonds fund projects that generally only serve those in the community who pay for their services. Given the nature of revenue bonds, they may not be as applicable to transportation projects as are GO bonds and are most commonly used for other municipal projects such as sewer and water system upgrades where users pay a monthly fee for service. Interest costs for revenue bonds are slightly higher than for GO bonds due to the perceived stability offered by the "full faith and credit" of a jurisdiction

IMPLEMENTATION

As part of the process to update Junction City's TSP, the City's Municipal Code was audited and regulatory language was recommended to implement the TSP, as well as ensure consistency with the state Transportation Planning Rule (OAR 660-12).

EXHIBIT B to Ordinance No. PA 1344

FINDINGS OF COMPLIANCE WITH LANE CODE CRITERIA
LC 16.400 RURAL COMPREHENSIVE PLAN AMENDMENTS

Junction City adopted an updated Transportation System Plan (TSP) in 2016 and requests co-adoption by the Lane County Board of Commissioners (Board). The County Rural Comprehensive Plan includes all of the comprehensive plans adopted by the 12 cities within Lane County. Each city adopts, as part of its comprehensive plan, its own transportation element or TSP. The Lane County TSP is a special purpose plan and a component of the Lane County Rural Comprehensive Plan. Because the cities' TSPs effectively become part of the county's Rural Comprehensive Plan, TSPs need to be co-adopted by the County. The process for co-adoption of the Junction City Transportation System Plan is through a Lane County Rural Comprehensive Plan (RCP) amendment.

The procedures for amending the RCP are at Lane Code 16.400(6). These procedures require the Planning Commission to hold a public hearing and make a recommendation to the Board of County Commissioners. The record before the Planning Commission is also forwarded to the Board along with the recommendation. This amendment does not include an exception to Statewide Planning Goals. As required by the approval criteria, findings of compliance with Statewide Planning Goals are provided below.

APPROVAL CRITERIA AND FINDINGS:
The relevant approval criteria for this action are provided below in **bold** with findings and conclusions provided in regular text.

LC 16.400(6)(iii) The Board may amend or supplement the Rural Comprehensive Plan upon making the following findings:

- **(aa) For Major and Minor Amendments as defined in LC 16.400(8)(a) below, the Plan component or amendment meets all applicable requirements of local and state law, including Statewide Planning Goals and Oregon Administrative Rules.**
- **(bb) For Major and Minor Amendments as defined in LC 16.400(8)(a) below, the Plan amendment or component is:**
  - **(i-i) necessary to correct an identified error in the application of the Plan; or**
  - **(ii-ii) necessary to fulfill an identified public or community need for the intended result of the component or amendment; or**
  - **(iii-iii) necessary to comply with the mandate of local, state or federal policy or law; or**
  - **(iv-iv) necessary to provide for the implementation of adopted Plan policy or elements; or**
  - **(v-v) otherwise deemed by the Board, for reasons briefly set forth in its decision, to be desirable, appropriate or proper.**

FINDING: The proposal (TSP) is a major amendment as defined in Lane Code because it is not limited to a Plan Diagram amendment (minor amendment). Consistent with the above criteria, the amendment is necessary for the following reasons:

- It is necessary for Lane County to co–adopt the Junction City TSP in order for that document to have jurisdiction over transportation–related actions outside of the city limits but inside the Junction City Urban Growth Boundary;
- Lane County has jurisdiction over several roads within the city; and
- Lane County is required to co-adopt the Junction City TSP as a facility plan and component of the RCP to provide for a connected, safe and efficient transportation network.

The TSP is consistent with all applicable requirements of local and state law including Statewide Planning Goals and Oregon Administrative Rules as discussed in the following findings.

Goal 1 - Citizen Involvement: **To develop a citizen involvement program that insures the opportunity for citizens to be involved in all phases of the planning process.**

FINDING: The proposal is consistent with Statewide Planning Goal 1 because the process used to develop and adopt this amendment provided the opportunity for citizens to be involved in all phases of the planning process, as follows:

- On June 6, 2016, Junction City mailed noted to the Oregon Department of Land Conservation and Development (DLCD).
- On June 22, 2016, notice of a public hearing regarding the proposed TSP update before the Junction City Planning Commission was published in *The Register Guard*.
- On July 20, 2016, the Junction City Planning Commission held a public hearing regarding the proposed amendments and voted to recommend Council adoption of the TSP.
- On August 18, 2016, notice of a public hearing before the Junction City Council was posted in four locals throughout the City, at the Community Center, Library, Post Office, and City Hall, and the same notice was published in The Register Guard on August 31, 2016
- On September 13, 2016, the Junction City Council held a public hearing and took testimony on this matter, taking said testimony into consideration in making its decision, which was to approve the TSP.
- On November 18, 2016, Lane County mailed Oregon Department of Land Conservation and Development (DLCD) Notice of the proposed co-adoption and public notice of the January 3, 2017 Lane County Planning Commission public hearing.
- On December 1, 2016, public notice of the January 3, 2017 Lane County Planning Commission public hearing was provided.
- On December 13, 2016, a legal ad was published in *The Register Guard*, providing notice of the January 3, 2017 Lane County Planning Commission public hearing.
- On January 3, 2017, the Lane County Planning Commission held a public hearing and unanimously recommended the Board approve the Junction City co-adoption package as presented.
- On March 21, 2017, the Lane County Board of Commissioners conducted a first reading of the co-adoption ordinance to establish a public hearing date.

The Junction City TSP update constitutes a plan amendment subject to the public notification and hearing processes and provisions of Lane Code. As described above, the public involvement requirements have been met and opportunity for public involvement has been afforded at each phase of the process. The amendment is therefore consistent with statewide planning Goal 1.

Goal 2 - Land Use Planning: To establish a land use planning process and policy framework as a basis for all decisions and actions related to use of land and to assure an adequate factual base for such decisions and actions.

FINDING: The Rural Comprehensive Plan was acknowledged by the Land Conservation and Development Commission (LCDC) as complying with Statewide Planning Goals. LC 16.400, adopted and acknowledged by LCDC, specifies the means by which the RCP may be amended. Notice of the public hearing and pending adoption of the Junction City TSP co-adoption was mailed to the Oregon Department of Land Conservation and Development (DLCD) on November 18, 2016. The co-adoption process follows the procedures outlined in Lane Code and these findings provide an adequate factual basis for action. Junction City updated its TSP for consistency with its comprehensive plan, which was amended in 2012 for an expanded urban growth boundary. The City's adoption process was made pursuant to the procedures outlined in Goal 12 and OAR 660-011 for public facilities. The amendment therefore conforms to the established land use planning process and framework consistent with Goal 2.

Goal 3 – Agricultural Land: To preserve and maintain agricultural lands

Goal 4 – Forest Lands: To conserve forest lands by maintaining the forest land base and to protect the state's forest economy by making possible economically efficient forest practices that assure the continuous growing and harvesting of forest tree species as the leading use on forest land consistent with sound management of soil, air, water, and fish and wildlife resources and to provide for recreational opportunities and agriculture.

FINDING: Goals 3 and 4 require counties to inventory agricultural lands and to maintain and preserve them through EFU zoning. Because the TSP is relevant to facilities within the acknowledged Urban Growth Boundary of Junction City, Goals 3 and 4 are not applicable.

Goal 5 - Open Spaces, Scenic and Historic Areas, and Natural Resources: To conserve open space and protect natural and scenic resources.

FINDING: TSP projects were developed and considered with impacts to open space, scenic and historic areas, and natural resources. Most of projects within the TSP are adjacent to or within the right of way of existing transportation facilities, and have very little potential impacts outside of existing right-of-way. There are a few multi-use trails that are adjacent to or potentially through open spaces and scenic areas, and the project description includes flexibility and consideration of impacts when implementing these trails to minimize negative impacts to open space, historic and scenic areas and natural resources. Therefore, Goal 5 has been adequately addressed.

Goal 6 - Air, Water and Land Resources Quality: To maintain and improve the quality of the air, water and land resources of the state.

FINDING: The TSP contains goals, objectives and projects that encourage the use of alternative transportation methods. Most of projects in the plan are on existing facilities and will have any limited to no impacts on air, water, and land resource quality. The TSP also contains a policy (Policy 3b) to

minimize or avoid adverse impacts on natural scenic, historic, and open space resources within Junction City. The TSP includes multi-modal projects and programs to reduce reliance on the single occupant vehicle to mitigate future impacts and improve air quality within the City. Therefore, Goal 6 has been adequately addressed.

Goal 7 - Area Subject to Natural Disasters and Hazards: To protect life and property from natural disasters and hazards.

FINDING: Goal 7 requires that jurisdictions apply appropriate safeguards when planning development in areas that are subject to natural hazards such as flood hazards. The only identified natural hazard in Junction City is flooding. Junction City has an acknowledged floodplain protection ordinance. Land within the floodway is considered unsuitable for urban development. Areas subject to natural disasters and hazards have been considered in the development of the planned transportation system to ensure that these areas are avoided. Therefore, Goal 7 has been properly addressed.

Goal 8 - Recreational Needs: To satisfy the recreational needs of the citizens of the state and visitors and, where appropriate, to provide for the siting of necessary recreational facilities including destination resorts.

FINDING: The TSP identifies and includes pedestrian and bicycle projects that connect residential areas to recreational destinations such as parks and open spaces. Therefore, Goal 8 has been addressed.

Goal 9 -Economic Development: To provide adequate opportunities throughout the state for a variety of economic activities vital to the health, welfare, and prosperity of Oregon's citizens.

FINDING: The TSP reinforces the City's road network with transportation projects that provide access to commercial and industrial facilities and employment sites. Adopting the TSP will ensure that transportation improvements will be available to support the planned uses in the City's employment areas, consistent with other local economic development goals stated within the Comprehensive Plan.

Goal 10 - Housing: To provide for the housing needs of citizens of the state.

FINDING: The TSP bolsters the livability of Junction City's residential areas by including appropriate access, street, bicycle and pedestrian facilities to serve current and future residential developments. Therefore, Goal 10 has been addressed.

Goal 11 - Public Facilities and Services: To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.

FINDING: The DLCD acknowledged 2012 Comprehensive Plan found compliance with the Statewide Planning Goals. Goal 11, Public Facilities, is implemented through OAR 660-011. The City has a Public Facilities Plan that addresses drinking water, sanitary sewer, and storm drainage facilities in compliance with the above regulations. This Transportation System Plan replaces the currently adopted 2000

Transportation System Plan, which has been serving as the transportation section for the Public Facilities Plan. Per OAR 660-011-0010(1), this Public Facility Plan must include the following:

(a) An inventory and general assessment of the condition of all the significant public facility systems which support the land uses designated in the acknowledged comprehensive plan.

FINDING: The 2016 Transportation System Plan Update includes an inventory and general assessment of significant transportation facilities.

(b) A list of the significant public facility projects which are to support the land uses designated in the acknowledged comprehensive plan.

FINDING: The 2016 Transportation System Plan Update includes a list of significant public facility transportation projects of all modes that support the land uses designated in the acknowledged comprehensive plan.

(c) Rough cost estimates of each public facility project.

FINDING: Rough cost estimates for each project identified is included in the 2016 Transportation System Plan Update.

(d) Maps or written description of each public facility project's general location or service area.

FINDING: Maps and written descriptions are provided for each transportation project identified.

(e) Policy statement(s) or urban growth management agreement identifying the provider of each public facility system. If there is more than one provider with the authority to provide the system within the area covered by the public facility plan, then the provider of each project shall be designated.

FINDING: Policy statements are provided identifying each provider of each public facility transportation element.

(f) An estimate of when each facility project will be needed.

FINDING: The 2016 Transportation System Plan Update identifies each transportation project as short, medium and long range depending on the funding source and when the project is needed.

(g) A discussion of the City's existing funding mechanisms and the ability of these and possible new mechanisms to fund the development of each public facility project or system.

FINDING: A discussion on existing and proposed funding mechanisms for these transportation projects is provided in the plan. With this information, the City of Junction City can adequately plan for or develop timely, orderly and efficient arrangements of transportation facilities over the planning horizon

(next 20 years). Therefore, the proposed amendments comply with Goal 11.

Goal 12 - Transportation: To provide and encourage a safe, convenient and economic transportation system.

FINDING: Goal 12 encourages the provision of a safe, convenient and economic transportation system. This goal also implements provisions of other statewide planning goals related to transportation planning in order to plan and develop transportation facilities and services in coordination with urban and rural development (OAR 660-012-0000(1)). The 2016 Transportation System Plan updates the 2000 adopted TSP to include expanded Urban Growth Boundary areas, revise planning expectations based on new traffic data and population forecasts, repeal outdated access requirements stated within the Highway 99 Refinement Plan, and addresses multi-modal concerns more comprehensively. This TSP considers all modes of transportation, including mass transit, rail, vehicular, bicycle and pedestrian.

The TSP was developed using 2015 population projections from the Portland State University Population Research Center Population Forecasts. This TSP is based on an inventory of local, regional and state transportation needs, bolstered by traffic data gathered from 2010 through 2016. It is designed to emphasize the importance of a multi-modal transportation network; minimize adverse social, economic and environmental impacts and costs; conserve energy through the use and enhancement of existing facilities and right-of-ways; meet the needs of transportation disadvantaged by improving transportation services and multi-modal access; facilitate the flow of goods and services so as to strengthen the local and regional economy; and conform with and bolster local and regional comprehensive land use plans and planning efforts.

Goal 12 is further implemented through the Transportation Planning Rule (TPR) of Oregon Administrative Rules (OAR). Finds of compliance with these rules is as follows:

Oregon Administrative Rules (OAR 660-012) – Transportation Planning Rule

660-012-0015(3), Preparation and Coordination of Transportation System Plans - Cities and counties shall prepare, adopt and amend local TSPs for lands within their planning jurisdiction in compliance with this division:

(a) Local TSPs shall establish a system of transportation facilities and services adequate to meet identified local transportation needs and shall be consistent with regional TSPs and adopted elements of the state TSP.

FINDING: The TSP is consistent with this criterion because the system of transportation facilities and services identified are adequate to meet local transportation needs, are consistent with existing regional TSPs (Lane County's TSP) and adopted elements of the state TSP (the Oregon Transportation Plan, OTP).

(b) Where the Regional TSP or elements of the State TSP have not been adopted, the city or county shall coordinate the preparation of the local TSP with the regional transportation planning body and

ODOT to assure that regional and state transportation needs are accommodated.

FINDING: The proposal is consistent with this criterion because development of the TSP was coordinated with Lane County and ODOT.

Section 660-012-0015(4) Cities and counties shall adopt regional and local TSPs required by this division as part of their comprehensive plans. Transportation financing programs required by OAR 660-012-0040 may be adopted as a supporting document to the comprehensive plan.

FINDING: The TSP is consistent with this criterion because it is adopted as part of the City's comprehensive plan and will be co-adopted by Lane County.

Section 660-012-0015(5). The preparation of TSPs shall be coordinated with affected state and federal agencies, local governments, special districts, and private providers of transportation services.

FINDING: The TSP was prepared in coordination with affected state and federal agencies, local governments, special districts and private providers of transportation services.

Section 660-012-0016(1). Coordination with Federally-Required Regional Transportation Plans in Metropolitan Areas- In metropolitan areas, local governments shall prepare, adopt, amend and update transportation system plans required by this division in coordination with regional transportation plans (RTPs) prepared by MPOs required by federal law.

FINDING: The criterion is not applicable as Junction City is neither in a metropolitan area nor in a Metropolitan Planning Organization (MPO).

Section 660-012-0020(1). Coordinated Network of Transportation Facilities, of the TPR requires TSPs to establish a coordinated network of transportation facilities adequate to serve state, regional and local transportation needs.

FINDING: The TSP complies with this criterion because it includes a coordinated network of transportation facilities adequate to serve state, regional and local transportation needs.

Section 660-012-0020(2)(a). Determination of Transportation Needs, of the TPR requires TSPs to include a determination of transportation needs as provided in 660-012-0030.

FINDING: The TSP is consistent with this criterion as demonstrated in the findings for 660-012-0030, which are hereby incorporated into this finding by this reference.

Section 660-012-0020(2)(b). Road Plan of the TPR requires a plan that includes a system of arterials and collectors and standards for the layout of local streets and other important non-collector street connections.

FINDING: The TSP is consistent with this requirement as it contains street classification maps and standards for the City. The TSP includes a system of arterials, collectors, and local streets.

Section 660-012-0020(2)(c). Public Transportation Plan of the TPR requires an inventory and assessment of public transportation services including services for the transportation disadvantaged.

FINDING: The TSP is consistent with this criterion because it includes an inventory and assessment of public transportation services including those for the transportation marginalized or disadvantaged.

Section 660-012-0020(2)(d). Pedestrian Plan of the TPR requires a plan for a network of pedestrian routes throughout the planning area.

FINDING: The TSP is consistent with this requirement because it includes a pedestrian plan for the entire planning area.

Section 660-012-0020(2)(e). Air, Rail, Water, and Pipeline Transportation Plan, of the TPR requires TSPs to identify where major facilities are located or planned within the planning area.

FINDING: The TSP meets this requirement related to air, rail, and pipeline transmission. There are no navigable waterways within the Junction City urban growth boundary. The existing condition of accommodations for transit, rail, air, pipeline, and waterway transportation in Junction City was described in a technical memorandum that has been included in the appendix. The City does not own or operate facilities or programs related to these modes of travel, but can support them through adoption of policies and construction of complimentary improvements.

Section 660-012-0020(2)(f). Transportation System Management, of the TPR requires TSPs to address travel demand with measures which may include traffic signal improvements, traffic control devices, channelization, access management, ramp metering, and restriping for HOV lanes.

FINDING: The TSP addresses Transportation System Management. The TSP is supportive of this policy because it includes policies and goals that call for giving preference to transportation improvements that use existing roadway capacity efficiently and improve the safety of the system; supports using access management in situations where needed to ensure the safe and efficient operation of higher-speed, heavily traveled streets; and includes projects, programs, and strategies to make the system more efficient and safe without additional capacity increases.

Section 660-012-0020(2)(g). A parking plan in MPO areas as provided in OAR 660-012- 0045(5)(c).

FINDING: This criterion is not applicable as the planning area is not within an MPO.

Section 660-012-0020(2)(h). Policies and land use regulations for implementing the TSP as provided in OAR 660-012-0045.

FINDING: The proposal is consistent with this criterion as the Comprehensive Plan and Junction City Municipal Code include TSP implementation measures.

Section 660-012-0020(3)(a) Requires an inventory, assessment of capacity, and conditions for the street system.

FINDING: The TSP meets this requirement because it includes an inventory and assessment of capacity and conditions for the street system.

Section 660-012-0020(3)(b). A system of planned transportation facilities, services and major improvements. The system shall include a description of the type of functional classification of planned facilities and services and their planned capacities and performance standards.

FINDING: The TSP meets this requirement because it includes maps and project descriptions for major transportation improvements, including local street improvements.

Section 660-012-0020(3)(c). A description of the location of planned facilities, services and major improvements, establishing the general corridor within which the facilities, services or improvements may be sited. This shall include a map showing the general location of proposed transportation improvements, a description of facility parameters such as minimum and maximum road right of way width and the number and size of lanes, and any other additional description that is appropriate.

FINDING: The TSP is consistent with this criterion because the TSP includes a description/map of the location of planned facilities and major improvements, and its street standards provide a description of facility parameters such as minimum and maximum road right of way width, number and size of lanes, and other relevant design standards.

Section 660-012-0020(3)(d). Identification of the provider of each transportation facility or service.

FINDING: The TSP is consistent with this criterion because the plan text identifies providers of each transportation facility or service; and the discussion of transit projects identifies the transit service provider.

Section 660-012-0025(2). Complying with Statewide Goals. The TPR requires findings of compliance with applicable statewide planning goals.

FINDING: The TSP is consistent with this requirement because statewide planning goal findings of compliance are included in this report.

Section 660-012-0025(2). Complying with Comprehensive Plan. The TPR requires findings of compliance with applicable acknowledged comprehensive plan policies.

FINDING: The TSP is consistent with this requirement because the proposal is consistent with applicable acknowledged comprehensive plan policies and is the transportation element of the Comprehensive Plan. The proposed TSP implements and provides a transportation system that evenly distributes traffic throughout the community, minimizes impacts to residential streets, identifies arterials; is interconnected, safe, convenient, accessible, environmentally responsible, and considers neighborhood impacts.

Section 660-012-0030(1)(a). Determination of Transportation Needs. The TRP requires TSPs to identify state, regional and local transportation needs relevant to the planning area and the scale of the transportation network being planned.

FINDING: The TSP meets this requirement because it identifies state, regional, and local transportation needs relevant to the Junction City UGB and bases needs on projections of future travel demand. The Lane County Transportation System Plan is currently being updated and shall consider the findings of the Junction City TSP.

Section 660-012-0030(1)(b). Determination of Transportation Needs. The TPR requires TSPs to identify the needs of the transportation disadvantaged.

FINDING: The TSP is consistent with this provision because the needs of the transportation disadvantaged were identified and factored into the project evaluation framework.

Section 660-012-0030(1)(c). Determination of Transportation Needs. The TPR requires TSPs to identify the needs for movement of goods and services to support industrial and commercial development pursuant to OAR chapter 660, division 9 and Goal 9 (Economic Development).

FINDING: The TSP meets this requirement because the TSP identifies facilities to meet the needs for the movement of goods and services to support industrial and commercial development.

Section 660-012-0030(2). Counties or MPO's preparing regional TSP's shall rely on the analysis of state transportation needs in adopted elements of the state TSP. Local governments preparing local TSP's shall rely on the analyses of state and regional transportation needs in adopted elements of the state TSP and adopted regional TSP's.

FINDING: The TSP is consistent with this provision because it is a local TSP and the analyses of state and regional transportation needs as adopted in elements of the state TSP and adopted Lane County TSP were considered in the analyses developing the Junction City TSP.

Section 660-012-0030(3)(a). Determination of Transportation Needs. The TPR requires TSPs to use 20-year population and employment forecasts in determining state, regional, and local needs. Population and employment forecasts and distributions are consistent with the acknowledged comprehensive plan, including those policies that implement Goal 14.

FINDING: The TSP was developed using certified 2015 population projections from the Portland State University Population Research Center Population Forecasts. The TSP update is consistent with this requirement because 20-year state adopted certified population used, and employment forecasts consistent with the Junction City Comprehensive Plan that implements Goal 14, were applied in all transportation component analyses (vehicle, bicycle, pedestrian and transit).

Section 660-012-0030(3)(b). Determination of Transportation Needs. The TPR requires TSPs to include, as part of their determination of needs, measures to reduce reliance on the automobile.

FINDING: The TSP is consistent with this requirement because measures to reduce reliance on the automobile such as increasing bicycle and pedestrian facilities are included in the TSP.

Section 660-012-0035(1). Evaluation and Selection of Transportation System Alternatives. The TSP shall be based upon evaluation of potential impacts of system alternatives that can reasonably be expected to meet the identified transportation needs in a safe manner and at a reasonable cost with available technology. The following shall be evaluated as components of system alternatives: (a) Improvements to existing facilities or services; (b) New facilities and services, including different modes or combinations of modes that could reasonably meet identified transportation needs; (c) Transportation Stem management measures; (d) Demand management measures; and (e) A no-build system alternative required by the National Environmental Policy Act of 1969 or other laws.

FINDING: The TSP is consistent with this requirement because alternatives which could reasonably be expected to meet identified transportation needs in a safe manner and at a reasonable cost with available technology were considered in the development of the preferred alternative/proposed TSP. Evaluation of alternatives included the following components: improvements to existing facilities or services; new facilities and services including different modes or combination of modes; transportation system management measures; transportation demand management measures; and a no-build system alternative which was found to not meet the identified transportation needs.

Section 660-012-0035(3)(a). The following standards shall be used to evaluate and select alternatives: The transportation system shall support urban and rural development by providing types and levels of transportation facilities and services appropriate to serve the land uses identified in the acknowledged comprehensive plan;

(3)(b) The transportation system shall be consistent with state and federal standards for protection of air, land and water quality including the State Implementation Plan under the Federal Clean Air Act and the State Water Quality Management Plan;

(3)(c) The transportation system shall minimize adverse economic, social, environmental and energy consequences;

(3)(d) The transportation system shall minimize conflicts and facilitate connections between modes of transportation; and

(3)(e) The transportation system shall avoid principal reliance on any one mode of transportation by increasing transportation choices to reduce principal reliance on the automobile. In MPO areas this shall be accomplished by selecting transportation alternatives which meet the requirements in section (4) of this rule.

FINDING: The TSP is consistent with this requirement because the above were used to evaluate alternatives and select a preferred alternative. The MPO requirement is not applicable as the planning area is not within an MPO.

Section 660-012-0035(5). MPO areas shall adopt standards to demonstrate progress towards increasing transportation choices and reducing automobile reliance as provided for in this rule.

FINDING: This criterion is not applicable as the planning area is not in an MPO.

Based on the above findings, Goal 12 is met.

Goal 13 - Energy Conservation: Land and uses developed on the land shall be managed and controlled so as to maximize the conservation of all forms of energy, based upon sound economic principles.

FINDING: Goal 13 requires land and uses developed on the land to be managed and controlled to maximize the conservation of all forms of energy, based upon sound economic principles. Energy consequences of the Transportation System Plan have been considered. The recommended projects and stated policies within the TSP support a balanced transportation system that encourages walking, bicycling, and public transit trips that reduce the need for single-occupant vehicles. Therefore, Goal 13 has been adequately addressed.

Goal 14 - Urbanization: To provide for an orderly and efficient transition from rural to urban land use.

FINDING: The TSP supports efficient and orderly development in Junction City by providing a

multimodal transportation system within the Urban Growth Boundary. The TSP does not affect or change the existing UGB, although the plan includes projects and goals for multi-modal transportation service provisions to the recently included UGB expansion areas. The TSP details how the City will expand existing facilities to encourage a safe, convenient, and economic transportation system that meets projected population and employment growth within the existing UGB through 2036. Therefore, Goal 14 has been adequately addressed.

Goal 15 – 19 Willamette River Greenway; Estuary Resources; Coastal Shore lands; Beaches and Dunes; and Ocean Resources

FINDING: These goals do not apply because these resources are not present within the bounds of Junction City's UGB.

CONCLUSION:
Based upon the preceding findings, it is concluded that co-adoption of the Junction City TSP is consistent with the requirements set forth in the applicable approval criteria. Therefore, the evidence and findings support adoption of the proposal.