

Albany Area Metropolitan Planning Organization

Regional Transportation Plan Framework



Adopted by the AAMPO Policy Board
March, 23 2016

Prepared by:

Albany Area Metropolitan Planning Organization
Oregon Cascades West Council of Governments
1400 Queen Ave SE, Suite 205, Albany, OR 97322
<http://www.ocwcog.org/AAMPO/> (541) 967-8551

With Assistance from:

DKS Associates in association with:
Nelson/Nygaard
CH2M
David Evans and Associates



Table of Contents

Adopting Resolution	iii
Acknowledgements	iv
Albany Area MPO Title VI Notice	v
Chapter 1: Introduction	1
The Albany Area MPO	1
Albany Area Planning Context	1
Chapter 2: Plan Overview	4
Regulatory Framework	4
The Planning Process	5
Existing Plans and Regulations	7
Chapter 3: Goals, Policies, and Objectives	8
Chapter 4: Existing Transportation System	16
Roadways	16
Intelligent Transportation Systems	19
Public Transportation	24
Rail Freight	26
Transportation Demand Management	27
Pedestrian Facilities	29
Bicycle Facilities	30
Air Travel	31
Waterways	31
Pipelines	31
Chapter 5: Future Forecasting	36
Chapter 6: Future Transportation Needs	39
Regional Roadway System Needs	39
Public Transportation System Needs	41
Pedestrian System Needs	41
Bicycle System Needs	41
Rail System Needs	42

ITS System Needs.....	43
Chapter 7: Recommended Project List	44
Funding Assumptions	44
Project Development.....	44
Draft Project List.....	48
References	67

Tables

Table 1: Existing Truck Volumes on Freight Routes within the AAMPO Area (2013)	17
Table 2: Albany Area MPO Hot-Spot Crash Location Summary	19
Table 3: Summary of 2040 Committed Network Corridor Capacity Deficiencies	40
Table 4. Projected Revenue for Transportation Capital Projects FY 2016-2040	47
Table 5: Draft 20-Year Project List	48

Figures

Figure 1: AAMPO Area Map	3
Figure 2: AAMPO Roadway Functional Classification	20
Figure 3: AAMPO Study Intersection and Posted Speed Limits	21
Figure 4: AAMPO Vehicle Fatal and Serious Injury Crashes (2009 -2013)	22
Figure 5: AAMPO Vehicle Crashes and Hot-Spots (2009-2013) and 2014 SPIS Sites	23
Figure 6: Fixed Route Transit in the Albany Area	28
Figure 7: Multimodal Analysis Methodology	29
Figure 8: AAMPO Existing Pedestrian Facilities	32
Figure 9: AAMPO Vehicle-Pedestrian Crashes (2009-2013)	33
Figure 10: AAMPO Existing Bicycle Facilities	34
Figure 11: AAMPO Vehicle-Bicycle Crashes (2009-2013)	35
Figure 12: CALM Model Household Growth	38
Figure 13: CALM Model Employment Growth	38
Figure 14: Constrained Project List by Project Type	45
Figure 15: Draft Project List Map	46

Adopting Resolution

Resolution Number 2016-1

FOR THE PURPOSE OF APPROVING THE ALBANY AREA REGIONAL TRANSPORTATION PLAN FRAMEWORK:

WHEREAS, the U.S. Department of Commerce, Bureau of Census has declared that the City of Albany, City of Millersburg, City of Tangent, City of Jefferson and adjoining areas of Linn, Benton, and Marion Counties form an Urbanized Area named the Albany Urbanized Area; and,

WHEREAS, the Albany Urbanized Area has been designated by the State of Oregon as the official Metropolitan Planning Organization (MPO) of the urbanized area; and,

WHEREAS, the US Department of Transportation and Oregon Department of Transportation (ODOT) have designated representatives of the said areas, together with a representative of ODOT, as the Albany Area Metropolitan Planning Organization (AAMPO) to carry out the Metropolitan Transportation Planning Process; and,

WHEREAS, the Regional Transportation Plan Framework provides a financially constrained project list consistent with the projects and priorities identified in the Metropolitan Transportation Improvement Program (MTIP); and,

WHEREAS, the comments received at the committee meetings, Policy Board meetings, and through other forms of communication were considered; and

WHEREAS, the Regional Transportation Plan Framework will serve as the federally required Metropolitan Transportation Plan (MTP) until a Regional Transportation System Plan (RTSP) is adopted to serve as both the MTP and RTSP for the AAMPO.

WHEREAS, a public hearing on draft components of the RTP Framework on March 23, 2016.

NOW, THEREFORE, BE IT RESOLVED, that the AAMPO Policy Board adopts the Albany Area Regional Transportation Plan Framework.

**PASSED AND APPROVED THIS _____ DAY OF _____, BY THE ALBANY
AREA METROPOLITAN PLANNING ORGANIZATION.**

SIGNED:

ROGER NYQUIST

Albany Area Metropolitan Planning Organization
Policy Board Chair

Acknowledgements

Policy Board

Darrin Lane	City of Millersburg
Floyd Collins	City of Albany
Dave Beyerl	City of Jefferson
Annabelle Jaramillo	Benton County
Roger Nyquist	Linn County
Frannie Brindle	Oregon Department of Transportation
Gary Powell	City of Tangent

Regional Transportation Plan Technical Advisory Committee

Valerie Grigg Devis	Oregon Department of Transportation
Chris Bailey	City of Albany
Josh Wheeler	Benton County
Chuck Knoll	Linn County
Darrin Lane	City of Millersburg
Lissa Davis	City of Jefferson
Georgia Edwards	City of Tangent
Laurie Starha	Benton County
Jim Stouder	Benton County
Lee Lazaro	Benton County Special Transportation Program
Ron Irish	City of Albany
Mark Volmert	Linn County Special Transportation Program
Barry Hoffman	City of Albany, Albany Transit Service
Carl Ang	Linn County Sheriff's Office
John Pascone	Albany-Millersburg Economic Development Corporation
Cody Meyer	Department of Land Conservation and Development
Jon Goldman	City of Albany
Ted Frazier	City of Albany, Call-A-Ride
Ken Bronson	Sweet Home Senior Center
Jean Palmateer	ODOT Public Transit Division
Steve Dickey	Salem-Keizer Area Public Transit
Edna Campau	City of Jefferson Resident
Ned Conroy	Federal Transit Administration Region 10
Nick Fortey	Federal Highway Administration
Mary Camarata	Oregon Department of Environmental Quality
Ed Moore	Oregon Department of Land Conservation and Development
Bill Holstrom	Oregon Department of Land Conservation and Development

Development of this document was possible with funding from the Federal Highway Administration, the Federal Transit Administration, the Oregon Department of Transportation, and the support and involvement of AAMPO jurisdictions and stakeholders. AAMPO and the authors of this document are solely responsible for its contents.

Albany Area MPO Title VI Notice

ALBANY AREA MPO TÍTULO VI COMUNICACIÓN

Title VI of the Civil Rights Act of 1964 states:

“No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.”

The Albany Area MPO is committed to complying with the requirements of Title VI in all of its programs and activities. Any person who believes she or he has been aggrieved by any unlawful discriminatory practice under Title VI may file a complaint with the Albany Area MPO. A complainant may also file a complaint directly with the Federal Transit Administration by addressing the complaint to the Office of Civil Rights, Attention: Title VI Program Coordinator, East Building, 5th Floor - TCR, 1200 New Jersey Ave., SE , Washington, DC 20590.

For more information about the Albany Area MPO’s Title VI / Non-Discrimination Program, including procedures for filing a complaint, contact the AAMPO Coordinator at 541 924-4548; by e-mail to tconley@ocwcog.org; or by visiting the Albany Area MPO administrative offices at: 1400 Queen Ave SE, Suite 205, Albany OR 97322.

If information is needed in another language, contact (541)-924-8405.

Si se necesita información en otro idioma de contacto 541-924-8405

Copies of this document area available:

- Online at the Albany Area MPO website: <http://www.ocwcog.org/transportation/aampo/>
- At the Oregon Cascades West Council of Governments administrative offices: 1400 Queen Ave SE, Suite 205, Albany, OR 97322

Chapter I: Introduction

The Albany Area MPO

Metropolitan Planning Organizations (MPOs) are transportation policy-making bodies established for urbanized areas with populations over 50,000. MPOs are intended to establish a continuing, cooperative, and comprehensive planning process for the metropolitan area.

The Albany Area Metropolitan Planning Organization (AAMPO) was formed following the 2010 Census, which determined that the Albany Urbanized Area had surpassed 50,000 in population. AAMPO membership includes the cities of Albany, Jefferson, Millersburg, and Tangent as well as Linn County, Benton County, and the Oregon Department of Transportation.

AAMPO is governed by a Policy Board composed of representatives from member jurisdictions. A Technical Advisory Committee (TAC) composed of representatives from member jurisdictions as well as ex-officio members from the Federal Highway Administration (FHWA), Federal Transit Administration (FTA), the Oregon Department of Land Conservation and Development (DLCD), and the Oregon Department of Environmental Quality (DEQ) provides technical assistance and support. Staffing is provided through a contract with the Oregon Cascades West Council of Governments (OCWCOG).

Albany Area Planning Context

Geography

The AAMPO planning area is located in Oregon's Willamette Valley, in fertile farmland between the Cascade Range and the Coast Range. AAMPO sits 70 miles south of Portland and 45 miles north of Eugene along the Interstate 5 corridor, at its junction with US. Highway 20 and Oregon Highway 34. The Union Pacific and Burlington Northern Santa Fe railroads provide mainline connections in all directions and Amtrak offers passenger rail service north and south. A map of the AAMPO planning area is shown on Figure 1.

Land Use Patterns

Oregon land use planning regulations require that each city have an urban growth boundary in order to foster compact urban growth and preservation of agricultural and forest lands. This land use pattern creates stretches of rural land uses among AAMPO jurisdictions and between AAMPO and neighboring metropolitan areas. It also creates opportunities for parks, natural areas, and agricultural uses that support local economies.

The communities that make up AAMPO are diverse in size. The City of Albany is the largest city, with a population of 51,670 in 2015, and the most residential, industrial, and commercial development. The three smaller cities – Millersburg, Tangent, and Jefferson - are all less than 3,500 residents. Despite their smaller size, each still has notable industrial development, as well as some employment opportunities in government, manufacturing, and skilled trades. Many residents of the smaller cities commute to Albany, Salem, or elsewhere for employment.

Economy

Key economic drivers in the AAMPO area have historically included agriculture and wood products manufacturing, although this has expanded to include rare metals manufacturing, finished building products, and food processing. Its location along the I-5 corridor has also made the AAMPO area attractive for warehousing and transportation services.

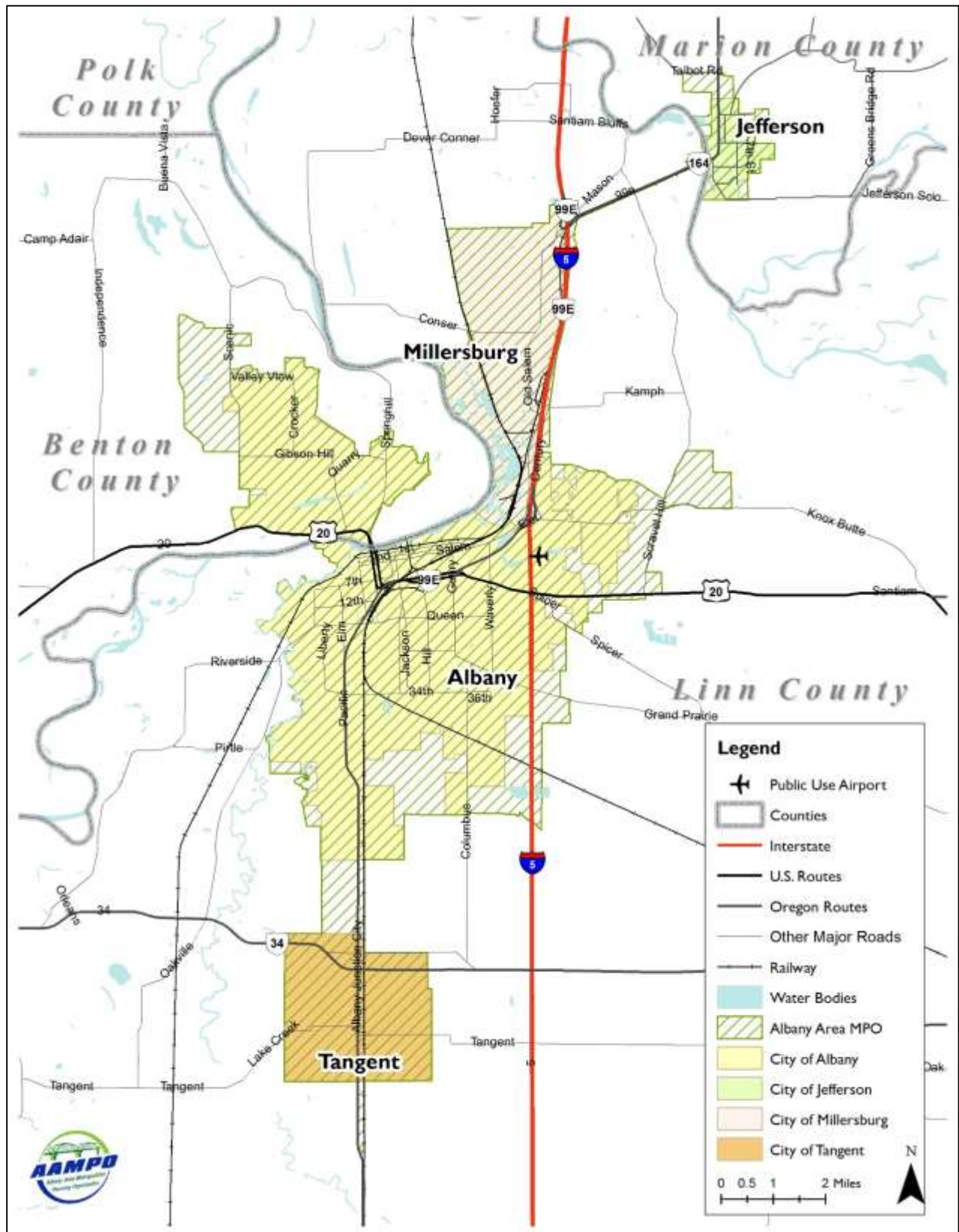
The broader region has also seen growth in the health care and education sectors, which has impacted regional travel patterns and enhanced the interconnectivity of the regional transportation system. Students, faculty, staff, and community members may travel from or through the AAMPO area to get to these regional destinations. The City of Lebanon, 15 miles east of Albany, has seen development of the Western University College of Osteopathic Medicine of the Pacific-Northwest, a Veterans Home, expanded Samaritan Health Services facilities, and the Linn-Benton Community College (LBCC) Alternative Transportation Technology Center. LBCC maintains its main campus in south Albany, and additional campuses in Sweet Home and Corvallis. Oregon State University (OSU), located 11 miles west of Albany in Corvallis, has a significant impact on regional travel patterns. Many students, faculty, and staff live in the AAMPO area and commute into Corvallis each day along Highway 20 and Highway 34. Additionally, a popular dual-enrollment program with LBCC increases daily travel between the LBCC main campus in South Albany and the OSU campus in central Corvallis.

Census data on commute patterns reflects this regional travelshed, showing that many Albany workers commute from the Corvallis-Philomath area, Salem-Keizer, or Lebanonⁱ. Approximately a third of Albany residents work in Albany. Albany residents who commute out of Albany for work most often commute to the Corvallis-Philomath area, Salem-Keizer area, or Portland.

Demographics

From 2000 to 2013, the City of Albany's population grew by approximately 24%ⁱⁱ. During that time, the population of youth grew by 26% while older adults decreased by almost 12%ⁱⁱⁱ. The number of people earning below the poverty line in Albany grew by 109%^{iv}. Albany also became more diverse, with the number of people identifying as Hispanic/Latino growing by 159%^v and the number of individuals with limited English proficiency growing by 62%. The Albany area has a higher percentage of low-income individuals and individuals with disabilities than Linn County and the state as a whole.

Figure 1: AAMPO Area Map



Source: Oregon Cascades West Council of Governments

Chapter 2: Plan Overview

The Regional Transportation Plan Framework (RTP Framework) is the first phase in developing a Regional Transportation Plan (RTP). The RTP Framework and subsequent RTP will establish a vision for the Albany Area transportation system over a 20-year period. The RTP Framework builds upon policy direction and priorities identified in local planning documents to guide the development and management of the regional transportation system.

To develop a 20-year vision for the multi-modal regional transportation system, information was gathered about what exists today, what the projected transportation demands are through 2040, and where the gaps are to address both current and future demand. This information was provided in a series of technical memoranda that correspond closely with the chapters within this document and are referenced throughout.

Regulatory Framework

All MPOs are required to develop a Regional Transportation Plan that identifies transportation system needs and projects for implementation over a 20-year period using Federal, State and local funds (23 CFR 450). Oregon's Transportation Planning Rule (TPR), also directs MPOs to prepare Regional Transportation System Plans (RTSPs) which place a greater emphasis on coordination with land use planning. The RTP Framework is the first phase in developing a state and federally compliant plan, and will primarily adhere to Federal requirements.

Federal guidance states that an MPO's Regional Transportation Plan must:

1. Be consistent with federal transportation policies.
2. Consider a minimum 20-year forecast period.
3. Identify transportation facilities (including major roadways; transit, multimodal and intermodal facilities; and intermodal connectors) that function as an integrated metropolitan transportation system.
4. Emphasize facilities that serve important national and regional transportation functions.
5. Discuss potential environmental mitigation activities (and potential areas to carry them out), including activities with the greatest potential to restore and maintain the environmental functions affected by the plan.
6. Incorporate a financial plan that: (i) demonstrates how the plan can be implemented, (ii) indicates resources from public and private sources that are reasonably expected to be made available to carry out the plan, and (iii) recommends any additional financing strategies for needed projects and programs.

7. Incorporate operational and management strategies to improve the performance of existing transportation facilities to relieve vehicular congestion and maximize the safety and mobility of people and goods.
8. Incorporate investment and other strategies to preserve the existing and projected future metropolitan transportation infrastructure and provide for multimodal capacity increases based on regional priorities and needs.
9. Incorporate transportation and transit enhancement activities.
10. Incorporate performance measures and targets and a report on system performance and condition^{vi}.

The planning process should also consider following Eight Planning Factors:

1. Support economic vitality
2. Increase transportation safety for motorized and non-motorized users
3. Increase transportation security for motorized and non-motorized users
4. Increase accessibility and mobility of people and freight
5. Protect and enhance the environment, promote energy conservation, improve quality of life, and promote consistency between transportation improvements and state and local planned growth and economic development patterns
6. Enhance the integration and connectivity of the transportation system across and between modes for both people and freight
7. Promote efficient system management and operation
8. Emphasize preservation of the existing transportation system

The Planning Process

The RTP will be developed in two phases. In the first phase, the MPO will develop an RTP Framework which will meet federal requirements and identify a constrained 20-year project list. In the second phase, the MPO will use ODOT's least-cost as planning tool, *Mosaic*, to help refine regional priorities and develop the illustrative project list. During the second phase, the MPO will also identify strategies to comply with Oregon Transportation Planning Rule (TPR) requirements and complete a Transit Development Plan (TDP).

The RTP Framework and any other MPO planning documents must be formally approved by the MPO Policy Board; MPO member jurisdictions are not individually required to adopt the plans. In the second phase, however, MPO member jurisdictions will be asked to review the RTP and to either a) make a finding of consistency with their local land use and transportation plans; or, b) adopt amendments to those local plans in order to establish consistency.

Public Involvement

Community involvement is an important part of the metropolitan transportation planning process. A summary of public comments received through March 16, 2016 is included in the posted *Summary of Public Comments*. Community involvement and stakeholder outreach activities during the development of the Regional Transportation Plan included the following:

Direct outreach

AAMPO staff conducted direct outreach to several community organizations representing or working with transportation disadvantaged groups. These include seniors, individuals with disabilities, minority groups, youth, and low income families.

Stakeholder Interviews

Stakeholder Interviews were conducted with individuals who either represent, advocate for, or work directly with transportation stakeholder groups identified in the AAMPO RTP Public Involvement Strategy. Stakeholder groups include: pedestrians, bicyclists, economic development, freight, low income, youth, communities of color, seniors, individuals with disabilities, environmental advocates, and public safety.

Transportation Survey

A survey was conducted to gather information about how transportation is working in the area and to specifically seek input on how AAMPO residents use modes other than the passenger vehicle. The survey was available in Spanish, English, in hard-copy and online. It was distributed to the AAMPO Interested Parties list, to local community groups, and through direct outreach to a high-school class, the Greater Albany School District Welcome Center, and at a local grocery store.

Public meetings

A public meeting series was held in January 2016 to gather community input on draft goals statements and findings related to existing conditions and future transportation needs. Meetings were hosted in five locations at both day and evening times. An Online Open House was also hosted. A public meeting was also held in March 2016 prior to adoption of the RTP Framework. Additional public meetings will be held during the second phase of the planning process.

Ongoing Involvement Opportunities

Stakeholders and members of the public were able to directly contact AAMPO staff throughout the planning process, and provide input in-person, via email or by telephone. Public comment periods were also provided at all AAMPO meetings.

Plan Update and Amendment Process

At a minimum, the RTP must be reviewed and updated every five years. The RTP Framework will be updated in 2017, with the completion and adoption of the full RTP. In general, plan

updates give AAMPO the opportunity to review data, assumptions, and priorities in the plan and to make modifications or updates to ensure continued accuracy and relevance of the document. Amendments to the plan can be made between the five-year updates, although major amendment, such as the addition of a large project, may require a financial-constraint determination.

Existing Plans and Regulations

Existing land use plans, transportation plans, and other regulatory documents providing guidance within the AAMPO area were reviewed in order to establish a context and foundation for the RTP. Forty-one documents were reviewed to identify existing transportation goals, policies, and objectives; highlight key criteria and standards; and, flag any gaps to be addressed through the RTP planning process.

Key themes that emerged from the document review include:

- Balancing financial resources with community livability and economic vitality
- Providing for the safe, convenient and efficient movement of people and goods
- Facilitating the flow of goods and services so as to strengthen the regional economy
- Using available resources effectively and responsibly
- Maintaining and preserving the existing transportation system
- Providing sufficient transportation capacity
- Improving safety
- Promoting transportation options
- Ensuring mobility for all citizens, and specifically the transportation disadvantaged

Gaps that were identified include:

- Numerous plans reviewed are currently undergoing updates.
- Federal Regulatory Changes resulting from MAP-21 and the FAST Act
- Numerous updates made to the State of Oregon guidance for transportation planning
- State of Oregon Transportation Planning Rule requirements associated with the MPO

Chapter 3: Goals, Policies, and Objectives

The RTP Framework goals and policies provide a foundation for transportation plans, projects and programs completed within the MPO planning area. Each goal and policy was developed by the MPO in concert with local plans, and Transportation System Plans in particular.

This chapter contains a hierarchy of four planning elements:

- **Goals:** Broad statements about the region's desired outcomes. A goal is an aspirational statement identifying a principal that will influence how decisions are made about transportation investments.
- **Policies:** Statements describing the approach that the MPO will use to guide the region toward each goal.
- **Potential actions:** Projects or regulatory measures that may be implemented to achieve the identified goals.
- **Objectives:** Measureable outcomes that indicates if a policy is achieved. These objectives also address the performance-based planning requirements established in MAP-21.

Goal I

Provide for a balanced and multi-modal regional transportation system that meets existing needs and prepares for future needs.

Policies

- 1.1. Improve the accessibility, connectivity, efficiency and viability of the transportation system for all users
- 1.2. Maximize efficiency of existing regional roadway system
- 1.3. Maintain acceptable roadway and intersection operations
- 1.4. Protect the ability of major arterials to serve regional traffic while maintaining local connectivity to community activity centers
- 1.5. Preserve and protect transportation corridors essential to regional economic vitality
- 1.6. Ensure that the benefits and impacts of the transportation system are socially equitable
- 1.7. Support improvements to the passenger rail system which demonstrate positive community impacts
- 1.8. Define priorities and incremental steps needed for investment of ODOT and Federal revenues to address safety and major capacity problems on the State and Interstate transportation system serving the AAMPO planning area
- 1.9. Maintain the condition of the highway system infrastructure
- 1.10. Plan for transportation improvements that are needed to support future growth and transportation system needs
- 1.11. Provide a transportation system that serves a balance of transportation modes

Potential Action

- Add roadways, as identified in adopted plans, to increase regional connectivity
- Upgrade intersection capacity to meet future demand
- Implement or promote transportation options to meet future demand
- Provide wayside information dissemination on key regional routes
- Add video surveillance to improve incident detection and verification
- As transportation facilities are developed, incorporate design standards, landscaping and other amenities to encourage walking and bicycling opportunities

Objectives

- Reduce regional corridor travel times
- Reduce hours of congestion
- Reduce user travel costs
- Increase walking, bicycling and transit mode shares
- Increase travel reliability
- Increase transit frequency and reliability
- Reduce Vehicle Miles Traveled (VMT) per capita
- Maintain the transportation system in a state of good repair

Goal 2

Enhance regional and intermodal connectivity for movement of all modes within the MPO as well as between the MPO and other areas.

Policies

- 2.1. Employ access management strategies to maintain existing highway functionality
- 2.2. Increase transportation options to community activity centers such as schools, parks, employment and shopping areas, and major transit stops
- 2.3. Enhance freight connectivity to industrial centers and freight terminals
- 2.4. Improve regional and local transportation system connectivity for non-motorized travel.

Potential Action

- Fill gaps in bicycling and pedestrian infrastructure on regional corridors
- Enhance pedestrian crossings near community activity centers
- Develop and apply spacing criteria for streets, bikeways and pedestrian access ways

Objectives

- Increase the percentage of the population within a maximum travel time between work and home

- Encourage the location of future industrial job centers near the freight network
- Improve transit frequency and coverage in high employment and dense residential areas
- Increase the total length of regional multi-use paths and bike boulevards
- Increase sidewalk coverage on regional corridors
- Reduce out-of-direction travel

Goal 3

Increase the safety and security for all travel modes on the regional system

Policies

- 3.1. Improve safety on the regional system at locations with existing safety issues
- 3.2. Ensure that consistent security policies are practiced for all regional air, freight, pipeline, and roadway systems to reduce the risk of outside tampering
- 3.3. Coordinate with emergency-response agencies to design and operate a transportation system that supports timely and safe response
- 3.4. Reduce vulnerability of the public, goods movement, and critical transportation infrastructure to crime, emergencies and natural hazards
- 3.5. Improve safety for multimodal system users to enhance comfort and viability of system use for pedestrians and bicyclists

Potential Action

- Select projects designed to improve safety at known accident prone locations
- Consider safety for all users when considering and developing transportation projects
- Work with other agencies to promote traffic safety education and awareness
- Place a higher priority on investments that address safety-related deficiencies at high crash locations
- Place a high priority on investments that address bridge maintenance needs for seismic event resiliency
- Improve system connectivity to enhance emergency response and natural disaster response travel route options
- Use All Roads Transportation Safety (ARTS) program to model system safety needs.
- Identify bridge condition needs

Objectives

- Improve system resiliency for seismic and other natural events
- Reduce total fatal and injury crashes
- Reduce total property damage only accidents
- Reduce emergency response times
- Minimize conflicts along high-volume and high-speed corridors

- Reduce fatalities and injuries to pedestrians and bicyclists.

Goal 4

Protect the natural and built environment

Policies

- 4.1 Maintain acceptable roadway and intersection operations where feasible considering environmental, land use, and topographical factors
- 4.2 Reduce regional roadway environmental impacts by promoting transportation options and/or transportation system management and operations (TSMO) strategies in place of capacity upgrades, wherever feasible
- 4.3 Reduce the regional carbon footprint by reducing stopped delay, trip lengths, and vehicle miles traveled
- 4.4 Increase multi-modal access to public parks and nature reserves to better expose the public to the benefits of environmental stewardship
- 4.5 Reduce single-auto trip dependence

Potential Action

- Implement transit system enhancements designed to shift trips from single-auto to transit
- Reduce environmental impacts through design for proper drainage and treatment
- Improve pollinator habitat by developing Integrated Vegetation Management (IVM) standards for roadside areas

Objectives

- Reduce total air contaminants and toxins created by the regional transportation system
- Reduce total impacts on life cycle CO₂ caused by the transportation system
- Reduce transportation system related risks to the natural, built, and cultural resources

Goal 5

Preserve the mobility of existing freight routes to ensure the efficient movement of goods throughout the region for existing freight movements and future opportunities

Policies

- 5.1. Connect any existing system gaps between different freight modes
- 5.2. Promote efficient freight access to regional and state road, rail, airport and port infrastructure
- 5.3. Use judicious access management regulation to protect existing roadway freight routes
- 5.4. Provide freight system improvements that promote job growth and enhance employment opportunities

Potential Action

- Implement projects designed to enhance the safety of rail crossings
- Ensure projects on regional roadway freight corridors include geometric design considerations for large trucks, including addressing regional pinch-points
- Coordinate with external agencies to address the needs of critical freight connections outside the MPO that are needed to serve uses in the MPO

Objectives

- Increase total number of jobs by enhancing freight mobility
- Reduce transportation costs by industry (business travel and freight)
- Increase in productivity by increasing connectivity
- Increase total value of exports and imports

Goal 6

Demonstrate responsible stewardship of funds and resources.

Policies

- 6.1. Prioritize preservation of the existing system
- 6.2. Confirm that all funded projects meet high priority regional system needs
- 6.3. Maximize the cost effectiveness of transportation improvements
- 6.4. Encourage public/private partnerships
- 6.5. Leverage access to federal funding for large-scale regional transportation projects.
- 6.6. Support interjurisdictional coordination to improve project delivery and leverage funding opportunities
- 6.7. Encourage coordination and partnerships among public agencies within the MPO that promotes opportunities for additional external funding for the region
- 6.8. Seek opportunities for additional funding sources

Potential Action

- Develop a fiscally constrained project list designed to meet the most critical transportation needs within the region
- Apply for federal grants for major regional projects
- Consider alternative methods to supplement road maintenance funding, such as local gas tax

Objectives

- Minimize capital costs when possible
- Reduce system lifecycle costs through advance planning and
- Increase total transportation revenue
- Increase the share of lifecycle funds that are new or recycled

- Minimize the net impact on state and regional fiscal balance
- Retain funding allocations for maintaining the existing transportation system (such as pavement and bridge improvement projects)

Goal 7

Coordinate transportation and land use decision-making to foster collaboration and to encourage development patterns which increase transportation options, encourage physical activity, and decrease reliance on the automobile.

Policies

- 7.1. Work towards consistency among local and regional transportation and land use policies
- 7.2. Use transportation investments to foster compact and mixed-use employment and residential land development within the region consistent with local agencies vision of a balanced land use pattern
- 7.3. Assess regional travel impacts of all major land use decisions
- 7.4. Encourage region wide jobs and population growth while protecting character and connectivity of local communities
- 7.5. Encourage integration of bicycle and pedestrian facilities into site designs for community activity centers such as schools, parks, employment and shopping areas, and major transit stops to promote safe and efficient access to and through the site
- 7.6. Parking space requirements integrate land use and transportation options.

Potential Action

- Encourage incorporation of mixed employment and housing land use policies into Urban Growth Boundary updates
- Review minimum and maximum parking requirements
- Assess site plan review and traffic impact study requirements for on-site pedestrian and bicycle facilities

Objectives

- Achieve balanced growth in housing and employment
- Support population and employment density in city and neighborhood centers as defined in local Comprehensive Plans
- Increase relative land values
- Provide opportunities for rural locations that have less commercial options

Goal 8

Provide for a transportation system with positive personal health impacts.

Policies

- 8.1. Identify and support beneficial public health impacts when planning and funding transportation projects
- 8.2. Support physical activity by maintaining existing recreational corridors and increasing recreational connectivity where feasible through opportunities including parks, open space, and greenways
- 8.3. Support active transportation options
- 8.4. Ensure that the transportation system provides adequate access to health services and resources
- 8.5. Reduce conflicts between transportation modes to create a transportation system that is safe and comfortable to navigate

Potential Action

- Increase multi-use path connections to parks
- Promote coordination among public transportation providers to improve efficiencies of service delivery
- Support Safe Routes to School programming

Objectives

- Improve health and wellness of the general population by increasing active transportation choices and access to care facilities
- Increase the quality of the travel environment
- Reduce transportation related noise impacts

Goal 9

Provide for a diversified transportation system that ensures mobility for all.

Policies

- 9.1. Provide greater transportation options for those who are transportation disadvantaged
- 9.2. Ensure that those who are transportation disadvantaged have full access to the regional active transportation system
- 9.3. Maintain and improve accessibility of the public transportation system
- 9.4. Improve accessibility of transportation facilities servicing community activity centers such as schools, parks, health care services, employment and shopping areas
- 9.5. Provide redundant transportation options so that users do not become reliant on a single mode of travel

Potential Action

- Develop projects to increase transit service to low income neighborhoods
- Consider demand responsive transit service options

Objectives

- Distribute transportation system user benefits evenly across all population groups
- Reduce total particulate matter emissions evenly across all population groups
- Distribute health benefits of active transportation across all population groups

Goal 10

Provide an open and balanced process for planning and developing the transportation system.

Policies

- 10.1. Foster a dialog and coordination between city, county and state entities within the MPO and regional partners including other Metropolitan Planning Organizations (MPOs) and Area Commissions on Transportation (ACTs).
- 10.2. Ensure that all affected jurisdictions have a say in major regional transportation decisions
- 10.3. Conduct outreach consistent with the AAMPO Public Participation Plan to acquire input in the planning process
- 10.4. Decisions will be consistent with applicable state and federal regulations

Potential Action

- Include regional participation in local planning projects by requiring notifications to potentially affected agencies in capital project or development review processes
- Create a process for on-going updates to local agency transportation system plans and the RTP to ensure consistency as plans are amended and to capture future opportunities

Objectives

- Provide guidance to enable local jurisdictions to create adopt goals and projects in concert with the overall regional goals and policies
- Foster plan support through transparent process.

Chapter 4: Existing Transportation System

The existing regional transportation system was assessed to identify current deficiencies and needs and to help identify needs through 2040. Each component of the multimodal system was reviewed: roadways, public transportation, pedestrian facilities, bicycle facilities, rail freight, air travel, waterways, intelligent transportation system infrastructure, transportation demand management, pipelines, and other transport facilities as applicable.

The full assessment of existing transportation system is available in *Technical Memoranda #4 Existing Transportation Conditions* and *#5 Existing Transit Conditions*. *Technical Memorandum #6 Environmental Considerations* includes a review of environmental, cultural and historical resources in the MPO area that may be impacted by the transportation system, and is included as a companion document.

Roadways

Regionally significant roadways, identified as all arterials and collectors, within the AAMPO area were inventoried. Roadway characteristics, traffic operations, traffic safety considerations, and freight routes were reviewed to help identify current roadway conditions and deficiencies.

Roadway Characteristics

There are six urban roadway classifications within the AAMPO area: freeway, principal arterial, minor arterial, major collector, minor collector, and local. One freeway and four primary arterials provide connections within and to areas outside of the MPO: I-5 and OR 99E travel north/south while OR 34, US 20 and OR 164 travel east/west. Minor arterials and collectors throughout the MPO allow for more access and circulation within the MPO and also create connections to regional destinations, I-5, and other arterial roadways. These roadways are illustrated in Figure 2.

Speed limits for regional roadways in the MPO area range from 25 to 55 miles per hour (mph), with posted speeds typically decreasing to 25 to 45 mph within city limits and increasing to 55 mph between cities. A majority of AAMPO's regional roadways have two to three travel lanes, although portions of OR 99E and OR 34 have a cross section of five travel lanes^{vii}. AAMPO area speed limits are illustrated in Figure 3.

There are 135 bridges, both roadway and railroad, identified in the 2014 National Bridge Inventory within the MPO area. According to the 2015 ODOT Bridge Condition Report, there is one 'posted' bridge in on Highway 164 as it crosses the Santiam River into Jefferson^{viii}. There are six functionally obsolete bridges: I-5 at the Viewcrest Interchange in Millersburg, I-5 at the Knox Butte Interchange in Albany, 99E at Waverly Lake in Albany, Highway 20 / 99E at the rail overpass in Albany, the Lyons Bridge over the Willamette River in Albany, and the Ellsworth

Bridge over the Willamette River in Albany. The Ellsworth Bridge is also a freight ‘pinch point’ due to vertical clearance issues, further described below. A ‘functionally obsolete’ classification indicates that the bridge was built to standards that do not meet current federal minimum clearance requirements. ‘Posted’ bridges have insufficient load capacity for heavy vehicles.

Traffic Operations

The efficiency of traffic operations is traditionally judged by the mobility of vehicles along roadway corridors and specifically at intersections. Level of service and v/c ratios are two commonly used performance measures that provide a gauge of intersection operations. Level of service is a “report card” rating (A through F) based on the average delay experienced by vehicles at the intersection. A v/c ratio is a decimal representation of the volume to capacity ratio of an intersection; a lower ratio indicates smooth operations and minimal delays. As the ratio approaches 1.00, congestion increases and performance is reduced.

Intersection turn movement counts for 15 study intersections were conducted during the p.m. peak period in May 2015. In addition, traffic operations results for 13 study intersections analyzed in the City of Albany Transportation System Plan^{ix} were included to complete the regional analysis. These intersections are shown in Figure 3. Operations at these 28 key intersections were analyzed based on the 2000 Highway Capacity Manual^x for signalized intersections and 2010 Highway Capacity Manual for unsignalized intersections. Of the 28 study intersections, there are two unsignalized intersections under ODOT jurisdiction that currently do not meet OHP mobility targets - Century Drive & I-5 NB Off Ramp/Knox Butte Road and Scenic Drive/US 20.^{xi}

Truck Freight

There are two designated state and federal freight routes within the AAMPO area: OR 34 and I-5. OR 99E and US 20 also play key role in moving freight both through and within the MPO area. Table 1 summarizes the most recent truck freight volumes based on data collected at permanent ODOT Automatic Traffic Recorder (ATR) stations.

Table 1: Existing Truck Volumes on Freight Routes within the AAMPO Area (2013)

Route	Automatic Traffic Recorder Location	2013 Average Daily Traffic ^{xii}	Truck ADT	Truck % ^{xiii}
Interstate 5	0.41 mile north of Albany Junction City Highway	59,400	12,890	21.7%
Oregon 34	0.89 mile east of Riverside Drive	27,100	1,978	7.3%
US 20/Oregon 99E	0.28 mile northeast of Albany-Corvallis Highway	35,500	1,456	4.1%

Source: Albany Area Regional Transportation Plan Technical Memorandum #4: Existing Conditions, DKS Associates

Counts at 28 key intersection show between 0-16% of daily traffic going through the intersection to be heavy vehicles. Nine intersections had at least one approach with more than 5% of heavy vehicles. Intersections with the highest heavy-vehicle counts were:

- Century Drive/I-5 NB Ramps and Scrael Hill Road/US 20
- Century Drive/Knox Butte Road and Three Lakes Road/Seven Mile Lane
- South Jefferson I-5/OR 164 interchange
- Scrael Hill Road/OR 164
- Old Salem Road/I-5 SB Ramps
- Scrael Hill Road/Knox Butte Road.

Six freight ‘pinch points’ have been identified within the AAMPO area^{xiv}. Pinch points restrict over-dimension freight loads due to width, length, vertical clearance or weight constraints and can include low overpasses, narrow roadways, sharp curves, weight-restricted bridges and other feature. The Ellsworth Bridge on Highway 20 was identified as a high priority pinch point due to vertical clearance. It is a high priority due to being the only vertical clearance pinch point on a Reduction Review Route (RRR). Oregon law states that freight routes identified as RRRs must not see permanent reductions in vehicle carrying capacity unless for safety of access considerations. The remaining five pinch points were identified along I-5 at the following overpasses: Viewcrest Drive, US20, Grand Prairie, Seven Mile Lane, and Tangent Drive. All are vertical clearance pinch points of low priority due to there being eleven other vertical clearance pinch points within a twenty-four mile stretch.

Regional Roadway Safety

AAMPO Area Crash Data

Crash data for the most recent five years available (2009-2013) on all roadways within the AAMPO area were obtained from ODOT. This data is shown in Figure 4. There were 3,022 reported vehicle crashes within the AAMPO area during the five-year span, yielding an average of over 605 crashes per year. Of the 3,022 vehicle crashes, there were 18 fatalities, 61 incapacitating injuries, 423 non-incapacitating injuries, 961 possible injuries and 1,559 property-damage-only crashes. Four study intersections were found to have relatively high crash rates^{xv}:

- Century Drive / I-5 NB Ramps
- Scrael Hill Road / Knox Butte Road
- Waverly Drive / US 20
- Queen Avenue/ OR 99E

A comparison with ODOT’s State Highway Crash Rate Tables^{xvi} found that there crash rates in the AAMPO area are similar to or less than statewide averages for similar facilities. Additional crash data for the City of Albany was collected and is available, along with additional analysis, in the supporting *Technical Memoranda #4 Existing Transportation Conditions*.

ODOT SPIS

ODOT maintains a Safety Priority Index System (SPIS) to identify sites on state highways with higher crash histories and may benefit from safety improvements. The most recent SPIS list^{xvii} indicates that there are 19 sites within the AAMPO area that rank among the top 10% of SPIS sites. Sites are identified by one-tenth mile sections, so many sites occur along the same highway corridor. The 19 sites located along I-5, US 20, and OR 99E.

ODOT All Roads Transportation Safety Program

The ODOT All Roads Transportation Safety (ARTS) Program identifies hot-spot locations involving fatal and serious injury crashes. There were ten hot spot locations identified within the AAMPO area as shown in Figure 5, some of which are consistent with the high crash locations listed above. Data for fatal and serious injury crashes, key issues, and potential low cost or systemic improvements for each site are described in Table 2.

Table 2: Albany Area MPO Hot-Spot Crash Location Summary

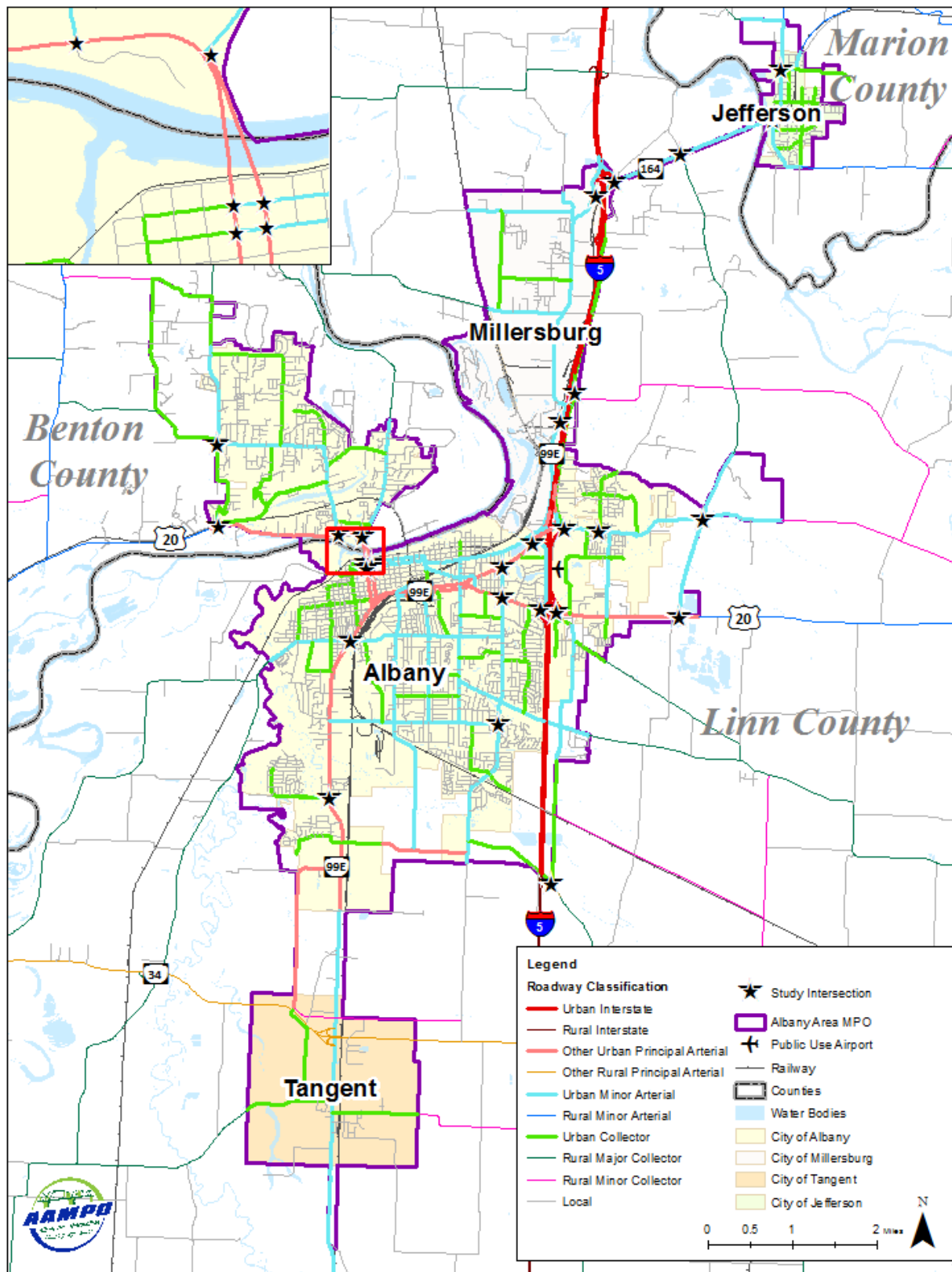
Location	Fatal and Serious Crashes	Total Crashes	Issues
Waverly Drive / US 20	3	75	1. Only one existing luminaire at the intersection. (A fatal pedestrian crash occurred at night) 2. There are a considerable number of access points near the intersection. 3. One-third of the crashes involved pedestrians.
Geary Street / OR 99E	2	77	1. Need to upgrade traffic signal.
Geary Street / US 20	2	50	1. Connection to I-5, OR 99E and US 20
Clay Street / US 20	2	37	1. High number of access points near the intersection along US 20. 2. 41% of crashes involved a turning movement and both serious injury crashes involved a left turning movement.
OR 99E / Albany Avenue & Airport Road	2	36	1. Serious injury crashes involve turning movement and pedestrians. 31% of all crashes involved a turning movement. 2. There are no dedicated left-turn only lanes on the minor approaches. 3. Rear-end crashes account for 44% of all crashes.
Geary Street / Queen Avenue	1	47	1. Bicycle conflict points from each approach. 2. Out-dated traffic signal equipment (five-section "Doghouse").

Source: Albany Area Regional Transportation Plan Technical Memorandum #4: Existing Conditions, DKS Associates

Intelligent Transportation Systems

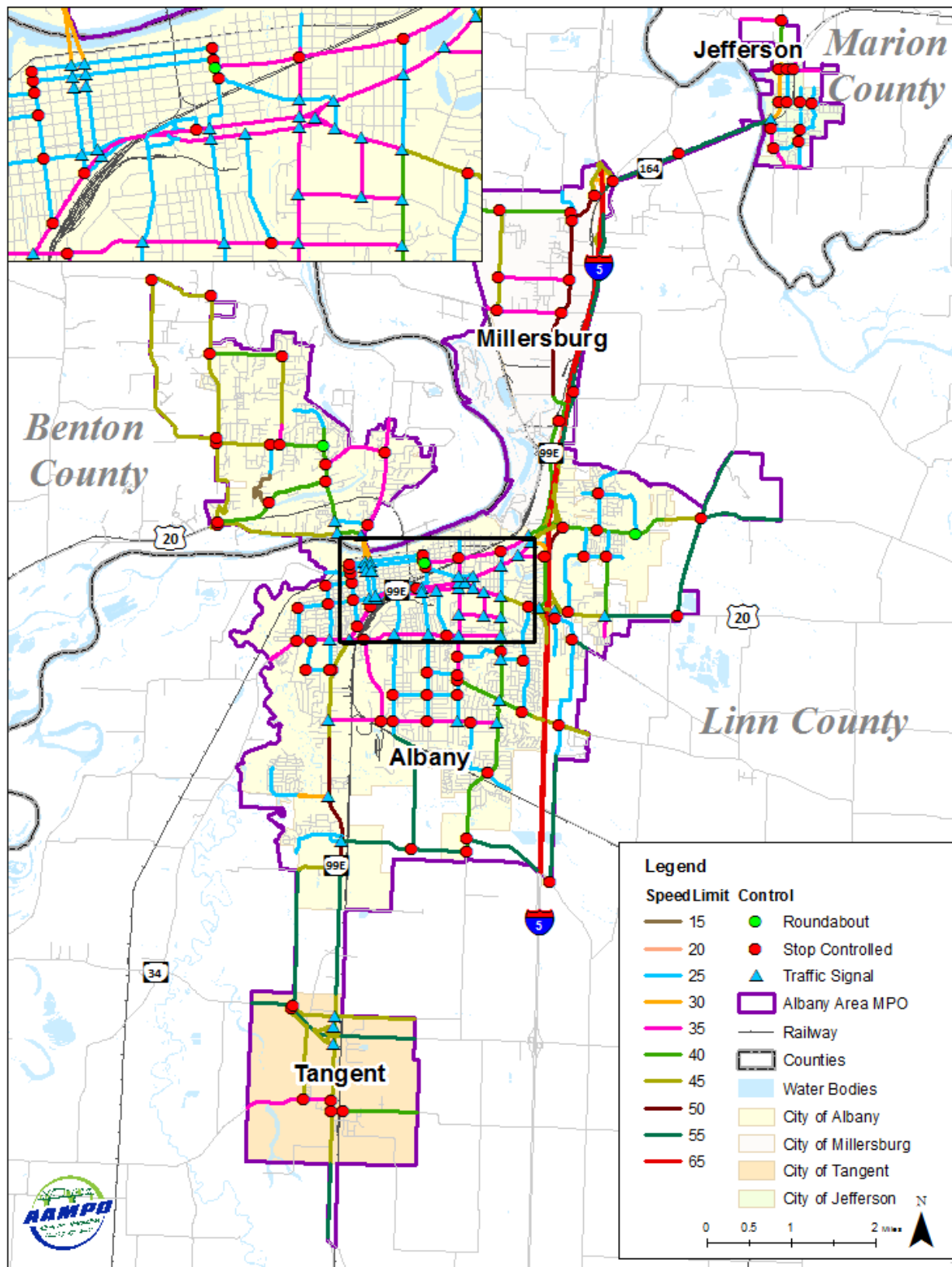
There are few intelligent transportation systems (ITS) within the AAMPO area. There are ITS systems along I-5, including a dynamic message sign for northbound travelers in Millersburg, highway advisory radio in North Albany, and a closed-circuit television camera in Millersburg. Off of the I-5 corridor, a fixed mount camera is located at the intersection of Queen Avenue/Geary Street in an effort to capture traffic infractions at the signal. There are several planned enhancements to the ITS infrastructure within the AAMPO area including additional cameras in Tangent and Albany and a dynamic message sign I-5 (SB) in Millersburg^{xviii}.

Figure 2: AAMPO Roadway Functional Classification



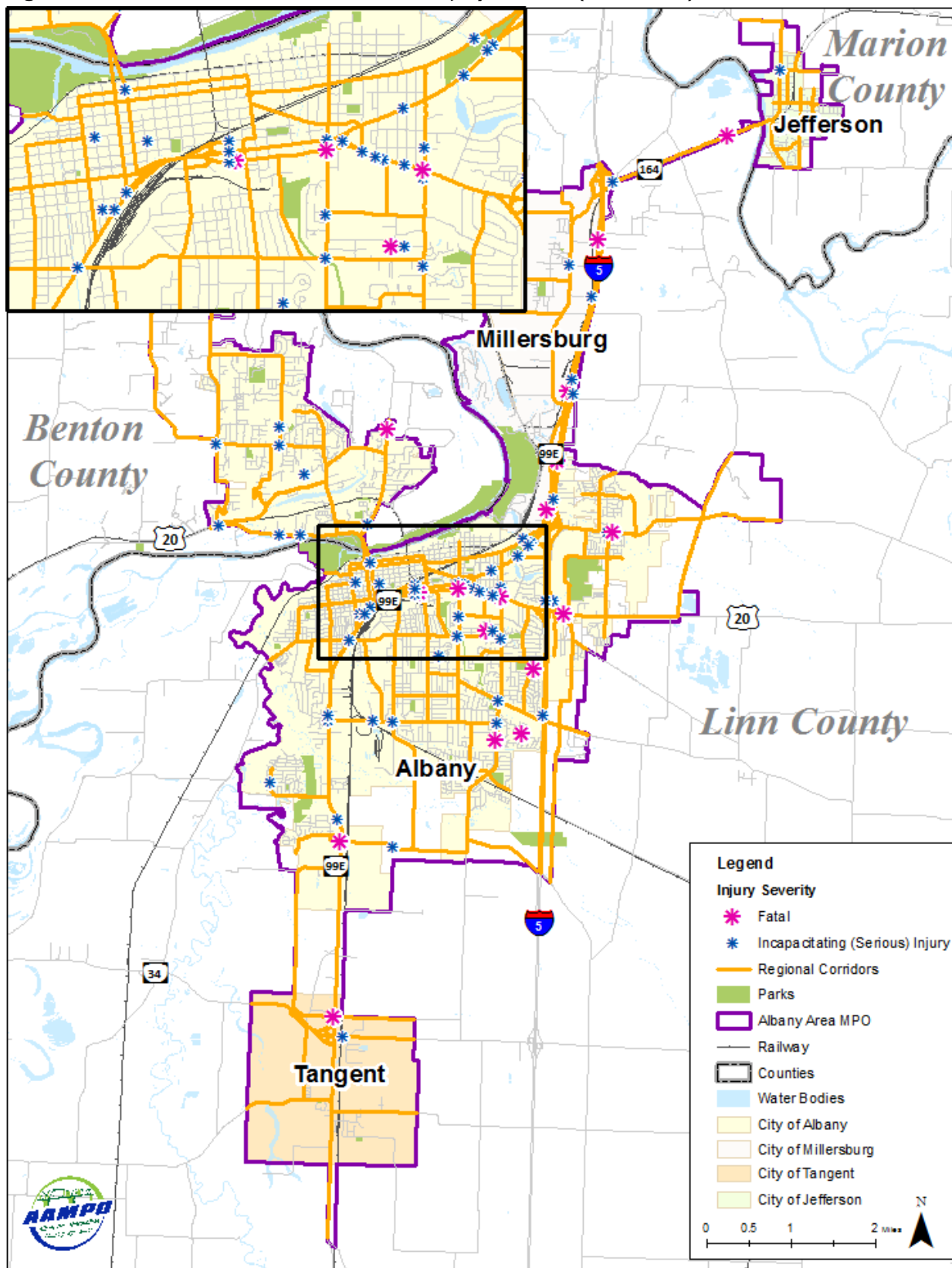
Source: Albany Area Regional Transportation Plan Technical Memorandum #4: Existing Conditions, DKS Associates

Figure 3: AAMPO Study Intersection and Posted Speed Limits



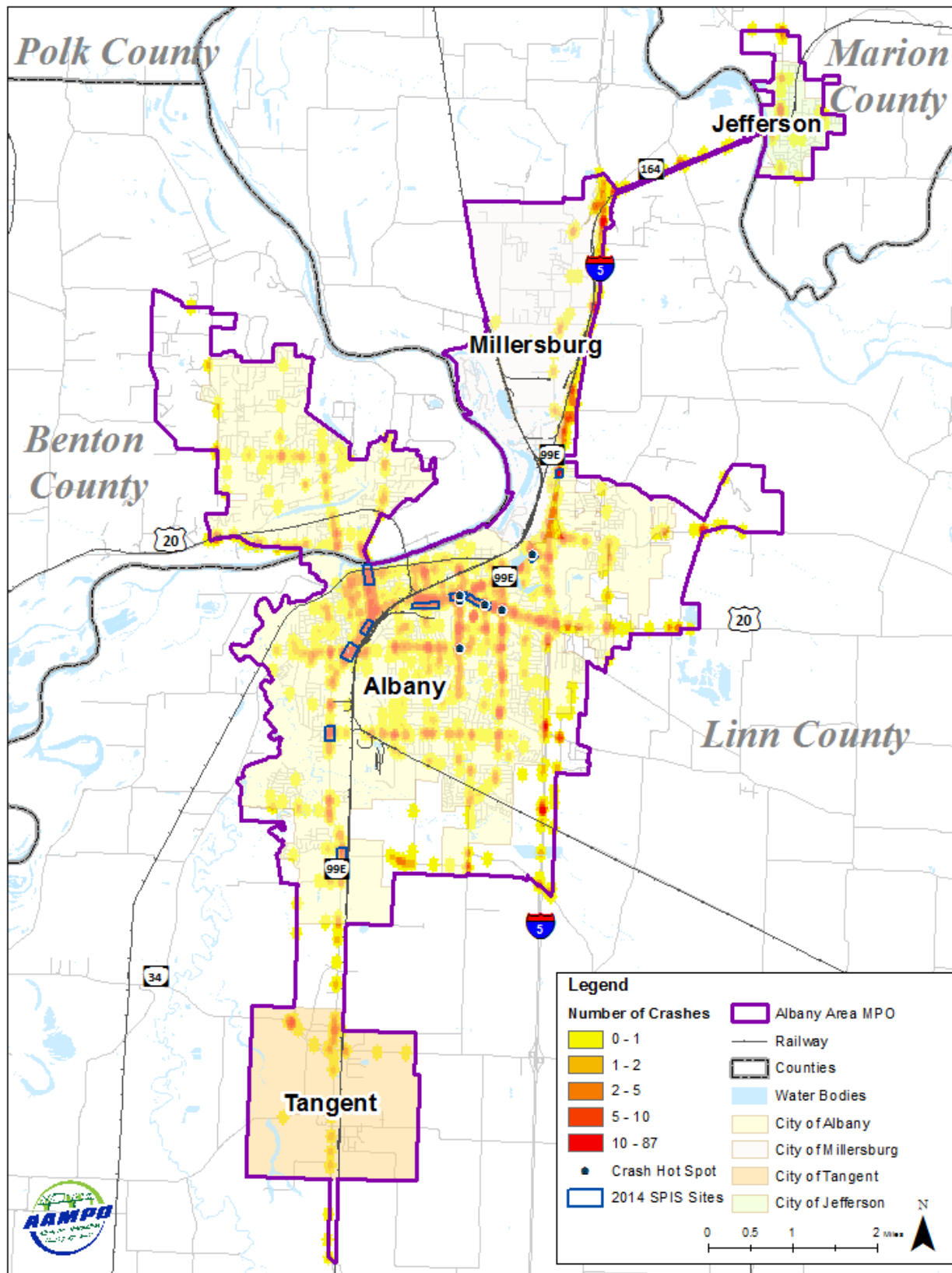
Source: Albany Area Regional Transportation Plan Technical Memorandum #4: Existing Conditions, DKS Associates

Figure 4: AAMPO Vehicle Fatal and Serious Injury Crashes (2009 -2013)



Source: Albany Area Regional Transportation Plan Technical Memorandum #4: Existing Conditions, DKS Associates

Figure 5: AAMPO Vehicle Crashes and Hot-Spots (2009-2013) and 2014 SPIS Sites



Source: Albany Area Regional Transportation Plan Technical Memorandum #4: Existing Conditions, DKS Associates

Public Transportation

The Albany Area MPO is served by a small urban transit system. Several rural and statewide services also provide connectivity within the MPO and to surrounding areas. Below is a brief summary of these and other regional public transportation services in the MPO area. More information is available in *Technical Memorandum #5 Existing Transit Conditions*.

Albany Transit System

The Albany Transit System (ATS) operates four fixed routes, Monday through Friday at 60-minute frequencies. These routes, along with key regional fixed-route services are shown in Figure 6. Route 1 operates throughout most of Albany only the early morning. After 9:00 am, service is provided by Routes 2 and 3. Route 2 operates on Albany's east side, and Route 3 operates service on Albany's west side. The single-ride fare is \$1.00 for adults, and \$0.50 for seniors (60 and older), youth (6-17), and disabled individuals. Children 5 and younger ride free. Free transfers are available. Routes 1, 2, and 3 are confined to the City of Albany.

The fourth fixed route operated by ATS is the Linn-Benton Loop. The 'Loop' operates as an inter-city route connecting Corvallis and Albany. The Loop operates from 6:25 am until 7:00 pm, Monday through Friday, and 8:00 am until 6:00 pm on Saturday. The Loop fare is \$1.50, however free or reduced transfers are available.

The City of Albany also operates Call-A-Ride (CAR), a wheelchair accessible, curb-to-curb transportation for Albany residents 60 years of age and over, and for people of all ages with disabilities who are unable to access fixed route bus service. CAR provides trips within Albany city limits and $\frac{3}{4}$ - mile outside Albany city limits. This service operates Monday through Friday, from 6:30 am to 6:30 pm and on Saturdays from 8:00 am to 6:00 pm. A one-way trip costs \$2.00. Call-A-Ride also serves the City of Millersburg on a contract basis.

Additional Regional Services

Linn Shuttle

The Linn Shuttle provides regional service connecting Albany, the Linn-Benton Community College, Lebanon and Sweet Home. The Linn Shuttle is operated by the Sweet Home Senior and Community Center and operates from 6:25 am until 7:35 pm, Monday through Friday. The service typically runs every three hours, though peak service is every 60 minutes.

Benton County Dial-A-Bus

Benton County provides wheelchair accessible, curb-to-curb transportation for Benton County residents who are older adults 60 years of age and over, and for people of all ages with documented disabilities who are unable to access fixed route bus service. Dial-A-Bus operates

the Corvallis-Albany Connection on Tuesday and Thursday, providing nine one-way runs each day (four round trips). A one-way trip costs \$3.00.

Coast-to-Valley Express

Benton and Lincoln Counties provide four daily round trips between Newport and Corvallis on the Coast-to-Valley Express. Two of these trips serve the Albany Station. Fares range from \$2.00 to \$10.00 depending on age and destination. This service is part of the North by Northwest Connector, an alliance of transit providers providing coordinate services. In addition to Benton County, members of the Connector Alliance include Tillamook County Transportation District, Lincoln County Transit, Columbia County Rider and the Sunset Empire Transportation District.

Valley Retriever

Valley Retriever is a private bus service providing twice-daily service between Newport and Salem with stops in Philomath, Corvallis and Albany. Once a day service is provided through to Portland and Bend. The service operates Sunday through Friday with fares ranging from \$25.00 to \$38.00 depending on destination.

Bolt Bus

The Bolt Bus is a private service which stops in Albany twice a day, Thursday through Monday, enroute to Eugene and Portland. Trips can cost as low as \$1.00 with costs increasing as seats are booked. Average fares are \$6.00 - \$8.00 to Portland or Eugene.

Non-Emergent Medical Transportation

The Cascades West Rideshare and TripLink Call Center provide non-emergent medical transportation to eligible Oregon Health Plan clients in the AAMPO area. These transportation services are limited to trips for covered medical services. Volunteer services such as Volunteer Caregivers provide additional transportation options.

Taxis

Several private taxi companies serve the AAMPO area. Real-time ridesharing companies such as Uber and Lyft do not currently serve the AAMPO area.

Amtrak Passenger Rail

The Albany Station is served by the Amtrak Cascades and the Coast Starlight routes which together provide nine northbound and nine southbound trips each day of the week. The Amtrak Cascades service travels between Eugene, Oregon and Vancouver, British Columbia. The Amtrak Coast Starlight service travels between Seattle, Washington and Los Angeles, California. As part of some of the connections, an Amtrak Cascades Thruway carries passengers in a bus along the I-5 corridor parallel to the regular Amtrak train lines. During Amtrak's 2014 Fiscal Year, approximately 35,100 passengers traveled to or from the Albany Station.

ODOT is currently considering development of higher-speed and more frequent passenger rail service in the I-5 corridor, with the preferred future alignment following the existing alignment

on the Union Pacific Railroad line. This alignment bisects the AAMPO area and runs through all cities within the MPO (heading northbound, first Tangent, then Albany, Millersburg, and Jefferson). This may impact safe railroad crossings, congestion (particularly in the vicinity of the Albany Station and the Queen Avenue crossing), and public health. Additional information about rail infrastructure, services and safety issues is provided in the ‘Rail Freight’ section.

Public Transportation Facilities

The Albany Station is the primary public transportation facility in the MPO area. It is where passengers transfer between routes, where most vehicle trips start and end, and where operators take their break. Intercity and regional services such as Amtrak, Valley Retriever and Linn Shuttle also stop here. In addition to the Albany Station, there are approximately 93 bus stops in Albany, approximately 20 of which have shelters and benches. All stops have signs indicating the routes that serve that stop, but only stops located at a timepoint have additional schedule information for each route. The Linn-Benton Community College has a large shelter with seating protected from the elements.

Rail Freight

There are currently three railroads serving the AAMPO area: Union Pacific (UP), Portland & Western (PNWR), and Albany & Eastern (AERC). Collectively, these rail lines have up to 46 freight trains moving through the MPO each day, including switching trains. The railroad companies serve local industries transporting commodities such as lumber, seed, feed, fertilizer, and frozen food. There are seven grade separated crossing, 33 gated crossings, 20 stop controlled crossings, and six yield controlled crossings in the AAMPO area.

Railroads run through all cities in the AAMPO area, and at grade rail crossings create safety, travel time, and connectivity issues throughout the MPO. Freight and passenger rail travels non-stop and at higher speeds through Tangent, Millersburg, and Jefferson. Rails service often slows in Albany before stopping at the Albany Station. At-grade crossings in Jefferson and Tangent bisect the communities and create unsafe routes to school for school-age children and regular delays for residents.

The City of Albany has numerous at-grade crossings which similarly bisect neighborhoods and commercial areas, creating delays and safety concerns. Primary among these is the Queen Avenue crossing, adjacent to the Albany Rail Yard and Albany Station. This crossing has significant impacts to system reliability and safety, as switching movements create long delays for vehicles, pedestrians, and bicyclists traveling along Queen Avenue to OR99E or Oakville Road / Riverisde Drive. The Albany Rail Yard serves as a crossing point for all UP rail lines in Albany, however limited distance between tracks where UP trains can meet and pass can result in long delays while passing trains await permissions to cross. Additionally, switching trains also

cross Queen Avenue, creating long delays. Several pedestrian and bicycle fatalities have occurred at this location. A recent project attempted to alleviate delays by rehabilitating the Millersburg switching yard and adding a short section of track in Albany to connect the Toledo Branch directly to the Millersburg Yard.

The City of Millersburg sees the least impact, as rail service primarily travels through and serves industrial and commercial areas before heading along OR 164 towards Jefferson. There are two above grade crossings in the Millersburg area which alleviate conflicts with other modes.

North Albany and Benton County see delays and safety concerns primarily at the at-grade crossing at Scenic Drive, directly adjacent to US 20 corridor. Slow-moving or stopped trains can create delays and safety concerns when vehicles back up onto US 20, waiting to turn onto Scenic Drive. While less frequent than at Queen Ave, this line also sees delays due to trains awaiting permission to travel eastward toward the Albany and Millersburg stations.

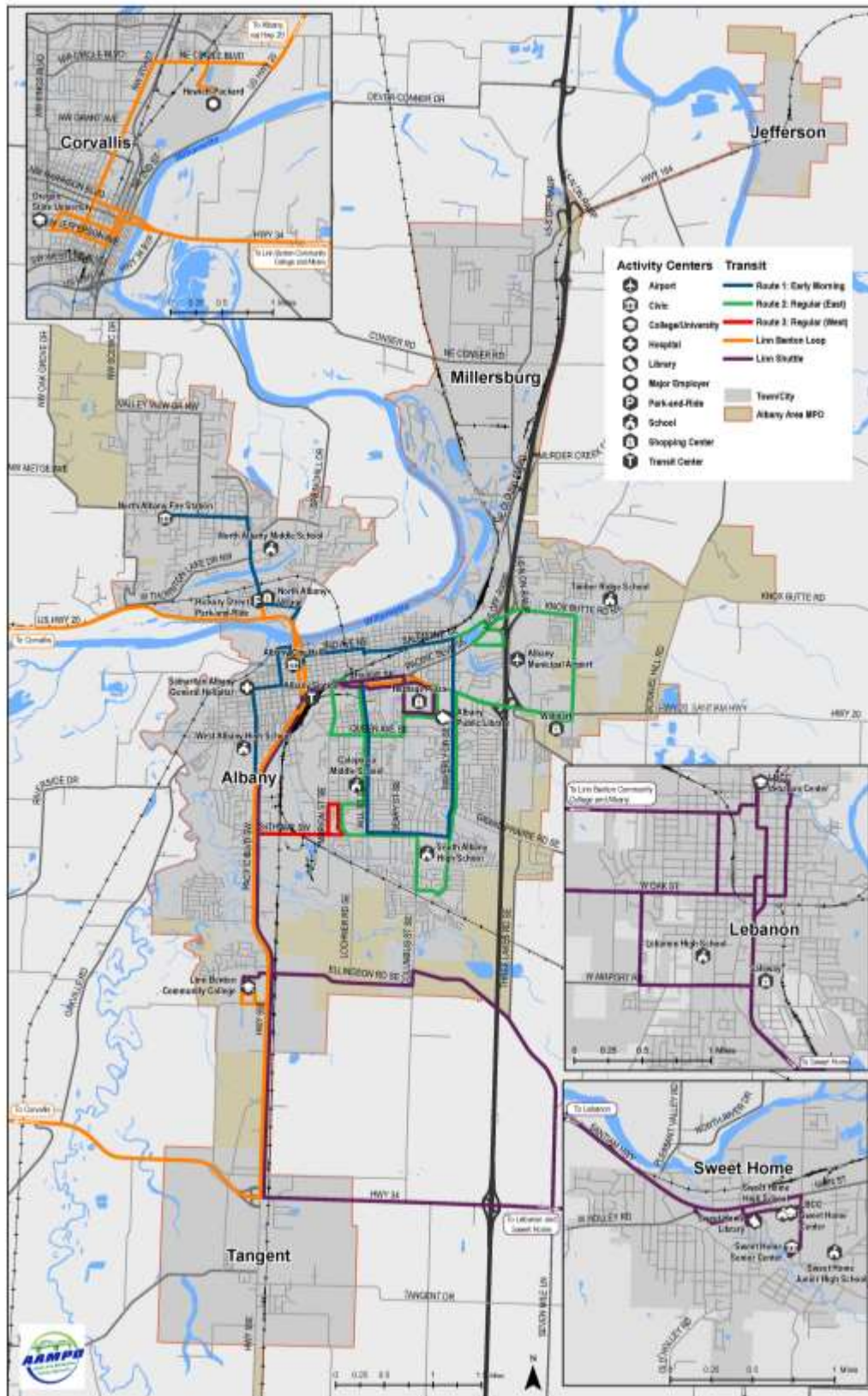
Transportation Demand Management

The Oregon Cascades West Council of Governments (OCWCOG) manages a Transportation Demand Management (TDM) program serving much of the AAMPO area. Through the program, OCWCOG helps employers implement commuter benefit programs, educates the public about transportation options, and advocates for transportation options. OCWCOG staffs Cascades West Rideshare, a regional vanpool and carpooling program for Linn, Lincoln, and Benton Counties. The Salem-Keizer Transit District provides similar services for Jefferson (in Marion County), including staffing the Cherriots Rideshare carpool and vanpool program. Both are part of a regional network which coordinates commuter vanpools throughout the Central Willamette Valley and on the Central Oregon Coast.

Several Park and Rides are located in the MPO area to facilitate carpooling and transferring to other modes. There may be additional sites, or informal sites, that are not accounted for.

- Santiam Highway and Spicer Drive, at I-5 in Albany (30 spots, 2 ADA compliant)
- Hickory Drive in North Albany (40 spots, 2 ADA compliant. 4 bike parking spots. 4 bike lockers. Stop for ATS routes 1 and 3)
- I-5 and Highway 34 junction, east of Tangent (40 spots)
- I-5 & Highway 164 Junction (20 spots)

Figure 6: Fixed Route Transit in the Albany Area



Source: Albany Area Regional Transportation Plan Technical Memorandum #5: Existing Conditions, Nelson\Nygaard

Pedestrian Facilities

Sidewalks, multi-use paths, trails, and crosswalks along regionally significant roadway corridors were assessed for completeness, connectivity, Americans with Disability (ADA) compliance, and safety concerns. A summary of findings is provided below, and the full findings are available in *Technical Memorandum #4 Existing Transportation Conditions*.

Completeness and Connectivity

Pedestrian facilities were reviewed for completeness using ODOT's Multimodal Analysis methodology^{xix}. It was found that nearly 45% of regional roadways have complete sidewalks coverage which includes "Excellent", "Good" and "Fair" ratings, as shown in Figure 7 and Figure 8^{xx}. While Central Albany has adequate pedestrian connectivity, there are considerable pedestrian facility gaps along regional roadways outside of central Albany, including those within and connecting to Millersburg, Jefferson and Tangent.

ADA compliance within the AAMPO area is incomplete. Recently rehabilitated or constructed roadways such as North Albany Road or Oak Street have been designed to meet ADA requirements; however, older areas such as 9th Avenue in Albany have incomplete ADA design features.

Pedestrian Safety

A review of the most recent five years (2009-2013) of ODOT crash data found that there were 56 reported vehicle-pedestrian crashes, as illustrated in Figure 9. A majority of the crashes occurred in Albany along arterial roadways, with one reported crash in each Tangent, Millersburg and Jefferson. 65% of pedestrian related crashes occurred at an intersection or alley and 34% occurred along a straight roadway segment. There were five pedestrian fatalities, with the pedestrian deemed at-fault in four of the fatal crashes mainly for being illegally in the roadway.

Two locations in Albany were identified as high vehicle-pedestrian crash areas: the Ellsworth and Lyons couplet (US 20) in downtown Albany and the Heritage Plaza Shopping Center.

Figure 7: Multimodal Analysis Methodology



Source: Albany Area Regional Transportation Plan Technical Memorandum #4: Existing Conditions, DKS Associates

In addition to crash data, a need for safe routes to school was identified throughout the MPO area. Regional roadways may have unsafe crossings or rail crossings which deem routes unsafe even if they are in close proximity to a school.

Bicycle Facilities

Bicycle facilities, including bicycle lanes, multi-use paths and trails, along regionally significant corridors were reviewed to identify deficient areas and safety concerns. A summary of findings is provided below, and the full findings are available in *Technical Memorandum #4 Existing Transportation Conditions*.

Bicycle Level of Stress

Existing bicycle facilities were evaluated using the ODOT Bicycle Level of Stress Methodology^{xxi}. This methodology uses roadway characteristics such as bike lane width, posted speed limit, and traffic volume to quantify the perceived comfort levels of the average cyclist on a given facility. Perceived comfort is ranked from Level of Stress (LTS) 1 to 4, with LTS 4 representing the highest traffic stress and LTS 1 representing the lowest.

- LTS 1: Separated facilities or shared roadways with low traffic speeds, low traffic volume, one lane in each direction and intersections are easy to cross.
- LTS 2: Has little traffic stress but is more suitable for teens and adults. There are slightly higher traffic speeds and up to three lanes total in both directions.
- LTS 3: Requires more attention due to moderate stress imposed by increased traffic speeds and up to five lanes in both directions.
- LTS 4: Requires experience and skill. There could be high traffic speeds, multi-lane travel ways, complex intersections and high traffic volumes

Similar to pedestrian facilities, bicycle facilities within central Albany have the lowest levels of stress, and those in outlying areas see higher levels of stress. Regional corridors in Tangent, North Albany and Millersburg are characterized by high levels of stress. In Jefferson, there is little traffic stress within residential areas but OR 164 demonstrates a high level of stress due to frequent driveways and higher speeds. Figure 10 illustrates LTS throughout the AAMPO area.

Bicycle Safety

A review of the most recent five years (2009-2013) of ODOT crash data found that there were 73 vehicle-bicycle crashes during that five-year span, as shown in Figure 11. The majority of crashes occurred at intersections or alleyways in Albany, typically involving a crossing or turning movement. Ten crashes resulted in an incapacitating or serious injury, 43 crashes resulted in a non-incapacitating or moderate injury, and 20 crashes resulted in a possible or minor injury.

Three locations in Albany were identified as high vehicle-bicycle crash areas: the Lyons-Ellsworth Couplet, the Heritage Plaza Shopping Center, and Queen Avenue. Many of the crashes in these three locations were attributed to traffic violations such as failure to yield the right-of-way, disregarding a traffic signal, non-motorists illegally in the roadway, or vehicles crossing the centerline.

Air Travel

The AAMPO area has one general aviation airport - Albany Municipal Airport, owned and operated by the City of Albany^{xxii}. The airport consists of 147 acres with a single 3,004 foot runway which is constrained between Knox Butte Road and US 20, alongside I-5^{xxiii}. The runway constraints inhibit passenger air travel. The airport is estimated to house 51 home-based aircraft including 43 single engine, seven multi engine and one jet. The currently sees 23,300 departures and arrivals annually^{xxiv}. The Airport Master Plan defines the needs and direction of future development at the airport.

The Eugene Airport (Mahlon Sweet Field), located 40 miles south of the AAMPO area, helps to serve regional air travel needs. The airport is operated by the City of Eugene and is categorized as a general aviation ‘Non-Hub, Commercial Service, Primary Airport’. Four passenger carriers serve the airport, providing 28 arrivals and 27 departures a day to 10 U.S. cities. The airport supports cargo freight, military aircraft, and other general aviation uses^{xxv}.

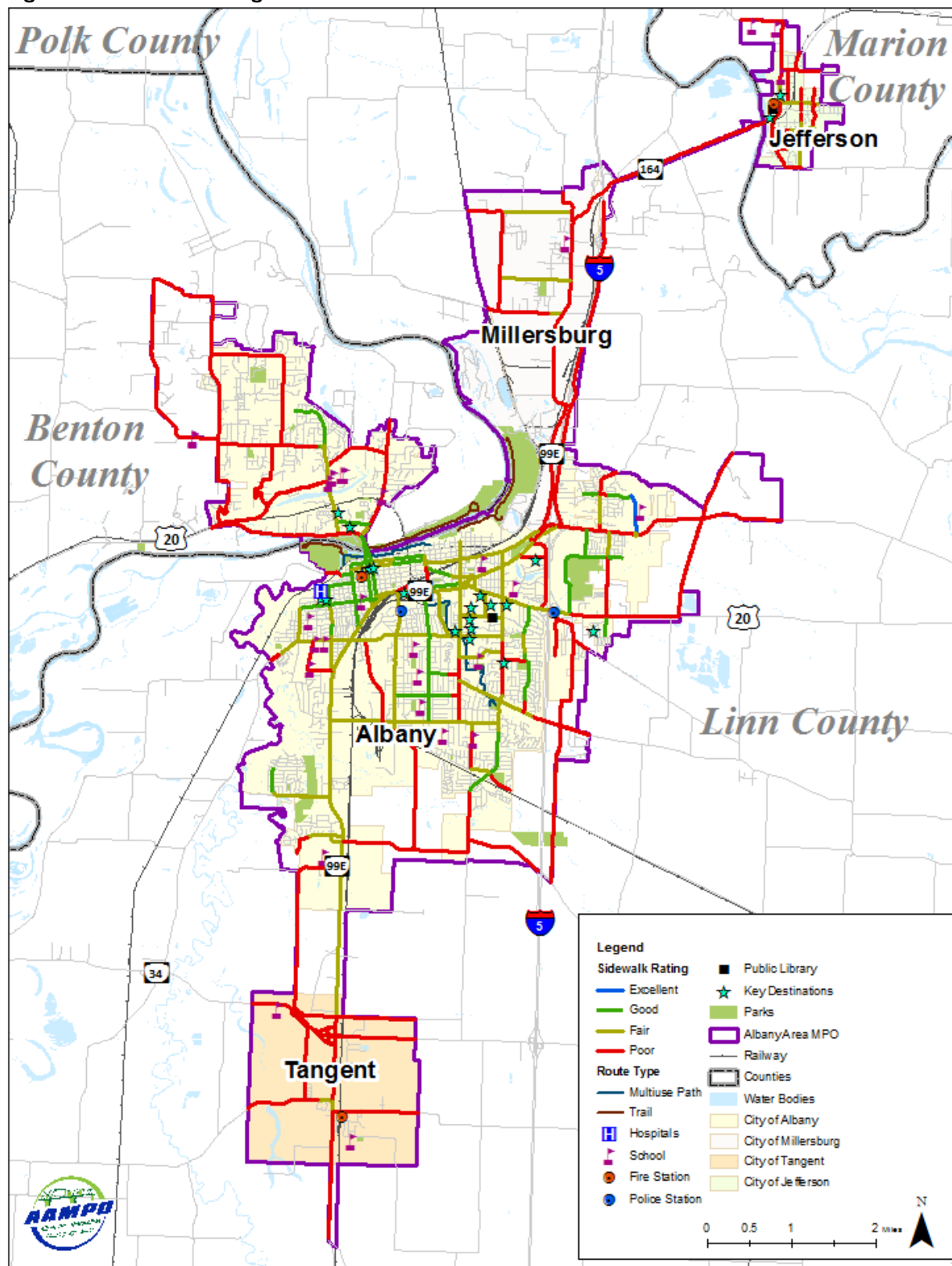
Waterways

Two rivers run through the AAMPO area - the Willamette River runs through Albany and Millersburg and the Santiam River runs through Jefferson. The Willamette River is considered navigable but is not currently used for transporting goods or people and is restricted in height and width due to stationary highway and railroad bridge crossings.

Pipelines

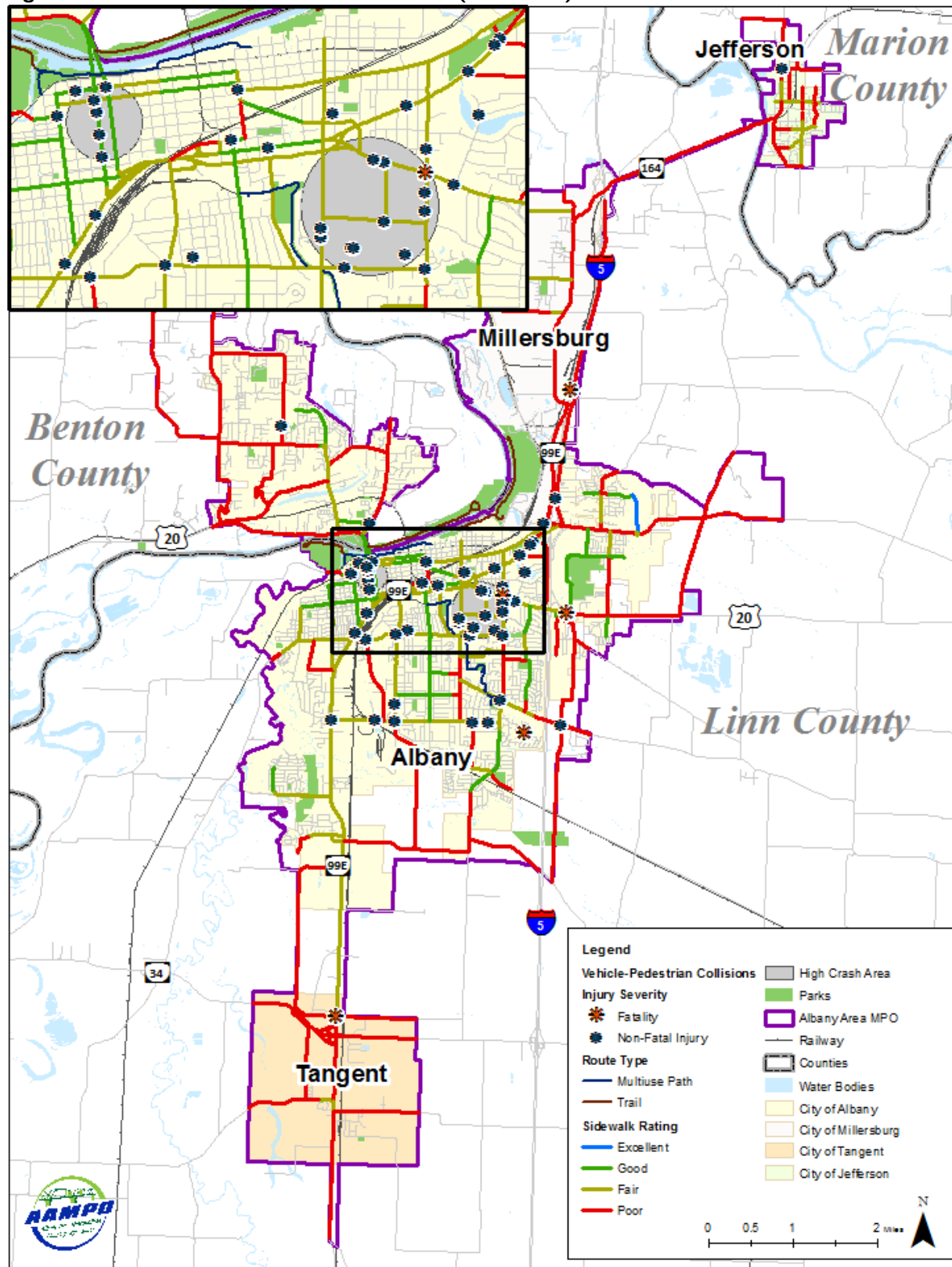
Williams Northwest Pipeline owns a high-pressure natural gas pipeline that runs in the north-south direction along the eastern edge of the AAMPO area. There are several delivery points between Jefferson and Tangent which provide services to Northwest Natural Gas, International Paper Company-Albany, and Oremet-Wah Chang, who in turn distribute their product to the cities with a smaller pipe network. Santa Fe Pacific Pipeline-North owns a major pipeline running through Millersburg and Albany that carries petroleum products that runs along I-5^{xxvi}.

Figure 8: AAMPO Existing Pedestrian Facilities



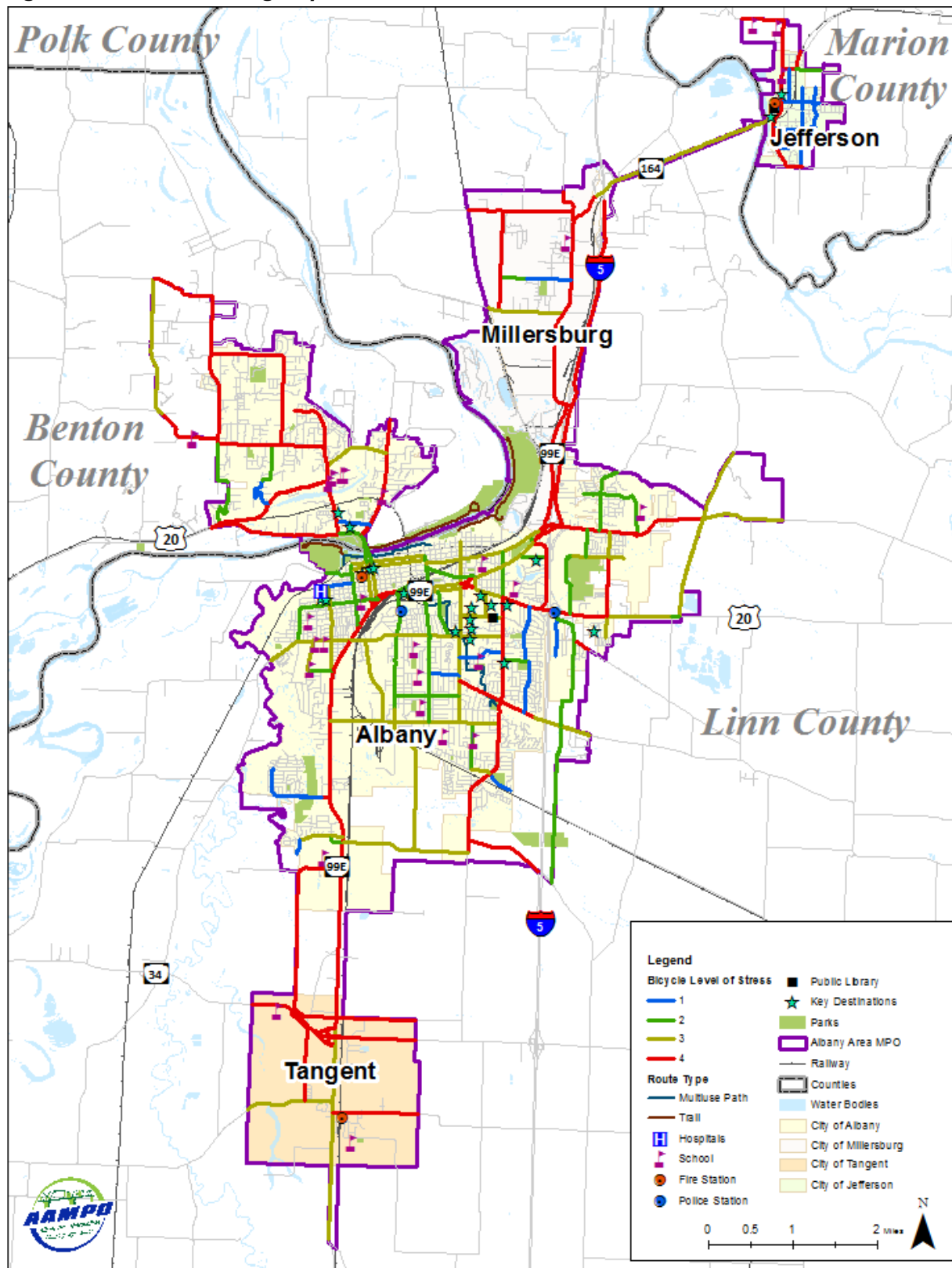
Source: Albany Area Regional Transportation Plan Technical Memorandum #4: Existing Conditions, DKS Associates

Figure 9: AAMPO Vehicle-Pedestrian Crashes (2009-2013)



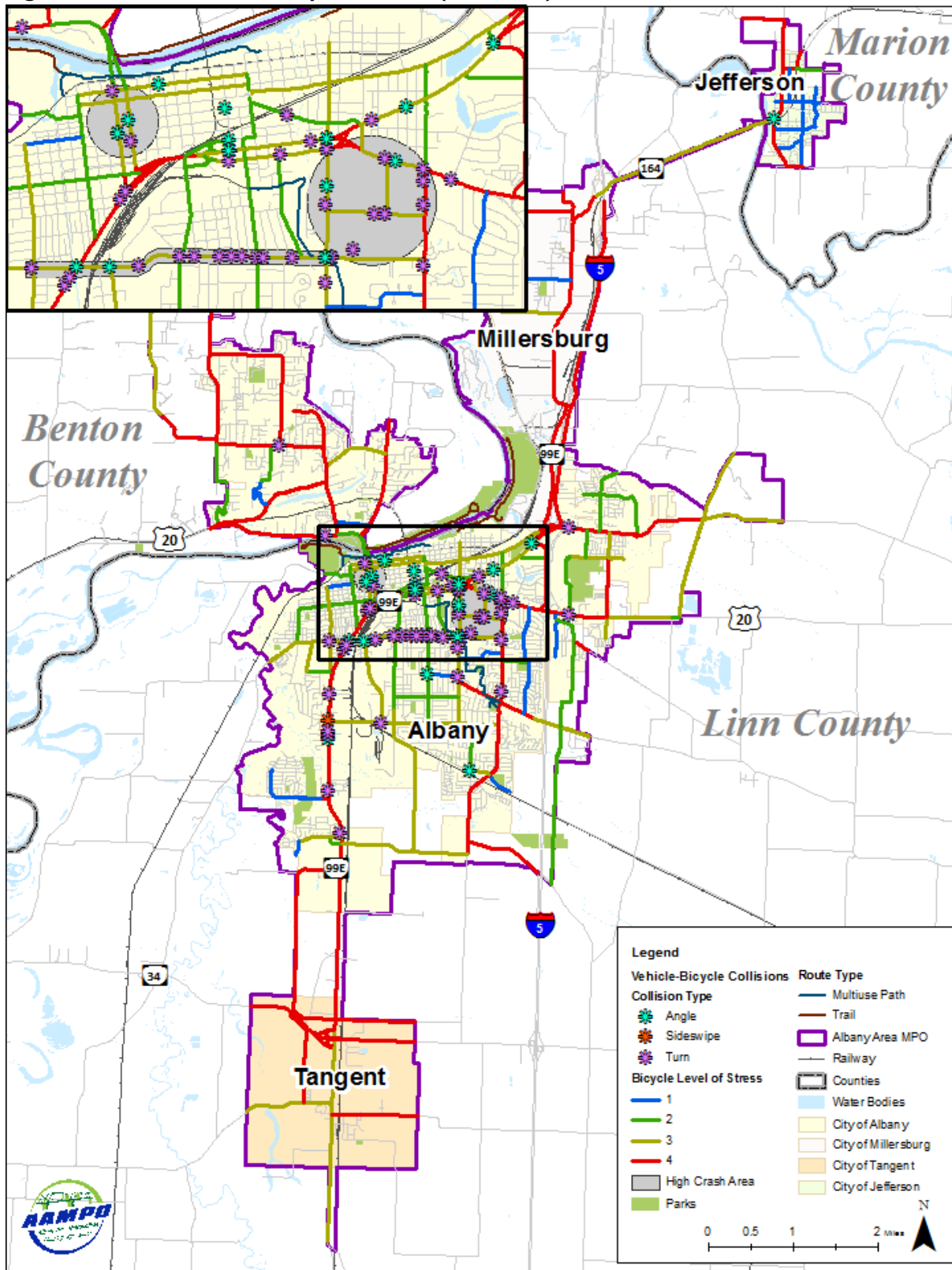
Source: Albany Area Regional Transportation Plan Technical Memorandum #4: Existing Conditions, DKS Associates

Figure 10: AAMPO Existing Bicycle Facilities



Source: Albany Area Regional Transportation Plan Technical Memorandum #4: Existing Conditions, DKS Associates

Figure 11: AAMPO Vehicle-Bicycle Crashes (2009-2013)



Source: Albany Area Regional Transportation Plan Technical Memorandum #4: Existing Conditions, DKS Associates

Chapter 5: Future Forecasting

A regional travel demand model was used to help forecast future transportation system needs through the 2040 planning horizon. The full analysis of is included in *Technical Memorandum #7 Future Forecasting*.

The CALM Travel Demand Model

The *CALM (Corvallis, Albany and Lebanon Model) Regional Travel Demand Model* was developed by ODOT to estimate vehicular and non-vehicular traffic based on existing traffic volumes and land uses, projected land use changes, and travel behaviors and patterns^{xxvii}. The model estimates daily and p.m. peak hour demand for the existing year (2010) and future year (2040) transportation system. Projected land uses were developed for the model area based on general development patterns and the Comprehensive Plan designations for the Cities of Albany, Jefferson, Millersburg and Tangent^{xxviii}.

Growth Projections

Population in the AAMPO area is projected to increase by approximately 30% between 2010 and 2040, and number of households is expected to increase by 40%. Albany, Millersburg, and Tangent each follow a similar trend and are projected to increase in population by 20-30%, while Jefferson's population is projected to increase by about 70%. Unincorporated areas of Benton and Linn Counties may increase by 50% or more. Significant residential growth areas, as shown in Figure 12, include the south end of Jefferson, east of I-5 and north of US 20 in Albany, and the south end of Albany^{xxix}.

Overall, employment is projected to increase by approximately 45%. Albany, Jefferson and Tangent employment will follow this general increase. However, employment is expected to increase by 50% in unincorporated Linn County and by 90% in Millersburg. Employment within unincorporated Benton County will be relatively unchanged. As shown in Figure 13, significant employment growth is anticipated for south Millersburg, south Albany and north Albany. Significant educational growth is anticipated in north Jefferson, around LBCC and Albany east of I-5 and north of US 20. Overall enrollment for primary schools will increase by roughly 30%. College trips are also expected to increase by roughly 30%.

Wider regional population and employment growth patterns and future projections are also an important consideration, as the travelshed continues to become more interconnected.

Forecasted Trip Distribution

The CALM Model was used to estimate the number and types of trips within the MPO using current and projected household attributes such as size, income, and number of workers.

The number of vehicle trips is expected to grow by approximately 30% between 2010 and 2040, generally consistent with the projected population increase, but assuming a slight reduction in the average rate of trips by motor vehicle. Albany and Tangent are both projected to see a 25% increase in motor vehicle travel. Jefferson and Millersburg are projected to see a greater increase of 60%, in part due to their relatively greater increases in population and employment^{xxx}.

Outputs from the CALM travel demand model project 2040 travel patterns to be similar to 2010 patterns. The area to the west of the MPO (including Corvallis) are projected to continue to seeing the highest number of trips by AAMPO residents exiting the AAMPO area. The most significant increases are expected to be seen along the primary regional state facilities: I-5, US 20, OR 99E, and OR 34. Other routes with significant growth include Waverly Drive, Queen Avenue, and North Albany Road.^{xxxi}

Figure 12: CALM Model Household Growth

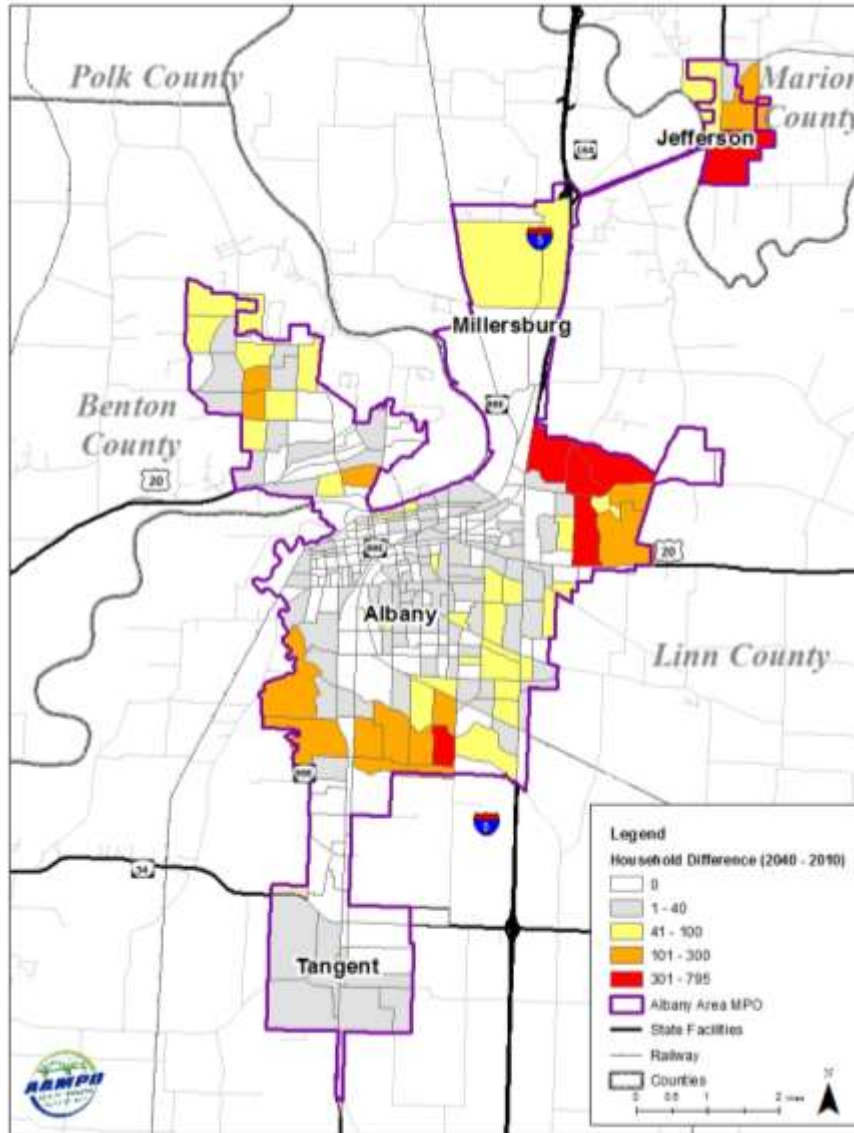
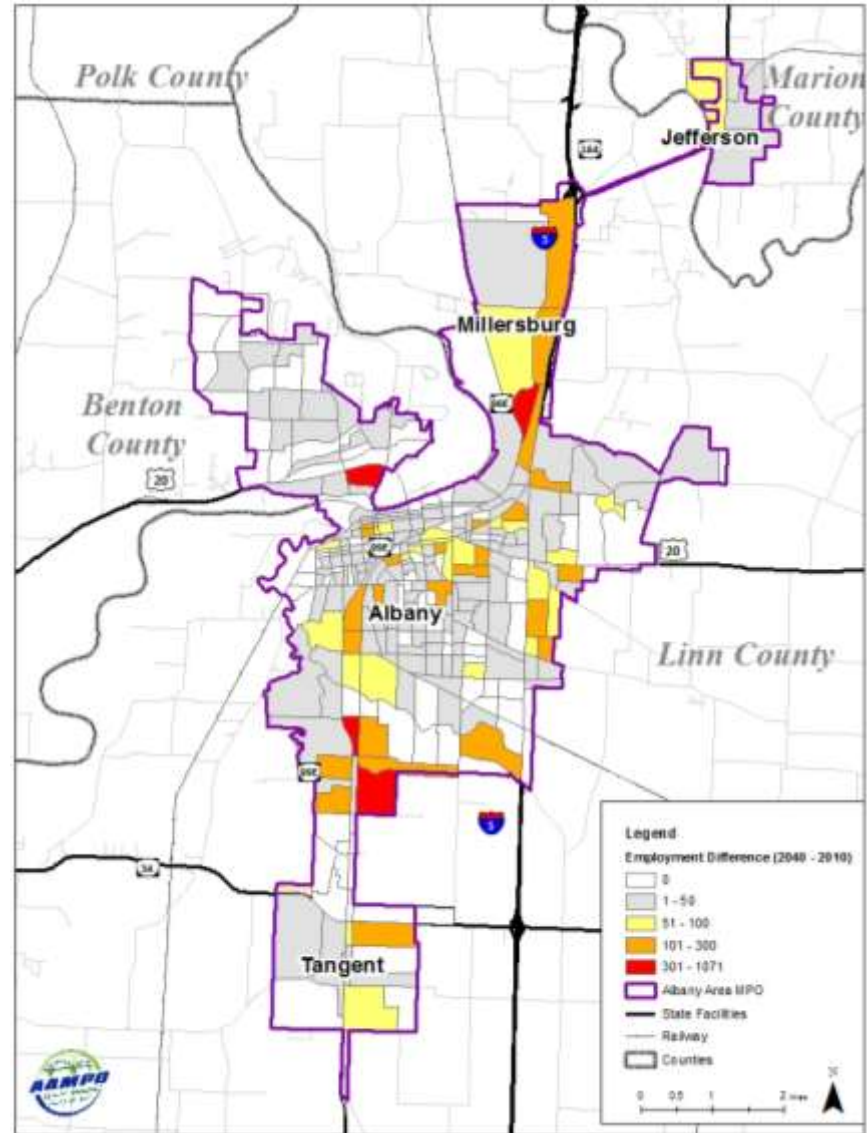


Figure 13: CALM Model Employment Growth



Source: Albany Area Regional Transportation Plan Technical Memorandum #7: Future Forecasting, DKS Associates

Chapter 6: Future Transportation Needs

Findings from the existing condition analyses, travel demand modeling and stakeholder input helped to identify future transportation system needs as outlined below, and in more detail in *Technical Memorandum #8 Future Transportation Conditions and Needs*, *Technical Memorandum #9 Transit Future Conditions*, and the *Summary of Public Comments*.

Regional Roadway System Needs

Intersection Mobility

Two unsignalized intersections currently do not meet Oregon Highway Plan mobility targets: Century Drive & I-5 NB Off Ramp/Knox Butte Road and Scenic Drive/ US 20. An additional nine locations are projected to not meet their 2040 mobility targets during either the daily pm peak or the seasonal peak:

- OR 164 / North Ave
- OR 164 / I-5 NB ramps
- OR 164 / Main St
- Knox Butte Rd / I-5 NB off-ramp
- Knox Butte Rd / Clover Ridge Rd
- US 20 / Scenic Dr
- US 20 / Springhill Dr
- OR 99E / Airport Rd
- US 20 / Waverly Dr
- OR 99E / Queen Ave
- US 20 (Lyons St) / 1st Ave

Regional Capacity Needs

The CALM travel demand model was used to assess the condition of future corridors in the region based on volume-to-capacity (v/c) ratios. Table 3 lists the regional corridors nearing or exceeding capacity by the year 2040. Key findings include:

- Congestion of US 20 between Corvallis and downtown Albany has the potential to impact the alternate regional route of OR 34.
- Congestion on the OR 99E/US 20 couplet could cause additional burden to the local system, with regional traffic re-routing onto parallel local streets to avoid delays.
- With limited alternate routing opportunities, the modeled over-capacity conditions on OR 164 could lead to increases in travel time between Jefferson and Millersburg.
- Congestion along Scenic Drive, I-5, and Waverly may divert traffic flow to neighboring streets such as Gibson Hill, North Albany Road, OR 99E, Old Salem Road, Geary Street, and Center Street.

Table 3: Summary of 2040 Committed Network Corridor Capacity Deficiencies

Road	Direction of Travel	From	To	Deficiency
East-West Regional Corridors				
US 20	Eastbound	MPO Boundary	Blossom Ln	Over Capacity
		North Albany Rd	Springhill Rd	Nearing Capacity
		Springhill Rd	2nd Ave	Over Capacity
	Southbound	Springhill Rd	2 nd Ave	Over Capacity
		2 nd Ave	4 th Ave	Nearing Capacity
		5 th Ave	7 th Ave	Over Capacity
		7 th Ave	OR 99E	Nearing Capacity
	Westbound	2 nd Ave	Springhill Rd	Over Capacity
	Northbound	OR 99E WB Off-Ramp	5 th Ave	Nearing Capacity
		3 rd Ave	2 nd Ave	Nearing Capacity
		2 nd Ave	Springhill Rd	Over Capacity
US 20/ OR 99E	Eastbound	OR 99E EB On-Ramp	9 th Ave	Over Capacity
		9 th Ave	Madison St	Nearing Capacity
	Westbound	Madison St	OR 99E WB Off-Ramp	Over Capacity
Gibson Hill Rd	Westbound	North Albany Rd	Broadway St	Over Capacity
OR 164	Eastbound	I-5 NB Off-Ramps	Main St (Jefferson)	Over Capacity
North-South Regional Corridors				
OR 99E	Northbound	Airport Rd	NB I-5 On-Ramp	Over Capacity
I-5 Ramps	Northbound	OR 99E	I-5	Over Capacity

Source: CALM Travel Demand Model

Note: The model does not incorporate added capacity due to the presence of center turn lanes.

Roadway Safety Needs

ODOT crash data for the most recent five years available (2009-2013) identified four locations that could benefit from safety improvements, based on higher than normal vehicle crash rates:

- Century Drive and I-5 NB Ramps
- Scravel Hill and Knox Butte Roads
- Waverly Drive and US 20
- Queen Avenue and OR 99E

Additionally, several hot-spot crash locations were identified through the All Roads Transportation Safety (ARTS) Program:

- Waverly Drive and US 20
- Geary Street and OR 99E
- Geary Street and US 20
- Clay Street and US 20
- Geary Street and Queen Avenue
- Albany Ave/Airport Rd and OR 99E

Lastly, the ODOT Safety Priority Index System (SPIS) identifies OR 99E and US 20 to be among the top 10% SPIS sites. The locations along each corridor within the AAMPO area are:

- US 20 - through downtown Albany
- OR 99E/US 20 - between Queen Avenue and Waverly Drive
- OR 99E - at 34th Avenue
- OR 99E - near Linn-Benton Community College

Public Transportation System Needs

Transit service in Albany is currently limited and as the AAMPO area grows additional transit investments will be required to serve current and future markets. The MPO is expected to add 20,000 new people and 10,000 new jobs over the next few decades. To maintain existing per capita and per employee service levels in the City of Albany, transit service hours will need to increase between 30% – 70%. Further, residential growth in east Albany and Jefferson and employment growth in Millersburg will increase travel demand to those areas and may require additional transit service to meet their specific needs. Improved sidewalk connectivity will play an important role in improving the efficacy of transit service in the MPO area.

More immediately, however, limited frequency and long travel times make current service ineffective for most people. Improving service would make transit more feasible for people and for a wider variety of trips. Travel training and bilingual information, or information with universal imagery, can also improve system efficacy.

Pedestrian System Needs

Pedestrian connectivity from central Albany to outlying areas, and to some extent within individual communities, is limited. Coincidentally, these outlying areas are also expected to have greater future employment and household growth. More complete sidewalk coverage and the addition of trails or multi-use paths will help support that future growth, improve mobility, and increase safety throughout the AAMPO area. To establish a pedestrian system accessible to all users, improvements should be made to support ADA compliance and the creation of safer routes to school. Development of ADA transition plans or Safe Routes to School programs can help facilitate these improvements.

Two locations in Albany were identified as high vehicle-pedestrian crash areas: the Ellsworth and Lyons couplet (US 20) and the vicinity of the Heritage Plaza Shopping Center. Installation of mid-block crossings, improved lighting, and access management along US 20 may improve safety, along with enforcement or education strategies. Ellsworth and Lyons are part of a Special Transportation Area which creates additional opportunities for pedestrian improvements along ODOT roadways. At a regional scale, programmatic and enforcement activities can also improve the safety and accessibility of for pedestrians in the MPO area.

Bicycle System Needs

Regional bicycle facilities in the AAMPO area generally demonstrate a high level of stress, and anticipated traffic volume growth will compound this. Segments that currently have high levels

of traffic stress and anticipate at least a 50% increase in motor vehicle volume growth through 2040 (relative to existing traffic volumes) are listed below^{xxxii}. Several of these high stress roadways also include bridges which currently do not have adequate bicycle facilities.

- Ellingson Road
- Lochner Road
- Grand Prairie Road
- Knox Butte Road
- Scarvel Hill Road
- Scenic Drive
- Oak Grove Drive
- Palestine Avenue
- 1st Avenue
- 2nd Avenue
- Columbus Street
- Seven Mile Lane
- Goldfish Farm Road
- Dogwood Avenue
- Quarry Road
- Valley View Drive
- Old Salem Road
- OR 164
- Main Street/Jefferson-Scio Drive
- North Avenue/Marion Road
- Portions of US 20
- Portions of OR 99E

The Lyons-Ellsworth Couplet (US 20), the Heritage Plaza Shopping Center, and Queen Avenue were identified as high vehicle-bicycle crash areas that could benefit from safety improvements. Design treatments and education programs can help to improve safety in these areas. At a regional scale, programmatic and enforcement activities can also improve the safety and accessibility of bicycling in the AAMPO area.

Rail System Needs

At-grade rail crossings throughout the AAMPO area, and particularly in Tangent, Jefferson and Albany, cause travel delays, safety concerns, public health impacts, and unreliable routes for emergency vehicles. A contributing factor to these delays are switching movements and permission delays. A prior project which made improvements at the Millersburg switching yard did not alleviate issues related to switching movements or permission delays. These issues may grow in future years as passenger and freight travel increase. At-grade crossings of primary concern are:

- Queen Avenue at OR 99E (Albany)
- Main Street at Hwy 164 (Jefferson)
- Hazel (Jefferson)
- Tangent Drive (Tangent)
- Birdfoot Drive (Tangent)

ODOT is currently considering development of higher-speed and more frequent passenger rail through the AAMPO area. While enhanced passenger rail will support a stronger regional public transportation system, it can also have an impact on safe railroad crossings, congestion (particularly in the vicinity of the Albany Station and the Queen Avenue crossing), and the

general health and wellbeing of area residents impacted by increased noise pollution and vibrations of the higher-speed trains.

ITS System Needs

The ITS infrastructure within the AAMPO area is limited, and the following ITS strategies have been identified by the *Central Willamette Valley ITS Plan* or the *I-5 Optimization Study*:

- Expand Traveler Information Services, specifically on arterial roadways for all modes
- Implement Transit Service Enhancements, through real-time updates and increased speed
- Enhance Safety with bicycle detection and improved signal timing
- Improve Corridor System Management Capabilities through improved signal timing, video monitoring, vehicle detection, and transit signal prioritization
- Construct a Regional Communications Network for data exchange and video sharing
- Construct Virtual Traffic Operations Centers, by providing staffing resources
- Enable Emergency Service Coordination, specifically for planning and operations
- Along the I-5 corridor, improve traffic surveillance, implement ramp metering, improve incident information, and consider weather-responsive variable speed signs

Chapter 7: Recommended Project List

Funding Assumptions

Regional transportation funding was reviewed to estimate potential transportation funds that would be available for transportation capital projects through 2040. The review considered both historical and projected revenue sources and expenses (including operations and maintenance needs) at the city, county, regional, and state levels. Available revenues from public sources (after accounting for ongoing operations and maintenance needs) are forecast to be \$3.3 million in FYE 2016, and are expected to remain relatively flat during the course of the forecast period (in constant 2016 dollars). Total revenues are expected to be \$172.4 million over the forecast period, including \$79.4 million in public sources, and \$93.0 million in private sources. Average annual revenues are estimated to be \$6.9 million. ODOT and the City of Albany are anticipated to contribute the largest amounts of public funding for projects in the AAMPO, combining for 75% of the total public funding.

The revenue estimates shown in Table 4 are not guaranteed. This forecast was developed for the specific purpose of establishing a fiscally-constrained project list for the RTP. In some situations, assumptions were made regarding the level of funding that could be considered aggressive, resulting in a higher level of funding than may ultimately be realized. In particular, the estimate for the amount of private-sector funding is speculative, and dependent on the timing and location of private development relative to the location and timing of future infrastructure investments.

Project Development

The following sections describe coordination with local plans to compile planned projects for each agency and develop the regional project list.

Developing a List of Potential Projects

The list of potential projects includes both “committed” and planned transportation improvement projects identified by local agencies and new projects that address a regional need identified through the RTP development process. Planned transportation projects identified by local agencies were reviewed to determine how they address currently identified regional needs^{xxxiii}. There were also previously planned transportation projects that did not address a specific regional need identified during the RTP process. However, many of these projects align with the goals and policies of the AAMPO RTP, thus they were included in the list of potential projects. Project from the following plans were used to identify the initial project list:

- State Plans: ODOT 2012-2015 STIP and ODOT 2015-2018 STIP

- Regional Plans: AAMPO 2015-2018 STP Project Recommendations
- County Plans: Benton County TSP and Linn County Draft 2015-2020 CIP List
- City Plans: Albany CIP 2015-2019, Albany TSP, Jefferson TSP, Millersburg Draft TSP Project List, and Tangent TSP

Due to the date of some of the plans, the data and standards referenced may be out of date. Local agency staff were given the opportunity to update planned projects and identify additional projects to include in the list of potential projects, which would not be reflected in current plans.

Finally, the project list was augmented with new project concepts developed by the project team to address regional system needs not previously identified by local agencies. A complete list of potential projects is attached. This project list may be further amended as additional projects are identified by agency staff prior to adoption of the RTP Framework.

Evaluation Criteria

To develop a draft financially-constrained transportation solution package, the list of potential projects were evaluated using the AAMPO RTP Draft Goals and Policies^{xxxiv}. The initial evaluation process provides a basis to compare projects across all modes and help to prioritize projects to determine funding priorities through 2040.

The AAMPO RTP Draft Goals and Policies includes ten transportation goals that were used to develop the evaluation criteria. The Draft Goals and Policies were developed through review of local plan goals and policies and coordination with the TAC and Policy Board. The criteria were separated into quantifiable conditions which formed a point ranking system. A project was given a score ranging between -1 and 1, based to measure how well each project addressed each goal. To determine the final evaluation score, each goal was weighted by the Technical Advisory Committee^{xxxv}.

Figure 14: Constrained Project List by Type of Project

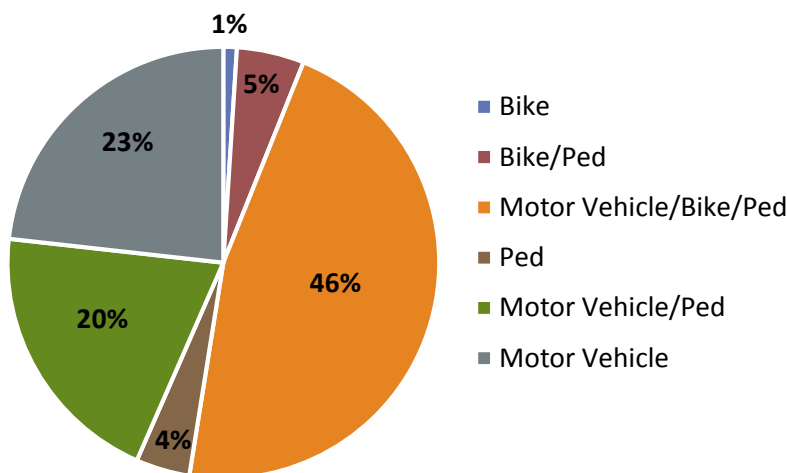
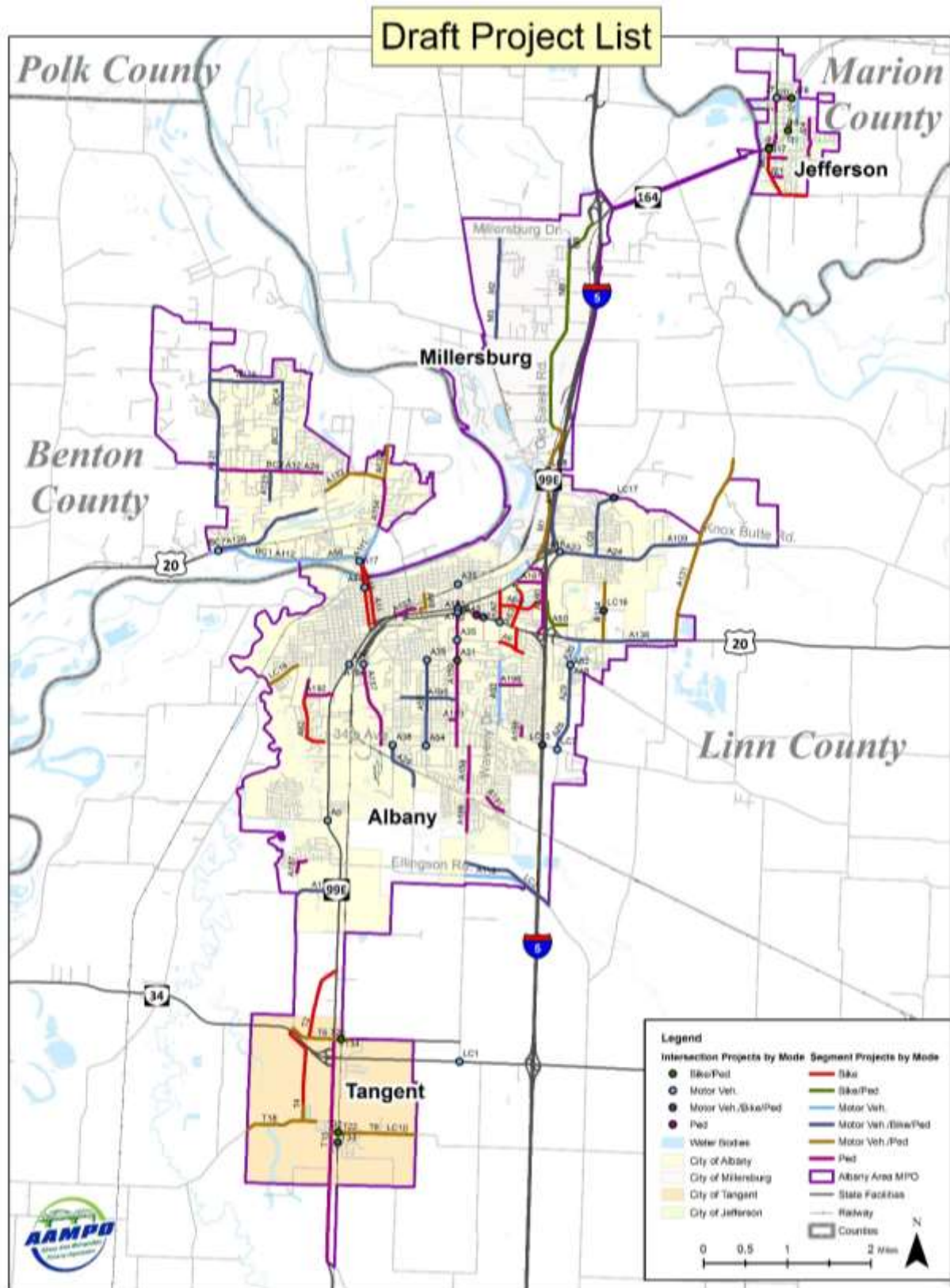


Figure 15: Constrained Project List Map



Source: DKS Associates

Table 4. Projected Revenue Available for Transportation Capital Projects, FY 2016 - 2040

FYE	ODOT	Regional (STP)	City of Albany	City of Jefferson	City of Tangent	City of Millersburg	Linn County	Benton County	Marion County	Total
2016	\$ 1,315,891	\$ 689,041	\$ 1,063,812	\$ 124,757	\$ -	\$ 100,077		\$ -		\$ 3,293,578
2017	\$ 1,300,172	\$ 677,679	\$ 1,067,380	\$ 125,280	\$ -	\$ 100,077		\$ -		\$ 3,270,588
2018	\$ 1,284,461	\$ 666,481	\$ 1,070,949	\$ 125,719	\$ -	\$ 100,077		\$ -		\$ 3,247,687
2019	\$ 1,268,805	\$ 655,464	\$ 1,074,517	\$ 126,265	\$ -	\$ 100,077		\$ -		\$ 3,225,128
2020	\$ 1,102,832	\$ 644,642	\$ 1,074,517	\$ 126,726	\$ -	\$ 100,077		\$ -		\$ 3,048,794
2021	\$ 1,237,814	\$ 634,028	\$ 1,078,086	\$ 127,224	\$ -	\$ 100,077		\$ -		\$ 3,177,229
2022	\$ 1,222,444	\$ 623,582	\$ 1,081,654	\$ 127,691	\$ -	\$ 100,077		\$ -		\$ 3,155,448
2023	\$ 1,207,173	\$ 613,317	\$ 1,085,223	\$ 128,127	\$ -	\$ 100,077		\$ -		\$ 3,133,917
2024	\$ 1,191,941	\$ 603,198	\$ 1,088,791	\$ 128,575	\$ -	\$ 100,077		\$ -		\$ 3,112,582
2025	\$ 1,176,791	\$ 593,242	\$ 1,088,791	\$ 129,033	\$ -	\$ 100,077		\$ -		\$ 3,087,934
2026	\$ 1,011,341	\$ 583,463	\$ 1,092,359	\$ 129,450	\$ -	\$ 100,077		\$ -		\$ 2,916,690
2027	\$ 1,146,794	\$ 573,829	\$ 1,095,928	\$ 129,868	\$ -	\$ 100,077		\$ -		\$ 3,046,496
2028	\$ 1,331,949	\$ 564,358	\$ 1,099,496	\$ 130,330	\$ -	\$ 100,077		\$ -		\$ 3,226,210
2029	\$ 1,505,219	\$ 555,060	\$ 1,103,065	\$ 130,744	\$ -	\$ 100,077		\$ -		\$ 3,394,165
2030	\$ 1,478,928	\$ 545,910	\$ 1,106,633	\$ 131,146	\$ -	\$ 100,077		\$ -		\$ 3,362,694
2031	\$ 1,453,122	\$ 536,921	\$ 1,106,633	\$ 131,537	\$ -	\$ 100,077		\$ -		\$ 3,328,290
2032	\$ 1,277,323	\$ 528,070	\$ 1,110,202	\$ 131,908	\$ -	\$ 100,077		\$ -		\$ 3,147,580
2033	\$ 1,402,820	\$ 519,371	\$ 1,113,770	\$ 132,301	\$ -	\$ 100,077		\$ -		\$ 3,268,339
2034	\$ 1,378,306	\$ 510,805	\$ 1,117,338	\$ 132,704	\$ -	\$ 100,077		\$ -		\$ 3,239,230
2035	\$ 1,354,231	\$ 502,384	\$ 1,120,907	\$ 133,079	\$ -	\$ 100,077		\$ -		\$ 3,210,678
2036	\$ 1,330,552	\$ 494,093	\$ 1,124,475	\$ 133,420	\$ -	\$ 100,077		\$ -		\$ 3,182,617
2037	\$ 1,307,299	\$ 485,944	\$ 1,124,475	\$ 133,799	\$ -	\$ 100,077		\$ -		\$ 3,151,594
2038	\$ 1,134,017	\$ 477,921	\$ 1,128,044	\$ 134,136	\$ -	\$ 100,077		\$ -		\$ 2,974,195
2039	\$ 1,261,983	\$ 470,037	\$ 1,131,612	\$ 134,501	\$ -	\$ 100,077		\$ -		\$ 3,098,210
2040	\$ 1,239,916	\$ 462,280	\$ 1,138,749	\$ 134,820	\$ -	\$ 100,077		\$ -		\$ 3,075,842
Total Public Plus Private	\$ 31,922,124	\$ 14,211,120	\$ 27,487,406	\$ 3,253,140	\$ -	\$ 2,501,917	\$ -	\$ -	\$ -	\$ 79,375,707
Total	\$ 31,922,124	\$ 14,211,120	\$ 120,487,406	\$ 3,253,140	\$ -	\$ 2,501,917	\$ -	\$ -	\$ -	\$ 172,375,707
Average	\$ 1,276,885	\$ 568,445	\$ 1,099,496	\$ 130,126	\$ -	\$ 100,077	\$ -	\$ -	\$ -	\$ 6,895,028

Notes: Calculated by ECONorthwest based on various sources (see prior tables in document for list of sources). Uses constant 2016 dollar

Draft Project List

The list of potential projects was condensed into a draft transportation solution package based on transportation funding assumptions, regional needs and the evaluation process. Table 5 lists the draft projects, which are mapped in Figure 14.

Table 5: Draft 20-Year Project List

#	Project Name	Roadway or Trail	Location	Description	City/County (Area)	Jurisdiction	Mode	Cost	Project Type
Benton County Projects									
BC1	Corvallis to Albany Trail	Hwy 20	Scenic Dr - Springhill Rd	Construct off highway multiuse path	Benton County	ODOT	B/P	\$2,434,000	New Multi-Use Path
BC2	Gibson Hill Urbanization	Gibson Hill Rd	North Albany Rd to Scenic Dr	Urbanization	Benton County	Benton County	M/B/P	\$500,000	Modernization
BC3	Crocker Urbanization - Part 1	Crocker Ln	Valley View to Meadowwood	Urbanization	Benton County	Benton County	M/B/P	\$ -	Modernization
BC4	Crocker Urbanization - Part 2	Crocker Ln	Cluster Oak Ave - Gibson Hill Rd	Urbanization	Benton County	Benton County	M/B/P	\$ -	Modernization
BC5	Palestine Ave/Oak Grove Dr Re-alignment	Palestine Ave/Oak Grove Dr	Palestine Ave/Oak Grove Dr	Intersection re-alignment	Benton County	Benton County	M/B/P	\$-	Intersection Safety Improvement
BC7	US 20/Scenic Dr Intersection Improvements	US 20/Scenic Dr	US 20/Scenic Dr	Add turn lanes	Benton County	ODOT	M	\$ -	Intersection Capacity Improvement
City of Albany Projects									
A6	14th Ave Sharrows	14th Ave	Waverly Dr to Center St	Install painted "Sharrows" in the bike lane gaps on 14th Avenue from Waverly Dr to Center St. Painting a shared right-of-way (sharrow) symbol on the pavement does not require parking removal.	City of Albany	City of Albany	B	\$2,000	Bike Improvement

#	Project Name	Roadway or Trail	Location	Description	City/County (Area)	Jurisdiction	Mode	Cost	Project Type
A7	Waverly Dr Sharrows	Waverly Dr	99E to US 20	Install bike "Sharrows" on Waverly Drive between Oregon 99E and US 20. Painting a shared right-of-way (sharrow) symbol on the pavement does not require parking removal.	City of Albany	City of Albany	B	\$5,000	Bike Improvement
A11	Lyon St Sharrows	Lyon St	9th Ave to Willamette River	Install painted "Sharrows" in the bike lane gaps on Lyon Street from 9th Avenue to the Willamette River (no sharrows needed on bridge due to shoulder). Painting a shared right-of-way (sharrow) symbol on the pavement does not require parking removal. This project is contingent upon ODOT approval, inclusion of sharrows in the MUTCD, and the associated guidance in the MUTCD.	City of Albany	ODOT	B	\$2,000	Bike Improvement
A12	Ellsworth St Sharrows	Ellsworth St	9th Ave to Springhill Dr	Install painted "Sharrows" in the bike lane gaps on Ellsworth Street from 9th Avenue to Springhill Drive, including Ellsworth Street bridge. Painting a shared right-of-way (sharrow) symbol on the pavement does not require parking removal. Project is contingent upon ODOT approval, inclusion of sharrows in the MUTCD, and the associated guidance in the MUTCD.	City of Albany	City of Albany	B	\$4,000	Bike Improvement

#	Project Name	Roadway or Trail	Location	Description	City/County (Area)	Jurisdiction	Mode	Cost	Project Type
A17	US 20/Springhill Dr Intersection Capacity Upgrade	US 20/Springhill Dr	US 20/Springhill Dr	Convert southbound right-turn to a shared left-right lane, creating dual-southbound lefts on Springhill Road. Relocate westbound stop bar on US 20 of inside lane 10-20 feet east of current location. Lengthen cycle length to 120 seconds and develop coordination between North Albany Road and Springhill Road along US 20. Design of the intersection should allow for right-turns on red for southbound vehicles if feasible.	City of Albany	ODOT	M	\$14,000	Intersection Capacity Improvement
A18	Knox Butte Rd/Century Dr Interim Signal	Knox Butte Rd/Century Dr	Knox Butte Rd/Century Dr	If warranted, install an interim traffic signal. This signal may be removed when the intersection is reconstructed by ODOT.	City of Albany	City of Albany	M	\$345,000	Intersection Capacity Improvement
A20	Timber St Extension	Timber St	US 20 to Three Lakes Rd	Right- of-way acquisition for extension Timber Street south of US 20 to connect to the Three Lakes Rd/Spicer Dr intersection. The design and alignment review will be completed with the I-5 Corridor Study (project S10). Alternate routes for the Industrial Way ingress/egress will be considered.	City of Albany	City of Albany	M	\$966,000	New Roadway
A23	Knox Butte Rd Widening ROW	Knox Butte Rd	I-5 to Clover Ridge Rd	ROW Acquisition for I-5 to Clover Ridge Rd portion of Knox Butte Rd widening project.	City of Albany	City of Albany	M/B/P	\$1,478,000	Roadway Capacity Improvement
A24	Knox Butte Rd Widening ROW	Knox Butte Rd	Clover Ridge Rd to Goldfish Farm Rd	ROW Acquisition for Clover Ridge Rd to Goldfish Farm Rd portion of Knox Butte Rd widening project.	City of Albany	City of Albany	M/B/P	\$31,000	Roadway Capacity Improvement

#	Project Name	Roadway or Trail	Location	Description	City/County (Area)	Jurisdiction	Mode	Cost	Project Type
A25	Three Lakes Rd Realignment ROW	Three Lakes Rd	Kelly Supply Company to Grand Prairie Rd	ROW reguquired to realign the short roadway segment that includes the 90-degree curves to a typical three-lane roadway to improve the horizontal alignment.	City of Albany	City of Albany	M/B/P	\$750,000	Roadway Capacity Improvement
A26	Gibson Hill Rd Improvements	Gibson Hill Rd	Scenic Dr to North Albany Rd	Add sidewalk, curb, and gutter, and bicycle lanes from Scenic Drive to the roundabout at North Albany Road. Consider rural design standard with setback sidewalks	City of Albany	City of Albany	M/B/P	\$3,816,000	Modernization
A28	Lochner Rd Improvements - North	Lochner Rd	Youth Authority to 34th Ave	Add sidewalk, curb, gutter, and bike lanes to Lochner Road and Marion Road.	City of Albany	City of Albany	M/B/P	\$3,722,000	Modernization
A29	Three Lakes Rd Improvements ROW	Three Lakes Rd	Spicer Road to Grand Prairie Rd	ROW acquisition for adding sidewalk, curb, gutter, and bike lanes from Spicer Road to Grand Prairie Road, excluding Three Lakes Road realignment at 90-degree curves.	City of Albany	City of Albany	M/B/P	\$287,000	Modernization
A31	Queen/Geary Periwinkle Path	Periwinkle Trail	Queen Ave/Geary St	Construct multi-use path improvement by widening the sidewalk to connect the Periwinkle Trail through the Queen Avenue/Geary Street intersection	City of Albany	City of Albany	B/P	\$46,000	New Multi-Use Path
A32	Gibson Hill Rd Sidewalks	Gibson Hill Rd	Scenic Rd to North Albany Rd	Add 6-foot wide asphalt sidewalks set back from the roadway on both sides of Gibson Hill Rd from Scenic Dr to the roundabout at North Albany Rd.	City of Albany	N/A	P	\$1,034,000	Sidewalk Infill
A34	Hwy 20 Corridor and Downtown Refinement Plan	Hwy 20	Hwy 20 Corridor and Downtown Albany	Conduct a Highway 20 Corridor and Downtown Refinement Plan that extends to I-5 to look at regional bridge capacity needs, potential bridge locations, other corridor and intersection needs, and continue through permitting process.	City of Albany	ODOT	M	\$250,000	Study

#	Project Name	Roadway or Trail	Location	Description	City/County (Area)	Jurisdiction	Mode	Cost	Project Type
A35	Safety Audit	Geary St/Salem Ave, Geary St/14th Ave, Queen Ave/Hill St	Geary St/Salem Ave, Geary St/14th Ave, Queen Ave/Hill St	Intersection Safety Audit/Study at Geary Street/Salem Avenue, Geary Street/14th Avenue, and Queen Avenue/Hill Street. Consider countermeasures for rear-end and turning-type crashes.	City of Albany	City of Albany	M	\$30,000	Study
A38	34th Ave/Marion St Signal	34th Ave/Marion St	34th Ave/Marion St	Install a new traffic signal.	City of Albany	City of Albany	M	\$345,000	Intersection Capacity Improvement
A43	US 20/Clay St Intersection Capacity Upgrade	US 20/Clay St	US 20/Clay St	Restripe intersection lane markings and convert left-turn phasing on Clay Street to protected-permissive with the flashing yellow arrow signal head. Install exclusive eastbound right-turn lane on US 20.	City of Albany	ODOT	M	\$185,000	Intersection Capacity Improvement
A44	US 20 (Ellsworth St)/1st Ave Signal Mod	US 20 (Ellsworth St)/1st Ave	US 20 (Ellsworth St)/1st Ave	Implement actuated-coordinated signal control. Shorten pedestrian crossing distance across Ellsworth Street. Extend cycle length to 70 seconds, and develop timing plans with offsets that facilitate southbound and westbound progression.	City of Albany	ODOT	M	\$18,000	Intersection Capacity Improvement
A48	Timber St Extension/18th Ave/Spicer Dr Roundabout	Timber St Extension/18th Ave/Spicer Dr	Timber St Extension/18th Ave/Spicer Dr	ROW aquisition for a roundabout as the traffic control for the new intersection of Three Lakes Road/18th Street/Timber Street/Spicer Road. The north extension of Spicer Road will not connect to the intersection. Rather, it will become a local street with a cul-de-sac located northwest of the roundabout.	City of Albany	City of Albany	M	\$650,000	Intersection Capacity Improvement

#	Project Name	Roadway or Trail	Location	Description	City/County (Area)	Jurisdiction	Mode	Cost	Project Type
A49	Main St, 7th Ave, Hill St improvements	Main St, 7th Ave, Hill St	Santiam Rd to 7th Ave, Main St to Hill St, 7th Ave to Pacific Blvd	Reconstruct Main Street with new sidewalk, curb, and gutter from Santiam Road to 7th Avenue. Repave 7th Avenue between Main Street and Hill Street, then reconstruct Hill Street with new sidewalk, curb, and gutter from 7th Avenue to Pacific Boulevard.	City of Albany	City of Albany	M/P	\$1,292,000	Rehabilitation
A50	West Timber-Linn Trail	New Trail	Timber-Linn Park to South Shore Dr	Construct multi-use path to connect Timber-Linn Park to South Shore Drive (assumes that I-5 undercrossing will not require widening and/or additional excavation of the existing creek under-crossing, or that any such widening will occur as part of I-5 reconstruction).	City of Albany	City of Albany	B/P	\$161,000	New Multi-Use Path
A54	35th Ave/Hill St Signal	34th Ave/Hill St	34th Ave/Hill St	Install 100-foot northbound and southbound left-turn lanes, and a new traffic signal.	City of Albany	City of Albany	M	\$350,000	Intersection Capacity Improvement
A55	Hill St Reconstruction	Hill St	Queen Ave to 34th Ave	The project will reconstruct 1.03 miles of Hill Street. The existing pavement is heavily deteriorated. In addition to new pavement the project will add on-street bike lanes to the street and retain on-street parking. Curb ramps at intersections will be upgraded to meet current ADA standards. The project is on Hill Street and will extend 1.03 miles from Queen Avenue south to 34th Avenue.	City of Albany	City of Albany	M/B/P	\$6,100,000	Rehabilitation
A56	US 20 Bike Lanes	US 20	Willamette River west to UGB	Convert shoulders to bike lanes on US 20 in North Albany from Willamette River (including the Lyon Street bridge which has an existing shoulder) to UGB.	City of Albany	ODOT	B	\$31,000	Bike Improvement

#	Project Name	Roadway or Trail	Location	Description	City/County (Area)	Jurisdiction	Mode	Cost	Project Type
A62	Liberty/Lakewood Bike Boulevard	Liberty St and Lakewood St	24th Ave to 99E	Install bike boulevard treatments including wayfinding, traffic calming, and intersections treatments as deemed necessary on Liberty/Lakewood from 24th Avenue to Oregon 99E.	City of Albany	City of Albany	B	\$76,000	Bike Improvement
A63	Bain St Bike Boulevard	Bain St	99E to US 20	Install bike boulevard treatments including wayfinding, traffic calming, and intersections treatments as deemed necessary on Bain Street from Oregon 99E to US 20.	City of Albany	City of Albany	B	\$49,000	Bike Improvement
A64	South Shore Dr Bike Boulevard	South Shore Dr	Bain St to Airport Rd	Install bike boulevard treatments including wayfinding, traffic calming, and intersections treatments as deemed necessary on Southshore Drive from Bain St to Airport Rd.	City of Albany	City of Albany	B	\$33,000	Bike Improvement
A65	Shortridge St Bike Boulevard	Shortridge St	US 20 to 14th Ave	Install bike boulevard treatments including wayfinding, traffic calming, and intersections treatments as deemed necessary on Shortridge Street from US 20 to 14th Avenue.	City of Albany	City of Albany	B	\$27,000	Bike Improvement
A75	US 20/Waverly Dr Intersection Capacity Upgrade	US 20/Waverly Dr	US 20/Waverly Dr	Install second westbound left-turn lane and eastbound right-turn lane on US 20. Install northbound right-turn overlap, add another southbound through lane on Waverly Drive. Obtain right-of-way for an additional northbound through lane at time impacted parcels redevelop and construct when warranted (cost for this improvement identified separately under other costs).	City of Albany	ODOT	M	\$1,093,000	Intersection Capacity Improvement

#	Project Name	Roadway or Trail	Location	Description	City/County (Area)	Jurisdiction	Mode	Cost	Project Type
A76	OR 99E/Queen Ave Intersection Capacity Upgrade	OR 99E/Queen Ave	OR 99E/Queen Ave	Install northbound and southbound right-turn lanes on OR 99E. On Queen Avenue, add second westbound and eastbound left-turn lanes, and extend eastbound right-turn lane to 200-feet. Review pavement and drainage quality to ensure sufficiency.	City of Albany	ODOT	M	\$894,000	Intersection Capacity Improvement
A82	Timber St Extension/18th Ave/Spicer Dr Roundabout	Timber St Extension/18th Ave/Spicer Dr	Timber St Extension/18th Ave/Spicer Dr	Develop a roundabout as the traffic control for the new intersection of Three Lakes Road/18th Street/Timber Street/Spicer Road. The north extension of Spicer Road will not connect to the intersection. Rather, it will become a local street with a cul-de-sac located northwest of the roundabout.	City of Albany	City of Albany	M	\$863,000	Intersection Capacity Improvement
A92	Waverly Dr Capacity Improvements	Waverly Dr	Queen Ave to Grand Prairie Rd	Widen Waverly Drive to a 4-lane cross-section between Queen Avenue and Grand Prairie Road using two southbound lanes, one northbound lane and a two-way left-turn lane. This project will maintain sidewalks and bicycle lanes, but remove on-street parking on Waverly in this segment due to ROW constraints.	City of Albany	City of Albany	M	\$1,394,000	Intersection Capacity Improvement

#	Project Name	Roadway or Trail	Location	Description	City/County (Area)	Jurisdiction	Mode	Cost	Project Type
A106	Knox Butte Rd Widening	Knox Butte Rd	I-5 to Clover Ridge Rd	Widens Knox Butte Road to five lanes eastbound from I-5 to Clover Ridge Road. Includes bike lanes, sidewalks, curb, and gutter on both sides of the roadway. Right-of-way acquisition will occur in the short-term (and be 100% SDC eligible) with construction occurring in the long-term. Alternative access to the RV Park located on Expo Parkway, potentially to access Knox Butte Road, should be considered as traffic volumes on Expo Parkway increase. Final design should mitigate access and driveway impact to the houses that remain	City of Albany	City of Albany	M/B/P	\$1,901,400	Roadway Capacity Improvement
A107	Knox Butte Rd Widening	Knox Butte Rd	Clover Ridge Rd to Goldfish Farm Rd	Widen Knox Butte Road to four lanes from Clover Ridge Road to Goldfish Farm Road. Includes bike lanes, sidewalks, curb, and gutter on both sides of the roadway. Right-of-way acquisition will occur in the short-term (and be 100% SDC eligible) with construction occurring in the long-term.	City of Albany	City of Albany	M/B/P	\$825,000	Roadway Capacity Improvement
A108	Knox Butte Rd Widening	Knox Butte Rd	Goldfish Farm Rd to new North/South Collector	Widens Knox Butte Road to three lanes from Goldfish Farm Road to the new North/South Collector including the Burkhart Creek bridge. Includes bike lanes, sidewalks, curb, and gutter on both sides of the roadway.	City of Albany	City of Albany	M/B/P	\$1,256,000	Roadway Capacity Improvement
A109	Knox Butte Rd Widening	Knox Butte Rd	New North/South Collector east to UGB	Urban upgrade of Knox Butte Road from the new North/South Collector to the urban growth boundary. Includes bike lanes, sidewalks, curb, and gutter on both sides of the roadway.	City of Albany	Linn County	M/B/P	\$7,688,000	Modernization

#	Project Name	Roadway or Trail	Location	Description	City/County (Area)	Jurisdiction	Mode	Cost	Project Type
A111	Springhill Rd Widening	Springhill Rd	US 20 to railroad crossing	Widens Springhill Road to two lanes northbound and southbound from US 20 to north of Hickory Road then transition to three lanes across the rail crossing. Springhill Road is under Benton County jurisdiction and this project is not in their 2001 TSP.	City of Albany	City of Albany	M	\$3,406,000	Roadway Capacity Improvement
A112	US 20 Widening	US 20	North Albany Rd west to the UGB	Widens US 20 to two lanes eastbound and westbound and add sidewalk, curb, and gutter from North Albany Road west to the urban growth boundary.	City of Albany	ODOT	M	\$8,351,000	Roadway Capacity Improvement
A113	Ellingson Rd Extension	Ellingson Rd	Columbus Ave to I-5 overcrossing	Extends Ellingson Road from Columbus Avenue to Interstate 5 overcrossing at Seven Mile Lane. Realign Seven Mile Lane on the west side of I-5 to align with current Ellingson Road, forming a four-leg intersection at Columbus Street. This section of Ellingson Road should be evaluated for the need to preserve right-of-way for a future five-lane section at the next TSP Update. Project cost assumes ROW will be dedicated.	City of Albany	Linn County	M	\$4,430,000	New Roadway
A118	Albany Ave Widening	Albany Ave	Old Salem Rd to Pacific Hwy	Widen Albany Avenue to four lanes. Includes widening bridge structure. Project cost assumes ROW will be dedicated.	City of Albany	City of Albany	M	\$1,177,000	Roadway Capacity Improvement
A120	Springhill Dr Improvements	Springhill Dr	RR crossing north to UGB	Add sidewalk, curb, and gutter from the railroad to urban growth boundary. US 20 to railroad is Project A111 (Albany TSP L26). Coordinate project with Benton County.	City of Albany	City of Albany	M/P	\$4,158,000	Modernization

#	Project Name	Roadway or Trail	Location	Description	City/County (Area)	Jurisdiction	Mode	Cost	Project Type
A121	Scenic Dr Improvements	Scenic Dr	Scenic Woods Pl north to UGB	Add sidewalk, bike lane, curb, and gutter from east of Scenic Woods Place to northern urban growth boundary. Coordinate project with Benton County. Project cost assumes ROW will be dedicated.	City of Albany	Benton County	M/B/P	\$6,842,000	Modernization
A122	Century Dr Improvements	Century Dr	Dunlap Ave north to UGB	Add sidewalk, bike lane, curb, and gutter from Dunlap Avenue to northern urban growth boundary. Project cost assumes ROW will be dedicated.	City of Albany	Linn County	M/B/P	\$3,199,000	Modernization
A123	Skyline Dr Improvements	Skyline Dr	Gibson Hill Rd to Mirada St	Add sidewalk, curb and gutter, and bicycle lanes or sharrows depending upon volumes and right-of-way constraints from Gibson Hill Road to Mirada Street.	City of Albany	City of Albany	M/B/P	\$1,523,000	Modernization
A125	Valley View Dr Improvements	Valley View Dr	Scenic Dr to Crocker Rd	Add sidewalk, curb and gutter, and bicycle lanes from Scenic Drive to Crocker Road.	City of Albany	City of Albany	M/B/P	\$3,695,000	Modernization
A126	West Thornton Lake Dr Improvements	West Thornton Lake Dr	North Albany Rd to Scenic Dr	Add sidewalk, bike lanes, curb, and gutter from North Albany Road to Scenic Drive.	City of Albany	City of Albany	M/B/P	\$6,097,000	Modernization
A127	Allen Ln Improvements	Allen Ln	Hwy 99 to Looney Ln	Add sidewalk, curb, and gutter from Highway 99E to Looney Lane.	City of Albany	City of Albany	M/B/P	\$2,689,000	Modernization
A131	Scravel Hill Rd Improvements	Scravel Hill Rd	US 20 north to UGB	Add sidewalk, curb, and gutter from US 20 (Santiam Hwy) to the urban growth boundary with a three-lane section from US 20 to north of Knox Butte Road and a two-lane section from north of Knox Butte Road to the UGB. Project cost assumes ROW for the three-lane section will be dedicated.	City of Albany	Linn County	M/P	\$9,699,000	Modernization
A132	Quarry Rd Improvements	Quarry Rd	North Albany Rd to Springhill Dr	Add sidewalk, curb, and gutter from North Albany Road to Springhill Drive.	City of Albany	City of Albany	M/P	\$3,493,000	Modernization

#	Project Name	Roadway or Trail	Location	Description	City/County (Area)	Jurisdiction	Mode	Cost	Project Type
A134	Goldfish Farm Rd Improvements	Goldfish Farm Rd	Dogwood Ave to US 20	Add sidewalk, curb, and gutter from Dogwood Avenue to US 20.	City of Albany	Linn County	M/P	\$4,444,000	Modernization
A138	US 20 Improvements	US 20	I-5 east to UGB	Add sidewalk, curb, gutter, and shoulder bike lanes to US 20 from Interstate 5 to the urban growth boundary	City of Albany	ODOT	M/B/P	\$2,068,000	Modernization
A140	US 20 Superelevation and Widening	US 20	US 20 bridge-head to North Albany Rd	Correct superelevation issues at intersection along US 20. Widen US 20 for a third westbound through lane between the north US 20 bridge-head and North Albany Road.	City of Albany	ODOT	M	\$3,122,000	Roadway Capacity Improvement
A148	Bain Street/Waverly Lake Trail	New Trail Connection	Bain St to OR99 path	Construct a bike/ped bridge over Cox Creek to connect Bain Street to the existing Oregon 99E multi-use path under-crossing.	City of Albany	City of Albany	B/P	\$153,000	New Multi-Use Path
A154	Springhill Dr Sidewalks	Springhill Dr	Quarry Dr to railroad line	Construct sidewalks on both sides of Springhill Drive between Quarry Drive and the railroad line.	City of Albany	City of Albany	P	\$542,000	Sidewalk Infill
A156	99E: Burkhardt to Waverly Ped Crossing	99E	Between Burkhardt St and Waverly Dr	Construct pedestrian crossing improvement on Oregon 99E between Burkhardt Street and Waverly Drive	City of Albany	ODOT	P	\$129,000	Pedestrian Crossing Improvement
A157	Ferry St Sidewalks	Ferry St	Queen Ave to 34th Ave	Eliminate the sidewalk gaps on Ferry Street between Queen Avenue and 34th Street	City of Albany	City of Albany	P	\$725,000	Sidewalk Infill
A158	Columbus St Sidewalks	Columbus St	Del Rio Ave to 34th Ave	Eliminate the sidewalk gap on Columbus Street between Del Rio Avenue and 34th Avenue.	City of Albany	City of Albany	P	\$277,000	Sidewalk Infill
A159	Geary St Sidewalks	Geary St	Santiam Rd to 34th Ave	Eliminate the sidewalk gaps on Geary Street between Santiam Road and 34th Avenue.	City of Albany	City of Albany	P	\$791,000	Sidewalk Infill

#	Project Name	Roadway or Trail	Location	Description	City/County (Area)	Jurisdiction	Mode	Cost	Project Type
A160	Airport Rd Sidewalks	Airport Rd	99E and I-5 SB off-ramp	Construct sidewalk on both sides of Airport Road between Oregon 99E and I-5 SB off-ramp. Construct sidewalk on the west side of Airport Road between I-5 SB off-ramp and US 20	City of Albany	City of Albany	P	\$485,000	Sidewalk Infill
A161	Killdeer St Sidewalks	Killdeer St	Airport Rd to Pacific Blvd	Eliminate the sidewalk gaps on Killdeer Street.	City of Albany	City of Albany	P	\$174,000	Sidewalk Infill
A167	Interstate 5/OR 99E/Knox Butte	Knox Butte Rd/I-5 Ramps	Knox Butte Rd/I-5 Interchange Area	I-5 EIS includes Knox Butte interchange options and area management plan including 99E/Albany Avenue & Knox Butte/Century Drive. EIS will be followed by Design/ROW Acquisition, development of an Interchange Area Management Plan (IAMP), and Reconstruction. Total project cost is an estimate of the potential city contribution to the project	City of Albany	ODOT	M	\$100,000	Study
A168	Interstate 5 / US 20 (Santiam)	I-5/US 20	I-5/US 20	I-5 EIS includes Santiam interchange options and area management plan including Hwy20/Fescue/Spicer & Hwy 20/Airport Rd. EIS will be followed by Design/ROW Acquisition, development of an Interchange Area Management Plan (IAMP), and Reconstruction. Total project cost is an estimate of the potential city contribution to the project.	City of Albany	ODOT	M	\$100,000	Study
A182	Hwy 99/9th Ave/Geary St Safety Upgrades	Hwy 99/9th Ave/Geary St	Hwy 99/9th Ave/Geary St	Intersection safety upgrades	City of Albany	ODOT	M	\$300,000	Intersection Safety Improvement
A183	99E/ Geary St Signal Safety Upgrade	99E/Pacific Ave/Geary St	99E/Pacific Ave/Geary St	Signal safety upgrade	City of Albany	ODOT	M	\$50,000	Intersection Safety Improvement

#	Project Name	Roadway or Trail	Location	Description	City/County (Area)	Jurisdiction	Mode	Cost	Project Type
A184	Queen Avenue Rail Crossing Safety Improvements	Queen Ave	OR 99E to Ferry St	The Albany Rail Yard, situated just north of Queen Avenue on the east side of OR 99E, is a crossing point for all of the UPRR rail lines in Albany and is one of the most capacity-constrained segments on the UPRR resulting in long delays while passing trains await permissions to cross. (Albany TSP) To help minimize the blockage at the Queen Avenue crossing the Albany Rail Corridor Improvement Project will add a short section of track in Albany to connect the Toledo Branch directly to the Millersburg Yard. The nearly \$8.7 million dollar project will also rehabilitate the Millersburg Yard. The additional track will allow switching movements and training building to move from the Albany Yard to the Millersburg Yard.	City of Albany	UPRR	M	\$ --	Intersection Safety Improvement
A187	Looney Ln Sidewalk	Looney Ln	Belmont Ave to Campbell Ct	Add sidewalk on east side	City of Albany	City of Albany	P	\$75,000	Sidewalk Infill
A188	Liberty St Sidewalk	Liberty St	Queen Ave to 24th Ave	Fill in sidewalk gaps.	City of Albany	City of Albany	P	\$125,000	Sidewalk Infill
A189	Lexington St Sidewalk	Lexington St	Grand Prairie Rd - 30th Ave	Fill in sidewalk gaps.	City of Albany	City of Albany	P	\$55,000	Sidewalk Infill
A191	Del Rio Ave Sidewalk	Del Rio Ave	Waverly Dr - Shortridge St	Fill in sidewalk gaps.	City of Albany	City of Albany	P	\$150,000	Sidewalk Infill
A192	24th Ave West Sidewalk	24th Ave	Elm St	Fill in sidewalk gaps.	City of Albany	City of Albany	P	\$135,000	Sidewalk Infill
A193	28th Ave Sidewalk	28th Ave	Pine St to Geary St	Fill in sidewalk gaps.	City of Albany	City of Albany	P	\$40,000	Sidewalk Infill

#	Project Name	Roadway or Trail	Location	Description	City/County (Area)	Jurisdiction	Mode	Cost	Project Type
A194	Belmont Ave Sidewalk	Belmont Ave	Looney Ln to Piedmont Pl	Fill in sidewalk gaps.	City of Albany	City of Albany	P	\$50,000	Sidewalk Infill
A195	24th Ave Reconstuction	24th Ave	Jackson St to Geary St	Reconstruct 0.66 miles of 24th Ave. Existing pavement is heavily deteriorated. In addition to new pavement the project will construct infill sidewalks to improve access to Sunrise Elementary School, upgrade curb ramps at intersections to meet current ADA standards, and construct bicycle boulevard improvement as identified in Albany's TSP. The project is on 24th Avenue and will extend 0.66 miles from Jackson Street east to Geary Street.	City of Albany	City of Albany	M/B/P	\$1,100,000	Rehabilitation
A196	21st Ave Sidewalk	21st Ave	Waverly Dr to Center St	Fill in sidewalk gaps.	City of Albany	City of Albany	P	\$130,000	Sidewalk Infill
A197	7th Ave Sidewalk	7th Ave	Jackson St to Madison St	Fill in sidewalk gaps.	City of Albany	City of Albany	P	\$300,000	Sidewalk Infill
A198	Columbus St Sidewalks North	Columbus St	54th Ave to Becca Ct	Fill in sidewalk gaps.	City of Albany	City of Albany	P	\$300,000	Sidewalk Infill
A206	Albany Area Pavement Preservation and Maintenance	All Albany Area MPO collectors and arterials	Various Locations within the Albany Area MPO Boundary	Pavement preservation and maintenance projects will be identified on an ongoing basis consistent with prioritization process adopted by AAMPO (ongoing).	Albany Area MPO	Albany Area MPO	M	\$29,000,000	Preservation
Marion County Projects									
MC1	Main St widening	Main St	Hwy 99E east to UGB	Widen shoulders on both sides	City of Jefferson	Marion County	B	\$20,000	Bike Improvement
MC2	North Ave Widening	North Ave	Hwy 99E to Jefferson-Marion Rd	Widen shoulders on both sides	City of Jefferson	Marion County	B	\$3,000	Bike Improvement
City of Jefferson Projects									

#	Project Name	Roadway or Trail	Location	Description	City/County (Area)	Jurisdiction	Mode	Cost	Project Type
J1	North Ave Bike Lanes	North Ave	99E to 3rd Ave	Hwy 99E/2nd St to 3rd St: ADA compliant sidewalk on N side--bike lanes on N & S	City of Jefferson	Marion County	B/P	\$71,000	Bike Improvement
J2	5th St extension	5th St	North Ave to Jefferson-Scio Dr	Complete collector connection from North Ave to Jefferson-Scio Dr	City of Jefferson	City of Jefferson	M	\$800,000	New Roadway
J7	Hwy 99E/North Ave Signal	Hwy 99E/North Ave	Hwy 99E/North Ave	Add northbound and westbound right-turn lanes and traffic signal.	City of Jefferson	ODOT	M	\$275,000	Intersection Capacity Improvement
J8	Hwy 99E Sidewalk	Hwy 99E	Santiam River Bridge to north of Union St	New sidewalks on east side	City of Jefferson	ODOT	P	\$36,000	Sidewalk Infill
J11	Hwy 99E Sidewalk	Hwy 99E	University St to North Ave	New sidewalks on west side	City of Jefferson	ODOT	P	\$20,400	Sidewalk Infill
J14	Greenwood St Sidewalk	Greenwood St	Main St to 3rd St	New sidewalks on both sides	City of Jefferson	City of Jefferson	P	\$37,500	Sidewalk Infill
J16	Hwy 99/Main St Intersection Capacity Upgrade	Hwy 99/Main St	Hwy 99/Main St	Add turn lanes	City of Jefferson	ODOT	M	\$1,500,000	Intersection Capacity Improvement
J17	Main St Rail Crossing Improvements	Main St	Main St Rail Crossing	Improvements to Ped/Bike rail crossing facilities	City of Jefferson	Marion County	B/P	\$500,000	Pedestrian Crossing Improvement
J18	Hazel St Rail Crossing Improvements	Hazel St	Hazel St Rail Crossing	Improvements to Ped/Bike rail crossing facilities	City of Jefferson	City of Jefferson	B/P	\$ 500,000	Pedestrian Crossing Improvement
J19	Cemetery Hill Rd Rail Crossing Improvements	Cemetery Hill Rd	Cemetery Hill Rd Rail Crossing	Improvements to Ped/Bike rail crossing facilities	City of Jefferson	Marion County	B/P	\$500,000	Pedestrian Crossing Improvement
J20	North Ave Sidewalks	North Ave	OR 164 to Cemetery Hill Rd	Fill in sidewalk gaps.	City of Jefferson	Marion County	P	\$75,000	Sidewalk Infill
J21	High St Sidewalks	High St	Main St to 3rd St	Fill in sidewalk gaps.	City of Jefferson	City of Jefferson	P	\$135,000	Sidewalk Infill

#	Project Name	Roadway or Trail	Location	Description	City/County (Area)	Jurisdiction	Mode	Cost	Project Type
J22	Greenwood St Sidewalk East	Greenwood St	Faith Dr to 5th St	Fill in sidewalk gaps.	City of Jefferson	City of Jefferson	P	\$35,000	Sidewalk Infill
J24	7th St Sidewalks	7th St	Maple Ct to Greenwood Dr	Fill in sidewalk gaps.	City of Jefferson	City of Jefferson	P	\$200,000	Sidewalk Infill
City of Tangent Projects									
T2	McFarland Dr Bikeway	McFarland Dr	99E to Old Hwy 34	Add shoulder bikeways	City of Tangent	Linn County	B	\$33,000	Bike Improvement
T4	McFarland Dr Bike Lanes	McFarland Dr	Hwy 34 to Lake Creek Dr	Add shoulder bike lanes	City of Tangent	Linn County	B	\$174,000	Bike Improvement
T5	Old Hwy 34 On-Street Bike Lane	Old Hwy 34	Looney Ln to 99E	Add on-street bike lane	City of Tangent	ODOT	B	\$214,000	Bike Improvement
T6	Tangent Dr On-Street Bike Lane	Tangent Dr	99E to City Limits	Add on-street bike lane (City Portion)	City of Tangent	Linn County	B	\$149,000	Bike Improvement
T13	Hwy 99E Sidewalks	Hwy 99E	Old Hwy 34 to south City Limits	Install sidewalks	City of Tangent	ODOT	P	\$1,088,000	Sidewalk Infill
T17	McFarland Dr Sidewalks	McFarland Dr	East UGB to N Lake Creek Rd	Install curb, gutter, and sidewalks on both sides	City of Tangent	Linn County	M/P	\$112,000	Modernization
T18	N Lake Creek Dr Sidewalks	N Lake Creek Dr	Meadow Lark Loop to west UGB	Install curb, gutter, and sidewalks on the south side	City of Tangent	Linn County	M/P	\$79,000	Modernization
T20	Old Hwy 34 Sidewalks	Old Hwy 34	Looney Ln east to UGB	Install curb, gutter, and sidewalks on the south side. Install on north side between Looney Ln and approximately 500' east of railroad tracks	City of Tangent	ODOT	M/P	\$881,000	Modernization
T22	Tangent Dr Sidewalks	Tangent Dr	Hwy 99E east to UGB	Install curb, gutter, and sidewalks on both sides	City of Tangent	Linn County	M/P	\$515,000	Modernization
T32	Tangent Dr Rail Crossing Bike/Ped Improvements	Tangent Dr	Tangent Dr Rail Crossing	Improvements to Ped/Bike rail crossing facilities	City of Tangent	Linn County / Railroad	B/P	\$500,000	Pedestrian Crossing Improvement

#	Project Name	Roadway or Trail	Location	Description	City/County (Area)	Jurisdiction	Mode	Cost	Project Type
T33	Birdfoot Dr Rail Crossing Bike/Ped Improvements	Birdfoot Dr	Birdfoot Dr Rail Crossing	Improvements to Ped/Bike rail crossing facilities	City of Tangent	City of Tangent / Railroad	B/P	\$500,000	Pedestrian Crossing Improvement
T34	Old Hwy 34 Rail Crossing Bike/Ped Improvements	Old Hwy 34	Old Hwy 34 Rail Crossing	Improvements to Ped/Bike rail crossing facilities	City of Tangent	ODOT / Railroad	B/P	\$500,000	Pedestrian Crossing Improvement
Linn County Projects									
LC1	Closure of Columbus St Hwy 34 Access	Columbus St	Columbus St/Hwy 34	Closure of Columbus St to HWY 34 and redirecting traffic to Seven Mile Lane	Linn County	ODOT	M		Intersection Safety Improvement
LC2	Seven Mile Ln Improvements	Seven Mile Ln	Columbus St to I-5 Bridge	Improvement of Seven Mile Lane from Columbus to I-5 bridge	Linn County	Linn County	M/B/P	\$3,000,000	Modernization
LC6	Truax Creek Bridge Replacement	Old Salem Rd	Truax Creek	Extend curb, gutter and sidewalk on west side and bicycle lanes on both sides. Pavement preservation for 200ft in conjunction with Truax Creek bridge replacement. This is only the AAMPO funded portion of larger bridge replacement project.	Linn County	Linn County	M/B/P	\$281,000	Modernization
LC7	Seven Mile Ln/Hwy 34 Signal	Seven Mile Ln/Hwy 34	Seven Mile Ln/Hwy 34	Add traffic signal	Linn County	ODOT	M	\$2,000,000	Intersection Capacity Improvement
LC8	Clover Ridge Rd Improvements	Clover Ridge Rd	Knox Butte Rd to AAMPO Boundary	Clover Ridge Road going north from Knox Butte Road with ODOT's closure of Century Drive	Linn County	Linn County	M/B/P	\$2,000,000	Modernization
LC10	Tangent Dr Improvements	Tangent Dr	99E to City Limits	Add curb, gutter, sidewalk	Linn County	City of Tangent	M/P	\$1,200,000	Modernization
LC13	Grand Prairie Road Bridge Widening	Grand Prairie Rd	I-5 Bridge	Widen Bridge to provide safe passage for Bicycles and Pedestrians	Linn County	Linn County	M/B/P	\$2,000,000	Bridge Replacement
LC16	Goldfish Farm Rd Bridge Replacement	Goldfish Farm Rd	Cox Creek	Bridge Replacement and Widening	Linn County	Linn County	M/B/P	\$400,000	Bridge Replacement

#	Project Name	Roadway or Trail	Location	Description	City/County (Area)	Jurisdiction	Mode	Cost	Project Type
LC17	Clover Ridge Road Bridge Replacement	Clover Ridge Road	Truax Creek	Widen and replace bridge to include sidewalks and bike lanes and stormwater treatment	Linn County	Linn County	M/B/P	\$1,500,000	Bridge Replacement
LC19	Queen Avenue ADA Transition Requirements	Queen Avenue	Queen Ave to Riverside Drive	Curb, gutter sidewalk and ADA improvements	Linn County /City of Albany	City of Albany	M/P	\$1,500,000	Modernization
City of Millersburg Projects									
M1	Old Salem Road ADA Transition Improvements	Old Salem Road	City of Albany to Duraflake Entrance	Add Curb Gutter and Sidewalk and ADA improvements to meet current ADA Requirements	City of Millersburg	Linn County	M/P	\$2,000,000	Modernization
M2	Woods Rd Reconstruction Phase 1	Woods Rd			City of Millersburg	City of Millersburg	M/B/P	\$750,000	Modernization
M3	Woods Rd Reconstruction Phase 2	Woods Rd			City of Millersburg	City of Millersburg	M/B/P	\$750,000	Modernization
M8	Old Salem Rd Sidewalk and Bicycle Improvements	Old Salem Rd			City of Millersburg	Linn County	B/P	\$375,000	Sidewalk Infill
M9	Morning Star Road Reconstruction - Urban Conversion	Morningstar Rd			City of Millersburg	City of Millersburg	M/B/P	\$650,000	Modernization

Source: DKS Associate

References

-
- ⁱ US Census Bureau, Center for Economic Studies
- ⁱⁱ US Census Bureau, American Community Survey, 2009-2013 5-Year Estimates: Table B01003
- ⁱⁱⁱ US Census Bureau, 2000 US Census Summary File 1: Table P012; US Census Bureau, American Community Survey, 2009-2013 5-Year Estimates: Table B01001
- ^{iv} US Census Bureau, American Community Survey, 2009-2013 5-Year Estimates: Table C17003
- ^v US Census Bureau, American Community Survey, 2009-2013 5-Year Estimates: Table B03002
- ^{vi} Guidance is still being developed for implementation of performance-based planning requirements put in place by MAP-21
- ^{vii} *Albany Area Regional Transportation Plan Technical Memorandum #4: Existing Conditions*, DKS Associates, August 10 2015
- ^{viii} 2015 ODOT Bridge Condition Report, Oregon Department of Transportation, 2015
- ^{ix} *Albany Transportation System Plan*, Kittelson & Associates, Inc., February 2010. Traffic volumes collected in May and June of 2004.
- ^x *2000 Highway Capacity Manual*, Transportation Research Board, Washington DC, 2000.
- ^{xi} *Albany Area Regional Transportation Plan Technical Memorandum #4: Existing Conditions*, DKS Associates, August 10 2015
- ^{xii} 2013 Traffic Volumes on State Highways, Oregon Department of Transportation, 2013.
- ^{xiii} Trends at Automatic Traffic Recorder Stations, Oregon Department of Transportation, 2013.
- ^{xiv} *Highway Over-dimension Load Pinch Points Study*, Oregon Department of Transportation, 2015
- ^{xv} *Albany Area Regional Transportation Plan Technical Memorandum #4: Existing Conditions*, DKS Associates, August 10 2015
- ^{xvi} *2013 State Highway Crash Rate Tables*, Oregon Department of Transportation, October 2014.
- ^{xvii} 2014 On-State Top 10% SPIS Groups Table, Oregon Department of Transportation, Region 2, January 2015.
- ^{xviii} *Central Willamette Valley ITS Plan*, DKS Associates and IBI Group, December 2010.
- ^{xix} ^{xix} *Analysis Procedures Manual Version 2*, Oregon Department of Transportation, June 2015.
- ^{xx} *Albany Area Regional Transportation Plan Technical Memorandum #4: Existing Conditions*, DKS Associates, August 10 2015
- ^{xxi} *Analysis Procedures Manual Version 2*, Oregon Department of Transportation, June 2015.
- ^{xxii} *Federal Aviation Administration Airport Master Record Form 5010-1*, Federal Aviation Administration, June 25, 2015.
- ^{xxiii} *Albany Municipal Airport: Airport Master Plan Report 2000-2020*, City of Albany, 2002.
- ^{xxiv} *Albany Municipal Airport: Airport Master Plan Report 2000-2020*, City of Albany, 2002.
- ^{xxv} *Eugene Airport Master Plan Update*, Mead & Hunt, February 2010. (<https://www.eugene-or.gov/1060/Master-Plan-Update>) Accessed March 3, 2016.
- ^{xxvi} *National Pipeline Mapping System Public Map Viewer*, Pipeline and Hazardous Materials Safety Administration. 2012
- ^{xxvii} *Memorandum: CALM Input Data Development – Task 3.1 Process and Technical Procedures*, prepared by DKS Associates, June 19, 2014
- ^{xxviii} *Memorandum: CALM Input Data Development – Task 3.1 Process and Technical Procedures*, prepared by DKS Associates, June 19, 2014.
- ^{xxix} *Memorandum: CALM Input Data Development – Task 3.1 Process and Technical Procedures*, prepared by DKS Associates, June 19, 2014.
- ^{xxx} *Albany Area Regional Transportation Plan Draft Technical Memorandum #7 Future Forecasting*, DKS Associates, December 14, 2015
- ^{xxxi} *Albany Area Regional Transportation Plan Draft Technical Memorandum #7 Future Forecasting*, DKS Associates, December 14, 2015
- ^{xxxii} *Albany Area Regional Transportation Plan Draft Technical Memorandum #8 Future Transportation Conditions and Needs*, DKS Associates, December 14, 2015
- ^{xxxiii} *Memorandum: Albany Area Metropolitan Planning Organization Regional Transportation Plan DRAFT Technical Memorandum #4: Future Transportation Conditions and Needs*, prepared by DKS Associates, December 14, 2015.

^{xxxiv} *Memorandum: Albany Area Metropolitan Planning Organization Regional Transportation Plan DRAFT*
Technical Memorandum #3: Plan Goals and Policies, prepared by DKS Associates, December 11, 2015
^{xxxv} Technical Advisory Committee (TAC) Meeting on December 16, 2015