2018 Linn County Transportation System Plan: Volume 2

April 2018

Linn County
Transportation System Plan

Prepared for:

Linn County

Oregon Department of Transportation

Prepared by:

DKS Associates

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Linn County

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A special acknowledgement goes out to the Linn County residents, property owners, and visitors who attended community workshops or submitted comments, and to the Oregon Department of Transportation, which financed the project and provided invaluable staff support.

Volume 2 Contents

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Section A:

Glossary

Glossary

- **Access Management:** Access management is a broad set of techniques that balance the need to provide for efficient, safe, and timely travel with the ability to allow access to individual destinations. Measures may include but are not limited to restrictions on the type and amount of access to roadways, and use of physical controls such as signals and channelization including raised medians, to reduce impacts of approach road traffic on the main facility.
- **Alternative Modes:** Transportation alternatives other than single-occupant automobiles such as rail, transit, bicycles and walking.
- **Aspirational Projects:** Projects that are not reasonably likely to be funded during the 20-year planning horizon, but do address an identified problem and are supported by the county and ODOT.
- **Capacity:** The maximum number of vehicles or individuals that can traverse a given segment of a transportation facility with prevailing roadway and traffic conditions.
- **Constrained Projects:** Constrained projects are those projects that the county and ODOT believe are reasonably likely to be funded during the 20-year planning horizon based on the constrained funding threshold established through county and ODOT funding analysis.
- **Level of Service (LOS):** LOS is a "report card" rating (A through F) based on the average delay experienced by vehicles at the intersection. LOS A, B, and C indicate conditions where traffic moves without significant delays over periods of peak hour travel demand. LOS D and E are progressively worse operating conditions. LOS F represents conditions where average vehicle delay is excessive and demand exceeds capacity, typically resulting in long queues and delays.
- **Local Streets:** These roads provide more direct access to residences without serving through traffic. These roadways are often lined with homes and are designed to serve lower volumes of traffic.
- **Major Collectors:** These roads are intended to serve local traffic traveling to and from principal arterial or minor arterial roadways. These roadways provide greater accessibility to neighborhoods, often connecting to major activity generators and providing efficient through movement for local traffic.
- **Minor Collectors:** These roads often connect the neighborhoods to the major collector roadways. These roadways serve as major neighborhood routes and generally provide more direct access to properties or driveways than arterial or major collector roadways.
- **Minor Arterials:** These roads are intended to move traffic between principal arterials and major collector roadways. These roadways generally experience higher traffic volumes and often act as a corridor connecting many parts of the county.
- **Mobility Targets:** The level of congestion the corresponding jurisdiction has defined as acceptable. Mobility targets are in the form of LOS or v/c ratios.
- **Multi-Modal:** Involving several modes of transportation including bus, rail, bicycle, motor vehicle, etc.
- **Oregon Highway Plan (OHP):** The document that establishes long range policies and investment strategies for the state highway system in Oregon.

- **Peak Period or Peak Hour:** The period of the day with the highest number of travelers. This is normally between 4-6 p.m. on weekdays.
- **Principal Arterial Streets:** These are state roadways. These roadways serve the highest volume of motor vehicle traffic and are primarily used for longer distance regional trips.
- **Project Advisory Committee (PAC):** A committee comprised of agency technical staff that reviewed and commented on each memorandum and met with the project team at key stages during the project. This group helped the project team find agreement on project issues and alternatives.
- **Right-Of-Way (ROW):** A general term denoting publicly-owned land or property upon which public facilities and infrastructure is placed.
- **Safety Priority Index System (SPIS):** An indexing system used by Oregon Department of Transportation to prioritize safety improvements based on crash frequency and severity on state facilities.
- **Shared-Use Path:** Off-street route (typically recreationally focused) that can be used by several transportation modes, including bicycles, pedestrians and other non-motorized modes (i.e. skateboards, roller blades, etc.).
- **Transportation Demand Management (TDM):** A policy tool as well as any action that removes single occupant vehicle trips from the roadway network during peak travel demand periods.
- **Transportation Impact Analysis (TIA):** A study that evaluates the potential impacts a project may have on the transportation system, and determines mitigations required to meet transportation standards. These are necessary for projects to be approved (e.g., proposed developments, roadway extensions, zone changes).
- **Transportation System Management (TSM):** Management strategies such as signal improvements, traffic signal coordination, traffic calming, access management, local street connectivity, and intelligent transportation systems.
- **Transportation System Management and Operations (TSMO):** Strategies and policies that work towards improving mobility through cost-effective methods, and can be categorized as transportation system management or transportation demand management.
- **Transportation System Plan (TSP):** Is a comprehensive plan that is developed to provide a coordinated, seamless integration of continuity between modes at the local level as well as integration with the regional transportation system.
- **Urban Growth Boundary (UGB):** The regional boundary that encompasses zoning designations in an urban area.
- **Volume-to-capacity (v/c) ratio:** A v/c ratio is a decimal representation (between 0.00 and 1.00) of the proportion of capacity that is being used at a turn movement, approach leg, or intersection. The ratio is the peak hour traffic volume divided by the hourly capacity of a given intersection or movement. A lower ratio indicates smooth operations and minimal delays. A ratio approaching 1.00 indicates increased congestion and reduced performance.

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Section B:

Tech Memo 1: Public and Stakeholder Involvement Strategy

The contents of Volume 2 represent an iterative process in the development of the TSP. Refinements to various plan elements occurred throughout the process as new information was obtained. In all cases, the contents of Volume 1 supersede those in Volume 2.

MEMORANDUM #1

DATE: October 29, 2015

TO: Linn County TSP Project Management Team

FROM: Carl D. Springer, DKS Associates
Julie Sosnovske, DKS Associates

SUBJECT: **Linn County Transportation System Plan |** P14180-010
Technical Memorandum #1: Public and Stakeholder Involvement Strategy

Linn County has recognized that citizen involvement is necessary in making wise and legitimate decisions through its Comprehensive Plan. The following strategy reflects the County's Comprehensive Plan policies regarding citizen involvement and provides specific actions for engaging citizens and stakeholders in the Transportation System Plan (TSP) development process.

The county will involve the public and stakeholders primarily through a series of committee meetings, community workshops, stakeholder interviews, and work sessions with regional partners and elected officials. In addition, project information will be distributed through a variety of media, including a project website. The following sections describes each of these outreach mechanisms. A milestone schedule showing the public process is attached.

Project Website

The consultant team will develop and maintain a project website dedicated to the TSP update (LinnCountyTSP.org). It will include key project information, including a brief overview of the project, meeting dates and summaries, other public involvement opportunities, and project materials. The website will also provide an opportunity for public comments and questions. The website will be updated regularly to include new project materials as well as responses to frequently asked questions.

Project Advisory Committee

A project advisory committee will inform and guide the plan. The committee meetings will be held at locations throughout the county, with the first committee meeting likely to be at either the Linn County Courthouse or Linn County Fairgrounds, in Albany. The location of future committee meetings will be determined at the first such meeting. The county will not advertise for it, but the PAC meetings will be open for public attendance.

Project Advisory Committee (PAC) – The primary function of the PAC will be to review drafts and provide comments on technical and regulatory memorandums/reports, as well as provide recommendations for the TSP, acting as community representatives. This committee will consist of representatives from affected agencies and represent a wide array of interests, including: Linn County roads and planning and building departments, Linn County Planning Commission, the Cities of Albany, Halsey, Sweet Home, Tangent, Harrisburg, Millersburg, Mill City, Scio and Brownsville, a transit representative, the Oregon Department of Transportation, and others (see Table 1).

The PAC is scoped to meet six times throughout the plan development process.

- The first meeting will provide a project orientation, an introduction to transportation planning and begin the discussion of the goals and objectives that best describe how the transportation system should be developed and managed in Linn County.
- The second meeting will be a review and discussion of existing and future transportation conditions, with a discussion about developing alternatives to meet the existing and future deficiencies identified.
- The third meeting will discuss how transportation solutions will be identified and updated standards to manage the transportation system.
- In the fourth meeting, the PAC will review and discuss potential transportation solutions.
- The fifth meeting will be a review and discussion of projects that are expected to be funded versus not funded.
- The final meeting will be a review and discussion of the draft TSP prior to beginning the public hearings process.

Table 1: Project Advisory Committee Roster

Name	Affiliation
Chuck Knoll	LC Road Department
Darrin Lane	LC Road Department
Alyssa Boles	LC Planning and Building
Robert Wheeldon	LC Planning and Building
Judge Roark	LC Planning Commission
Stanley Boshart	LC Planning Commission
Dan Fricke	ODOT
Ron Irish	City of Albany
Ronda Fischer	City of Halsey
Joe Graybill	City of Sweet Home
Georgia Edwards	City of Tangent
Brian Latta	City of Harrisburg
Barbara Castillo	City of Millersburg
Scott Cook	City of Mill City
City Manager	City of Scio
Scott McDowell	City of Brownsville
Teresa Conley	Oregon Cascades West COG
Charlie Mitchell	Cascade West Area Commission on Transportation

Coordination with Regional Partners

Up to three presentations will be make to the Cascades West Area Commission on Transportation ("ACT") at key milestones in the work process, to be determined as the work progresses. Feedback from the ACT will be incorporated into the study recommendations, as directed by the PMT.

Community Workshops

Two community workshop event series will be held during the project at up to three locations throughout the county, including Lebanon (south/east part of county), Albany/Millersburg (northwest part of county), and Mill City (northeast part of county) The first meeting series will introduce the TSP project and obtain input regarding existing and future transportation needs and interests, as well as key areas of interest for inclusion in the goals and objectives. The second meeting series will obtain input on potential solutions to address transportation needs.

Advertisement of town hall meetings will be through a project website, the County's website, and media notices in local newspapers. The county may supplement advertising through the local radio station, and posters/flyers displayed in public areas or at other community events.

On-Call Meeting Support

The consultant is authorized to assist the County with support for a limited number of additional meetings, including preparation of meeting materials, making presentations and/or recording public feedback at key milestones during the project, as determined by County staff.

Elected Officials Workshops and Briefings

The County Board of Commissioners and Planning Commissioners of Linn County will engage in the TSP development process through a series of Planning Commission work sessions and one Planning Commission update briefing. The initial Planning Commission briefing will provide an orientation to the TSP process and opportunity for officials to offer direction. The work sessions will gain input on: 1) existing/future conditions and the goals, and objectives, and 2) potential transportation solutions. The work sessions will follow each of the two community workshops to share public input offered at each project milestone.

County staff will brief the Board of County Commissioners (BOCC) periodically. These briefings are likely to occur at similar intervals as the Planning Commission work sessions.

Stakeholder Interviews

Stakeholder interviews will be conducted at two key milestones during the project. Up to ten stakeholder interviews will be conducted each time, with interview questions oriented toward transportation needs and concerns in Linn County. The Project Management Team will develop and review the questions to be asked during the interviews. A summary of each series of interviews will be prepared, including any recommendations for consideration in the TSP.

Engaging Seniors, Non-English Speakers, and Low Income Populations

As part of the outreach to engage citizens and stakeholders in the TSP project, the county will make special efforts to involve minority and low income groups within the county.

According to the 2010 Census, nearly 91% of the population of Linn County is Caucasian and nearly 8% of the population is of Hispanic or Latino origin. In addition, is it estimated that almost 18% of individuals within Linn County were below the poverty line in 2013, which is above average for Oregon.

Given the considerable size of the Hispanic or Latino community in Linn County, written materials and translation service will be made available in Spanish upon request. In addition, the county will post project advertisements in locations where Hispanic or Latino community members are likely to see them.

To assist those that cannot drive, community workshops will be at locations accessible via transit, walking or biking when feasible given the meeting location. The county will provide downloadable materials on the project website. Hard copies of project documents will be available upon request for those without internet access.

To help engage senior citizens, the county will post project advertisements in locations where seniors will be likely to see them. Such locations may include drugstores, grocery stores, and retirement and assisted living communities.

Distribution and Review of Work Products

The county will email project work products directly to PAC members, and the consultant will post them to the project website for access by the general public. PAC members will be able to comment directly through regular committee meetings. The general public will be able to comment during the public comment period at the end of PAC meetings, at community workshops, and through the project website. The project website will facilitate public input by including a comment mapping feature. The project team will review comments input through the website and include them as part of the project record of public comments.

Milestone Schedule

	Launching the Study		Taking Stock		Developing System Solutions		Drafting Plans	Enacting Plan	
Stage	**Launching the Study**		**Taking Stock**		**Developing System Solutions**		**Drafting Plans**	**Enacting Plan**	
Tasks	**Tasks 1 & 2** Develop Study Process Plans	**Task 3** Plans, Goals, Policies and Performance Measures	**Task 4** Existing System Gaps and Deficiencies	**Task 5** Future Transportation Conditions and Needs	**Task 6** Transportation Standards	**Task 7** Transportation Solutions	**Task 8** Draft Plans and Code Amendments	**Task 9** Adoption Hearings	**Task 10** Project Summary and Closeout
Key Issues	How do we best engage stakeholders? What do community members and employees care about? What do employers need to succeed?		What are the long-term values and aspirations of the County? How do we know we are making good decisions?		What changes to our system design and performance standards could better achieve our objectives? What investments have the most value towards meeting future needs?		How do recommended solutions and strategic investments effect our current plans and policies? What changes are necessary for implementation?	Prepare final revisions to TSP for use in the adoption process. Project close out and records transfer to County and ODOT	
Activities	Build rosters for public outreach Review relevant past plans, policies and regulations Develop initial goals and policies		Assemble system operations data Review how multimodal systems work today Prepare 2040 travel forecasts Evaluate 2040 multimodal system conditions		Review transportation facility design standards and guidelines Review how system performance is measured and what standards are applied Identify multimodal solutions that meet transportation system needs and respond to goals and policies		Develop format and document elements of TSP Develop necessary amendments to City plans and regulations that are required to implement TSP Prepare three draft versions of the TSP for review and discussion	Confirm timeframes and reports that are required for TSP adoption Prepare staff reports and notices of intent to adopt TSP Attend Planning Commission hearings Attend City Council hearings Revise TSP based on PC and CC feedback to prepare Adopted Final TSP Prepare summary of findings for TSP	
Public Outreach Activities	P PMT Meeting	PC PAC Comm. S Stakeholder Interviews		P PMT Meeting PC PAC Comm. C Community Workshop #1	P PMT Meeting PC PAC Comm. B Joint PC/BOC Briefing	P PMT Meeting PC PAC Comm. C Community Workshop #2 B Joint PC/BOC Briefing S Stakeholder Interviews	P PMT Meeting PC PAC Comm.	H Planning Commission Hearings H Board of County Commissioners Hearings	

Overview of Linn County Transportation System Plan Process and Public Involvement

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Section C:

Tech Memo 2: Plan Review Summary

The contents of Volume 2 represent an iterative process in the development of the TSP. Refinements to various plan elements occurred throughout the process as new information was obtained. In all cases, the contents of Volume 1 supersede those in Volume 2.

MEMORANDUM #2

DATE: January 28, 2016

TO: Linn County TSP Project Management Team

FROM: Carl D. Springer, PE, PTOE - DKS Associates
Julie Sosnovske, PE - DKS Associates

SUBJECT: Linn County Transportation System Plan | P14180-010
Technical Memorandum #2 - Plan Review Summary

This memorandum summarizes planning documents, policies, and regulations that are applicable to the 2015 Linn County Transportation System Plan (TSP) update (see Attachment A for a complete list). The County's current TSP will serve as the foundation for the update process, upon which new information obtained from system analysis and stakeholder input will be applied to address changing transportation needs through the year 2035. As new strategies for addressing transportation needs are proposed, compliance and coordination with the plans, policies, and regulations described in this document will be required.

Transportation System Planning in Oregon

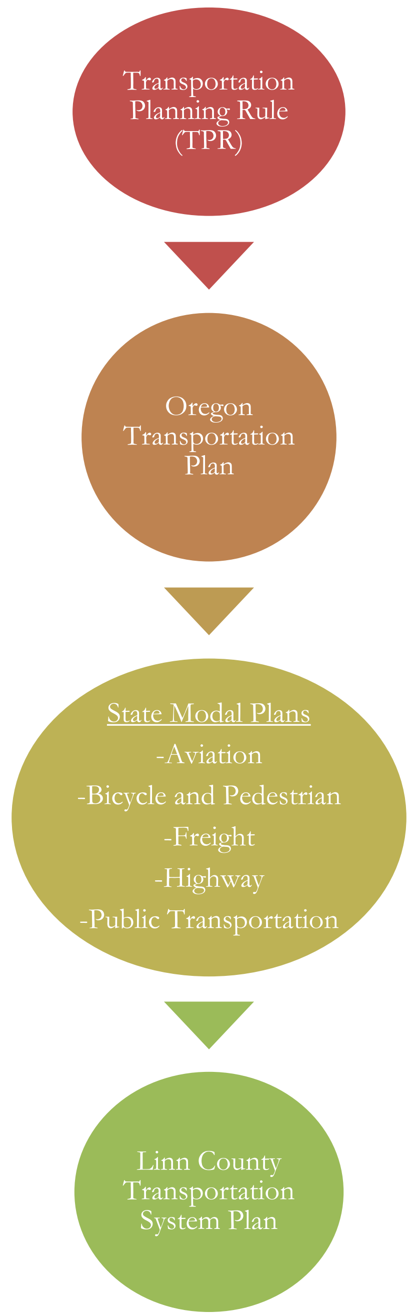
Transportation system planning in Oregon is required by Statewide Planning Goal 12 – Transportation.[1] The Transportation Planning Rule (TPR), OAR 660-012, describes how to implement Statewide Planning Goal 12.[2]

By implementing Statewide Planning Goal 12 (Transportation), the TPR promotes the development of safe, convenient, and economic transportation systems that are designed to reduce reliance on the automobile. Key elements include direction for preparing, coordinating, and implementing transportation system plans. In particular, OAR 660-012-0060 addresses amendments to plans and land use regulations and includes measures to be taken to ensure allowed land uses are consistent with the identified function and capacity of existing and planned transportation facilities. This rule includes criteria for identifying significant effects of plan or land use regulation amendments on transportation facilities, actions to be taken when a significant effect would occur, identification of planned facilities, and coordination with transportation facility providers.

[1] Statewide Planning Goals: http: //www.oregon.gov/LCD/goals.shtml
[2] Transportation Planning Rule: http: //arcweb.sos.state.or.us/rules/OARS_600/OAR_660/660_012.html

Recent amendments to the TPR (effective January 1, 2012) include new language in 660-012-060 that allows a local government to exempt a zone change from the "significant effect" determination if the proposed zoning is consistent with the comprehensive plan map designation and the TSP In order to implement these recent amendments to the TPR, the plan amendment language in the county's zoning code may need to be revised during the implementation phase of this TSP update.

OAR 660-012-0045 requires each local government to amend its land use regulations to implement the TSP. It also requires local government to adopt land use or subdivision ordinance regulations consistent with applicable federal and state requirements, to protect transportation facilities, corridors and sites for their identified functions. This policy is achieved through a variety of measures, including access control measures, standards to protect future operations of roads, and expanded notice requirements and coordinated review procedures for land use applications. Local implementation measures also include processes to apply conditions of approval to development proposals and regulations ensuring that amendments to land use designations, densities, and design standards are consistent with the functions, capacities, and performance standards of facilities identified in the TSP.



Specifically, the TPR requires:

- The state to prepare a TSP, referred to as the Oregon Transportation Plan (OTP); and
- Counties and cities to prepare local TSPs that are consistent with the OTP.

As the guiding document for local TSPs, the OTP[3] establishes goals, policies, strategies and initiatives that address the core challenges and opportunities facing transportation in Oregon. The goals and policies are further implemented by various modal plans, including the Aviation System Plan, Bicycle and Pedestrian Plan, Freight Plan, Highway Plan, Public Transportation Plan, Rail Plan, Transportation Safety Action Plan and the Transportation Options Plan. Each of the OTP's seven goals are defined by more specific policies and strategies:

OTP Goal 1, Mobility and Accessibility, aims to enhance Oregon's quality of life and economic vitality by providing a balanced, efficient, cost-effective and integrated multimodal

[3] Oregon Transportation Plan: http://www.oregon.gov/ODOT/TD/TP/OTP.shtml

transportation system that ensures appropriate access to all areas of the state, the nation and the world, with connectivity among modes and places.

- **Policy 1.1: Development of an Integrated Multimodal System.** It is the policy of the State of Oregon to plan and develop a balanced, integrated transportation system with modal choices for the movement of people and goods.

  - **Strategy 1.1.1:** Plan and develop a multimodal transportation system that increases the efficient movement of people and goods for commerce and production of goods and services that is coordinated with regional and local plans. Require regional and local transportation plans to address existing and future centers of economic activity, routes and modes connecting passenger facilities and freight facilities, intermodal facilities and industrial land, and major intercity and intra-city transportation corridors and supporting transportation networks.

  - **Strategy 1.1.2:** Promote the growth of intercity bus, truck, rail, air, pipeline and marine services to link all areas of the state with national and international transportation facilities and services. Increase the frequency of intercity services to provide travel options.

  - **Strategy 1.1.4:** In developing transportation plans to respond to transportation needs, use the most cost-effective modes and solutions over the long term, considering changing conditions and based on the following:

    - Managing the existing transportation system effectively.

    - Improving the efficiency and operational capacity of existing transportation infrastructure and facilities by making minor improvements to the existing system.

    - Adding capacity to the existing transportation system.

    - Adding new facilities to the transportation system.

- **Policy 1.2: Equity, Efficiency and Travel Choices.** It is the policy of the State of Oregon to promote a transportation system with multiple travel choices that are easy to use, reliable, cost-effective and accessible to all potential users, including the transportation disadvantaged.

  - **Strategy 1.2.1:** Develop and promote inter and intra-city public transportation.

  - **Strategy 1.2.2:** Better integrate, locate, and design passenger and freight multimodal transportation facilities and connections to expedite travel and provide travel options. Locate and design transportation facilities to connect with other modes.

- **Policy 1.3: Relationship of Interurban and Urban Mobility.** It is the policy of the State of Oregon to provide intercity mobility through and near urban areas in a manner which minimizes adverse effects on urban land use and travel patterns and provides for efficient long distance travel.

- **Strategy 1.3.1:** Use a regional planning approach and inter-regional coordination to address problems that extend across urban growth boundaries.
- **Strategy 1.3.2:** In coordination with affected jurisdictions, develop and manage the transportation network so that local trips can be conducted primarily on the local system and the interstate and statewide facilities can primarily serve intercity movement and interconnect the systems. Develop, maintain and improve parallel roadways, freight rail, transit, bus rapid transit, commuter rail and light rail to provide alternatives to using intercity highways for local trips where possible.

> ***What this means for the Linn County TSP Update:*** *The TSP update will promote the growth of existing and future centers of economic activity by planning for a comprehensive multi-modal transportation system. The TSP will address routes and modes connecting passenger facilities and freight facilities, intermodal facilities and industrial land, and major intercity and intra-city transportation corridors and the transportation networks that support these corridors. The TSP will promote the most cost-effective modes and solutions over the long term that are easy to use, reliable, and accessible to all potential users, including the transportation disadvantaged.*

OTP Goal 2, Management of the System, aims to improve the efficiency of the transportation system by optimizing the existing transportation infrastructure capacity with improved operations and management.

- **Policy 2.1: Capacity and Operational Efficiency.** It is the policy of the State of Oregon to manage the transportation system to improve its capacity and operational efficiency for the long term benefit of people and goods movement.
  - **Strategy 2.1.1:** Promote transportation demand management and other transportation system operations techniques that reduce peak period travel, help shift traffic volumes away from the peak period and improve traffic flow. Such techniques may include high occupancy vehicle lanes with express transit service, truck-only lanes, van/carpools, park-and-ride facilities, parking management programs, telework, flexible work schedules, peak period pricing, ramp metering, traveler information systems, traffic signal optimization, route diversion strategies, incident management and enhancement of rail, transit, bicycling and walking.
  - **Strategy 2.1.2:** Protect the integrity of statewide transportation corridors and facilities from encroachment by such means as managing access to state highways, limiting interchanges, creating safe rail crossings and controlling incompatible land use around airports, ports, pipelines and other intermodal passenger and freight facilities.
  - **Strategy 2.1.3:** Use advanced traveler information devices, incident management, speed management, improvements to signaling systems and other technologies to extend the efficiency, safety and capacity of transportation systems. Develop protocols and implement methods for alternate routing to respond to incidents.
  - **Strategy 2.1.4:** Enhance efficiency and reduce conflicts among transportation users, for example by reducing bottlenecks and geometric constraints, and improving or removing modal crossings. Provide for a network of arterials and highways to efficiently move goods and services while enhancing safety and community movements on local streets.

Provide for signal prioritization and road patterns that support public transit. Support rail reconfiguration and additional tracks that benefit passenger and freight movements.

What this means for the Linn County TSP Update: *The TSP update will prioritize travel demand management and transportation system operations techniques that fine tune existing systems and policies over costly major roadway capacity improvements.*

OTP Goal 3, Economic Vitality, promotes the expansion and diversification of Oregon's economy through the efficient and effective movement of people, goods, services and information in a safe, energy-efficient and environmentally sound manner.

- **Policy 3.2 – Moving People to Support Economic Vitality.** It is the policy of the State of Oregon to develop an integrated system of transportation facilities, services and information so that intrastate, interstate and international travelers can travel easily for business and recreation.
  - **Strategy 3.2.2:** In regional and local transportation system plans, support options for traveling to employment, services and businesses. These include, but are not limited to, driving, walking, bicycling, ridesharing, public transportation and rail.
  - **Strategy 3.2.4:** Address scenic values in state, regional and local planning, improvements and maintenance. Support state and federal Scenic Byways and Tour Routes and connections to parks and recreation areas.
  - **Strategy 3.2.5:** Promote tourism via air, bicycles, motor vehicles, rail and ships. Support connections to recreational trails.
- **Policy 3.3 – Downtowns and Economic Development.** It is the policy of the State of Oregon to provide transportation improvements to support downtowns and to coordinate transportation and economic development strategies.
  - **Strategy 3.3.1:** Coordinate private and public resources to provide transportation improvements and services to help stimulate active and vital downtowns, economic centers and main streets.

What this means for the Linn County TSP Update: *The TSP update will identify projects that support a prosperous and competitive economy by preserving and enhancing business opportunities, and ensuring the efficient movement of people and goods to recreational, employment, housing and other destinations in Linn County.*

OTP Goal 4, Sustainability, seeks to provide a transportation system that meets present needs without compromising the ability of future generations to meet their needs from the joint perspective of environmental, economic and community objectives. This system is consistent with, yet recognizes differences in, local and regional land use and economic development plans. It is efficient and offers choices among transportation modes. It distributes benefits and burdens fairly and is operated, maintained and improved to be sensitive to both the natural and built environments.

- **Policy 4.1 – Environmentally Responsible Transportation System.** It is the policy of the State of Oregon to provide a transportation system that is environmentally responsible and encourages conservation and protection of natural resources.

- **Strategy 4.1.1:** Practice stewardship of air, water, land, wildlife and botanical resources. Take into account the natural environments in the planning, design, construction, operation and maintenance of the transportation system. Create transportation systems compatible with native habitats and species and help restore ecological processes, considering such plans as the Oregon Conservation Strategy and the Oregon Plan for Salmon and Watersheds. Where adverse impacts cannot reasonably be avoided, minimize or mitigate their effects on the environment. Work with state and federal agencies and other stakeholders to integrate environmental solutions and goals into planning for infrastructure development and provide for an ecosystem-based mitigation process.

- **Strategy 4.1.2:** Encourage the development and use of technologies that reduce greenhouse gases.

- **Policy 4.3 – Creating Communities.** It is the policy of the State of Oregon to increase access to goods and services and promote health by encouraging development of compact communities and neighborhoods that integrate residential, commercial and employment land uses to help make shorter trips, transit, walking and bicycling feasible. Integrate features that support the use of transportation choices.

- **Strategy 4.3.1:** Support the sustainable development of land with a mix of uses and a range of densities, land use intensities and transportation options in order to increase the efficiency of the transportation system. Support travel options that allow individuals to reduce vehicle use.

- **Strategy 4.3.2:** Promote safe and convenient bicycling and walking networks in communities. Fill in missing gaps in sidewalk and bikeway networks, especially to important community destinations such as schools, shopping areas, parks, medical facilities and transit facilities. Enhance walking, bicycling and connections to public transit through appropriate community and main street design. Promote facility designs that encourage walking and biking.

- **Strategy 4.3.4:** Promote transportation facility design, including context sensitive design, which fits the physical setting, serves and responds to the scenic, aesthetic, historic and environmental resources, and maintains safety and mobility.

- **Strategy 4.3.5:** Reduce transportation barriers to daily activities for those who rely on walking, biking, rideshare, car-sharing and public transportation by providing: Access to public transportation and the knowledge of how to use it. Facility designs that consider the needs of the mobility-challenged including seniors, people with disabilities, children and non-English speaking populations.

What this means for the Linn County TSP Update: *The TSP update will identify solutions that support the movement of people over vehicles, and that reduce transportation barriers to daily activities for walkers, bikers and public transportation users. The solutions will be environmentally responsible and should fit the physical setting and context of the surrounding land use.*

OTP Goal 5, Safety and Security, aims to plan, build, operate and maintain the transportation system so that it is safe and secure.

- **Policy 5.1 – Safety.** It is the policy of the State of Oregon to continually improve the safety and security of all modes and transportation facilities for system users including operators, passengers, pedestrians, recipients of goods and services, and property owners.
  - **Strategy 5.1.3:** Ensure that safety and security issues are addressed in planning, design, construction, operation and maintenance of new and existing transportation systems, facilities and assets.
- **Policy 5.2 – Security.** It is the policy of the State of Oregon to provide transportation security consistent with the leadership of federal, state and local homeland security entities.
  - **Strategy 5.2.3:** Improve the evacuation and emergency response capabilities of the urban and rural transportation system.

What this means for the Linn County TSP Update: *The TSP update will develop projects that ensure the transportation system maintains and improves individual safety and security and maximizes public safety.*

OTP Goal 6, Funding the Transportation System, seeks to create a transportation funding structure that will support a viable transportation system to achieve state and local goals today and in the future.

- **Policy 6.1 – Funding Structure.** It is the policy of the State of Oregon to develop a transportation finance structure that addresses the public funding aspects of all modes and reinforces plan strategies. This structure should include provisions for flexibility in the use of new funding sources and new partnerships to achieve system integration while also protecting transportation funds for transportation purposes.
  - **Strategy 6.1.2:** Develop and maintain adequate resources for demonstrated and proven transportation needs for all transportation modes and jurisdictions.

What this means for the Linn County TSP Update: *The TSP update will include an assessment of the level of transportation funding projected to be available through the 20-year planning horizon in comparison to the cost of developing a transportation system that is able to meet the County's needs. Opportunities to establish stable funding sources will be discussed and project prioritization will consider the feasibility of funding.*

OTP Goal 7, Coordination, Communication and Cooperation, pursue coordination, communication and cooperation among transportation users, providers and those most affected by transportation activities to align interests, remove barriers and bring innovative solutions so the transportation system functions as one system.

- **Policy 7.1 – A Coordinated Transportation System.** It is the policy of the State of Oregon to work collaboratively with other jurisdictions and agencies with the objective of removing barriers so the transportation system can function as one system.

- **Strategy 7.1.1:** Examine transportation functions among and within state and local agencies and providers in order to make the delivery of transportation services and facilities more efficient. Consider consolidation of functions where it can improve efficiency, accountability and service delivery.

- **Policy 7.3 – Public Involvement and Consultation.** It is the policy of the State of Oregon to involve Oregonians to the fullest practical extent in transportation planning and implementation in order to deliver a transportation system that meets the diverse needs of the state.

  - **Strategy 7.3.1:** In all phases of decision-making, provide affected Oregonians early, open, continuous, and meaningful opportunity to influence decisions about proposed transportation activities. When preparing and adopting a multimodal transportation plan, modal/topic plan, facility plan or transportation improvement program, conduct and publicize a program for citizen, business, and tribal, local, state and federal government involvement. Clearly define the procedures by which these groups will be involved.

  - **Strategy 7.3.3:** Seek out and facilitate the involvement of those potentially affected including traditionally underserved populations.

> ***What this means for the Linn County TSP Update:*** *The TSP update will offer public involvement opportunities to all stakeholders and residents, and will coordinate with other jurisdictions and agencies to ensure the planned transportation system minimizes barriers and functions as one integrated system.*

Why does Linn County need an Updated TSP?

The County's current TSP was adopted in 2003. Since then, several regulations and requirements have been integrated or modified in the TPR, OTP, and State Modal Plans and overall driving, walking and biking habits have evolved in the county. The current effort will develop a TSP for Linn County that brings it into compliance with the TPR and more appropriately serves the existing and future transportation needs of residence, businesses, and property owners in the County.

How is the Transportation System Defined?

The following sections summarize the state and local roadway classifications and transportation-related designations for areas of Linn County derived from the identified documents. This information ultimately determines the adopted standards, regulations, and policies that apply to the transportation system in Linn County.

ODOT Classifications for State Highways in Linn County

OHP Goal 1, Policy 1A (State Highway Classification System) categorizes state highways for planning and management decisions. Within Linn County, state highways are classified as Interstate, Statewide, Regional or District Highways (see summary at the end of this section). Each classification is summarized below:

Interstate Highways provide connections to major cities, regions of the state, and other cities. A secondary function in urban areas is to provide connections for regional trips within the metropolitan area. The Interstate Highways are major freight routes and their objective is to provide mobility. The management objective is to provide for safe and efficient high-speed continuous-flow operation in urban and rural areas.

Statewide Highways typically provide inter-urban and inter-regional mobility and provide connections to larger urban areas, ports, and major recreation areas that are not directly served by Interstate Highways. A secondary function is to provide connections for intra-urban and intra-regional trips. The management objective is to provide safe and efficient, high-speed, continuous-flow operation.

Regional Highways typically provide connections and links to regional centers, Statewide or interstate Highways, or economic or activity centers of regional significance. The management objective is to provide safe and efficient, highspeed, continuous-flow operation in rural areas and moderate to high-speed operations in urban and urbanizing areas. A secondary function is to serve land uses in the vicinity of these highways. Inside STAs, local access is also a priority. Inside Urban Business Areas, mobility is balanced with local access.

District Highways are facilities of county-wide significance and function largely as county and city arterials or collectors. They provide connections and links between small urbanized areas, rural centers and urban hubs, and also serve local access and traffic. The management objective is to provide for safe and efficient, moderate to high-speed continuous-flow operation in rural areas reflecting the surrounding environment and moderate to low-speed operation in urban and urbanizing areas for traffic flow and for pedestrian and bicycle movements.

Summary of ODOT Classifications

Updates to the TSP will support the existing highway classifications and will enhance the ability of the highways in Linn County to serve their defined functions. The following summarizes the classifications of state highways in Linn County:

- I-5 (Pacific Highway, No. 1) is classified as an Interstate Highway, part of the National Highway System (NHS), a Federal Truck Route, an Oregon Freight Route, and a Reduction Review Route. Throughout Linn County, I-5 is a Tier 1 Lifeline Route.
- US 20 (Santiam Highway, No. 16) is classified as a Regional Highway. It is part of the National Highway System (NHS), except from just east of Scravel Hill Road (MP 2.88) and just west of Gore Drive (MP 11.69). It is a Federal Truck Route and a Reduction Review Route between Albany (MP 2.13) and Lebanon (MP 12.18) and between Lebanon (MP 15.78) and Sweet Home (MP 26.6). East of Sweet Home, it is considered a Scenic Byway.
- OR 99E (Albany-Junction City Highway, No. 58) is classified as a Regional Highway. It is part of the National Highway System (NHS) between I-5 (MP 0.0) and Albany City Limits (MP 0.2). It is a Federal Truck Route and a Reduction Review Route throughout Linn County and a State Freight Route between Halsey (MP 20.31) and Harrisburg (MP 28.17).
- OR 34 (Corvallis – Lebanon Highway, No. 210) is classified as a Distrist Highway between Corvallis/Linn County Line and the junction with the OR 34 Bypass, and as a Statewide Highway from the Bypass (MP 0.34) to just east of I-5 (MP 10.14). East of I-5

(MP 10.14) to Lebanon (MP 16.58), is is classified as a Regional Highway, on the National Highway System (NHS), a Federal Truck Route, and State Freight Route and a Reduction Review Route. From Corvallis east to I-5, OR 34 is a Tier 2 Lifeline Route.

- OR 34 (Corvallis-Newport Highway, No. 33) is classified as a Statewide Highway between the Linn County line (MP 56.14) and its junction with OR 34 (MP 56.80), is part of the National Highway System (NHS), an Oregon Freight Route, and a Reduction Review Route. Is it also classified by ODOT as an Expressway and a Bypass.
- OR 22 (North Santiam Highway, No. 162) is classified as a Statewide Highway, part of the National Highway Sytem (NHS), a Federal Truck Route, an Oregon Freight Route, and a Reduction Review Route.
- OR 164 (Jefferson Highway, No. 164) is classified as a District Highway.
- OR 226 (Albany-Lyons Highway, No. 211) is classified as a District Highway.
- OR 228 (Halsey-Sweet Home Highway, No. 212) is classified as a District Highway. Between Halsey (MP 0.37) and I-5 (MP 2.4), is it an Oregon Freight Route and Reduction Review Route. From just west of Brownsville (MP 2.46) to Sweet Home (MP 20.59), it is designated a Scenic Byway. Just west of Sweet Home (MP 20.58), it becomes part of the National Highway System (NHS).
- OR 126 (Clear Lake – Belknap Springs highway, No. 215), is classified as a Statewide Highway, part of the National Highway System (NHS), a Federal Truck Route, and a Reduction Review Route. It is also a Scenic Byway.

What this means for the Linn County TSP Update: *While this policy places importance on the efficient travel of through motor vehicle trips on the highways, the policy must still be balanced with other goals and objectives of the Oregon Transportation Plan to ensure its multi-modal intentions are addressed.*

State Highway Freight System: OHP Goal 1, Policy 1C addresses the need to balance the movement of goods and services with other uses. It states that the timeliness of freight movements should be considered when developing and implementing plans and projects on freight routes. Within Linn County, I-5, US 20, OR 99E, OR 22 and OR 228 are classified as Oregon Freight Routes, and I-5, US 20, OR 99E, OR 22 and OR 126 are classified as Federal Truck Routes.

What this means for the Linn County TSP Update: *Transportation solutions along I-5, US 20, OR 99E, OR 22 and OR 228 through Linn County must be accommodating to freight movement. Truck Routes require 12' travel lanes.*

Reduction Review Routes: An Administrative Rule was recently adopted to provide clear direction in the implementation of ORS 366.215. The rule requires review of all potential actions that will alter, relocate, change or realign a Reduction Review Route that could result in permanent reductions in vehicle-carrying capacity. Reduction of vehicle-carrying capacity means a permanent reduction in the horizontal or vertical clearance of a highway section, by a permanent physical obstruction to motor vehicles located on useable right-of-way subject to Oregon Transportation Commission (OTC) jurisdiction, unless such changes are supported by the Stakeholder Forum. If ODOT identifies that an action may result in a reduction of vehicle-carrying capacity, a Stakeholder Forum will be convened to help advise ODOT regarding the effect of the proposed action on the ability to move motor vehicles through a section of highway.

What this means for the Linn County TSP Update: *Transportation improvements recommended on Reduction Review Routes, including I-5, US 20, OR 34, OR 99E, OR 22, OR 228 and OR 126 will include a record of the proposed roadway dimensions and sufficient detail to allow for a review of Vehicle-Carrying Capacity during future design.*

Scenic Byways: OHP Goal 1, Policy 1D addresses the need to preserve and enhance the scenic assets of designated routes. It requires any transportation improvements along designated routes to consider the aesthetics and design elements of the project, along with safety and performance impacts. Within Linn County, OR 22, OR 228 and OR 126 are classified as Scenic Byways.

What this means for the Linn County TSP Update: *Transportation improvements recommended along US 20, OR 22, OR 228 and OR 126 through Linn County must consider aesthetics and design elements that support and are consistent with the Scenic Byway designation.*

Lifeline Routes: OHP Goal 1, Policy 1E recognizes certain routes must be maintained for emergency response in the event of an earthquake. Seismic Lifeline Routes were originally identified by local emergency coordinators in 1995. Based on the geological analysis available at the time, these routes were determined to most likely be available after a seismic event. The routes were initially used to help assess the need for retrofitting state and local bridges. ODOT has updated the list of designated routes, an effort that was completed in March of 2012; however the updates have yet to be adopted as amendments to Policy 1E.

Seismic lifeline routes were categorized into a three tier system. The Tier 1 system provides traffic flow through the state and to each region, including a contiguous network, the Tier 2 lifeline routes provide additional connectivity and redundancy to the Tier 1 system, allowing for direct access to more locations and alternate routes. The Tier 3 system provides additional connectivity and redundancy to the lifeline systems provided by Tiers 1 and 2. The lifeline routes identified in Linn County include the following:

- **Tier 1:** I-5
- **Tier 2:** OR 99E
- **Tier 3:** US 20/OR 34 west of I-5

What this means for the Linn County TSP Update: *The County can use the TSP update to support local lifeline routes to ensure their intended function is considered in system investment and management decisions.*

Linn County Classification for Roadways

To manage the roadway network, the county classified the roadways based on a hierarchy according to the intended purpose of each road. From highest to lowest intended usage, the classifications are arterials, collectors, and local streets. Roadways with a higher intended usage generally provide more efficient traffic movement (or mobility) through the county, while roadways with lower intended usage provide greater access for shorter trips to local destinations such as businesses or residences.

Rural Minor Arterials are intended to act as a corridor connecting many parts of the county and serve traffic traveling to and from state highways. These roadways provide greater accessibility, often connecting to major activity generators and provide efficient through movement for local traffic. In Linn County, 4th Avenue/Main Street/Stayton-Scio Road and Stayton-Scio Drive (between Scio and Stayton) and Diamond Hill Drive (between Harrisburg and I-5) are classified as Rural Minor Arterials.

Rural Major Collectors often connect rural neighborhoods to arterial roadways or state highways. These roadways serve as major neighborhood routes and generally provide more direct property access or driveways than arterial roadways. Examples of Rural Major Collectors include Crabtree Drive/Gilkey Road, Lacomb Drive, Upper Calapooia Drive, Columbus Street/Seven Mile Lane, Denny School Road/Oak Street/Sand Ridge Road, etc.

Rural Minor Collectors often connect rural neighborhoods to major collectors, arterials or state highways. These roadways serve as neighborhood routes and generally provide more direct property access or driveways than higher level collectors or arterials. Examples of Rural Minor Collectors include Whiskey Butte Road/Wiley Crrek Drive, Northern Drive, Sodaville/Mountain Home Road,/Spring Street/Vince Street, Gore Drive/Tennessee Road, Bell Plain Drive/Church Drive/Country Road, and Spicer Drive/Tennessee Road/Tennessee School Road.

Local Roadways provide more direct access to residences without serving through travel in Linn County. These roadways are often lined with residences and are designed to serve lower volumes of traffic.

What this means for the Linn County TSP Update: *The functional classification system for the County will be revisited for the TSP update.*

How is the Transportation System Managed?

State Highway Mobility Targets: OHP Goal 1, Policy 1F sets mobility targets for ensuring a reliable and acceptable level of mobility on the highway system. Each intersection along state highways has a mobility target requiring that the highway operate at or below a specified volume to capacity (v/c) ratio. The mobility targets shown in Table 1 are applicable to highways in Linn County (pursuant to Policy 1F, Table 6).

- **Volume to capacity (V/C) ratio:** A decimal representation (between 0.00 and 1.00) of the proportion of capacity that is being used (i.e., the saturation) at a turn movement, approach leg, or intersection. It is determined by dividing the peak hour traffic volume by the hourly capacity of a given intersection or movement. A lower ratio indicates smooth operations and minimal delays. As the ratio approaches 1.00, congestion increases and performance is reduced. If the ratio is greater than 1.00, the turn movement, approach leg, or intersection is oversaturated and will experience excessive queues and long delays.

Table 1: Highway Intersection Mobility Targets (Outside UGB's)

Highway	Highway Category	Special Designation	Highway Signalized Intersections	Unsignalized Intersections: Highway Approaches	Unsignalized Intersections: Side Street Approaches to Highway
I-5	Interstate	Freight Route	0.70 v/c	0.70 v/c	0.75 v/c
US 20	Regional	Freight Route	0.75 v/c	0.75 v/c	0.75 v/c
US 20	Regional	Non-Freight Route	0.70 v/c	0.70 v/c	0.75 v/c
OR 34	District	Freight Route	0.70 v/c	0.70 v/c	0.75 v/c
US 20	Statewide	Freight Route	0.70 v/c	0.70 v/c	0.75 v/c
OR 99E	Regional	Freight Route	0.70 v/c	0.70 v/c	0.75 v/c
OR 99E	Regional	Non-Freight Route	0.70 v/c	0.70 v/c	0.75 v/c
OR 22	Statewide	Freight Route	0.70 v/c	0.70 v/c	0.75 v/c
OR 164	District	Non-Freight Route	0.75 v/c	0.75 v/c	0.75 v/c
OR 226	District	Non-Freight Route	0.75 v/c	0.75 v/c	0.75 v/c
OR 228	District	Non-Freight Route	0.75 v/c	0.75 v/c	0.75 v/c
US 20/ OR 126	Statewide	Non-Freight Route	0.70 v/c	0.70 v/c	0.75 v/c

Source: 1999 Oregon Highway Plan, Policy 1F Revisions, Table 6

OHP Action 1F.3, of Policy 1F allows local jurisdictions to consider alternate mobility standards for state highways where it would be infeasible to meet the standards listed in Table 1 above. The alternative standards shall be clear and objective and must be related to v/c ratios. The standards must demonstrate that it would be infeasible to meet the highway mobility standards listed in Table 1 above and must be adopted as part of the local TSP. In addition, the TSP shall include all feasible actions for:

- Providing a network of local streets, collectors and arterials to relieve traffic demand on state highways and to provide convenient pedestrian and bicycle ways;
- Managing access and traffic operations to minimize traffic accidents, avoid traffic backups on freeway ramps, and make the most efficient use of highway capacity;
- Managing traffic demand, where feasible, to manage peak hour traffic loads on state highways;
- Providing alternative modes of transportation; and
- Managing land use to limit vehicular demand on state highways consistent with the Land Use and Transportation Policy (1B).

The TSP shall include a financially feasible implementation program and shall demonstrate strong public and private commitment to carry out the identified improvements and other actions. The alternate highway mobility standards will become effective only after the Transportation Commission has adopted them.

> ***What this means for the Linn County TSP Update:*** *System performance for the highways will be measured, in part, using the adopted mobility targets. The TSP update will evaluate the need for adopting alternate mobility targets for specific highway segments if there are no feasible project alternatives identified to meet the existing mobility targets.*

County Mobility Targets: Linn County has established a goals of maintaining level of service D or better throughout the County-owned arterial and collector system for intersections under their jurisdiction, as adopted in the 2003 Linn County TSP.

> ***What this means for the Linn County TSP Update:*** *County street performance will be evaluated based on a mobility target of level-of-service D for arterials and colllectors in the unincorporated portions of the county.*

Access Management on Highways: The Oregon Access Management Rule[4] (OAR 734-051) attempts to balance the safety and mobility needs of travelers along state highways with the access needs of property and business owners. ODOT's rules manage access to the state's highway facilities in order to maintain highway function, operations, safety, and the preservation of public investment consistent with the policies of the 1999 OHP. Access management rules allow ODOT to control the issuing of permits for access to state highways, state highway rights of way and other properties under the State's jurisdiction.

In addition, the ability to close existing approaches, set access spacing standards and establish a formal appeals process in relation to access issues is identified. These rules enable the State to direct location and spacing of intersections and approaches on state highways, ensuring the relevance of the functional classification system and preserving the efficient operation of state routes.

Table 2: Highway Access Spacing Standards (Rural Areas)*

Highway	ODOT Highway Number	Highway Category	AADT	Posted Speed	Spacing
I-5	1	Interstate	>5,000	Any	6 miles
US 20	16	Regional	>5,000	40-45 mph	750 ft
US 20	16	Regional	>5,000	>=55 mph	990 ft
US 20	16	Regional	<=5,000	40-45 mph	360 ft
US 20	16	Regional	<=5,000	>=55 mph	650 ft

4 Access Management Rule: http: //arcweb.sos.state.or.us/rules/OARS_700/OAR_734/734_051.html

Table 2: Highway Access Spacing Standards (Rural Areas)*

Highway	ODOT Highway Number	Highway Category	AADT	Posted Speed	Spacing
US 20/OR 126	16	Statewide	Any	Any	1,320 ft
OR 34	210	Regional	>5,000	>=55 mph	990 ft
OR 34	210	District	>5,000	40-45 mph	750 ft
OR 34	210	Statewide	>5,000	40-45 mph	990 ft
OR 34	210	Statewide	>5,000	50 mph	1,100 ft
OR 34	210	Statewide	>5,000	>=55 mph	1,320 ft
US 20/OR 34	33	District	>=5,000	>=55	990 ft
OR 99E	058	Regional	<=5,000	40-45 mph	360 ft
OR 99E	058	Regional	<=5,000	>=55 mph	650 ft
OR 22	162	Statewide	Any	>=55 mph	1,320 ft
OR 164	164	District	>5,000	>=55 mph	990 ft
OR 226	211	District	<=5,000	40-45 mph	360 ft
OR 226	211	District	<=5,000	>=55 mph	650 ft
OR 228	212	District	<=5,000	40-45 mph	360 ft
OR 228	212	District	<=5,000	>=55 mph	650 ft
OR 126	215	Statewide	<=5,000	>=55 mph	1,320 ft

Source: 1999 Oregon Highway Plan, State Highway Classification System and Appendix C, 2015.

OHP Goal 3, Policy 3A and OAR 734-051 set access spacing standards for driveways and approaches to the state highway system.[5] The standards are based on state highway classification and differ based on posted speed. The applicable standards for highways in Linn County can been seen in Table 2.

> ***What this means for the Linn County TSP Update:*** *The Linn County Planning department will not issue a building permit for development that does not meet the ODOT access spacing standards for highways shown in Table 2. Any Linn County roadways accessing ODOT facilities will also be required to meet these standards.*

[5] ODOT Access Management Standards: www.oregon.gov/ODOT/TD/TP/OHP_AM.shtml

Access Management on Local Roadways: Linn County has identified ideal intersection spacing standards for driveways or public roadways under their jurisdiction, as follows:

> **Category 4 access (applies to major and minor arterials):** offers limited access: public road access spaced at no less than every one mile; driveways spaced at no less than every 1,200 feet; no traffic signals; and no median control.
>
> **Category 5 access (applies to major and minor collectors):** offers partial access: public road access spaced at no more than every ½ mile; driveways spaced at no less than every 500 feet; traffic signals spaced at no less than every ½ miles; and no median control.

What this means for the Linn County TSP Update: *The TSP update will evaluate existing access spacing standards, and consider revisions if needed, for roadways in Linn County. Access spacing standards can help increase the safety of streets by creating an environment that matches the street functional classification and forestalling costly major capacity improvements.*

Major Projects: OHP Goal 1, Policy 1G requires maintaining performance and improving safety by improving efficiency and management before adding capacity. The intent of policy 1G and Action 1G.2 is to ensure that major improvement projects to state highway facilities have been through a planning process that involves coordination between state, regional, and local stakeholders and the public, and that there is substantial support for the proposed improvement.

What this means for the Linn County TSP Update: *The TSP update will consider project alternatives that improve or manage the existing transportation system before implementing higher cost street capacity enhancement projects.*

Projects off Highways: OHP Goal 2, Policy 2B establishes ODOT's interest in projects on local roads that maintain or improve safety and mobility performance on state roadways, and supports local jurisdictions in adopting land use and access management policies.

What this means for the Linn County TSP Update: *The TSP will include sections describing existing and future land use patterns, access management and implementation measures, and will consider solutions that reduce the need for local trips on the highways.*

Traffic Safety: OHP Goal 2, Policy 2F identifies the need for projects in the state to improve safety for all users of the state highway system through engineering, education, enforcement, and emergency services. One component of the TSP is to identify existing crash patterns and rates and to develop strategies to address safety issues. ODOT's Safety Priority Index System (SPIS) will also be used to identify potential safety problems on state highways. Proposed projects will aim to reduce the vehicle crash potential and/or improve bicycle and pedestrian safety by providing upgraded facilities that meet current standards.

What this means for the Linn County TSP Update: *The TSP update will develop projects that ensure the transportation system maintains and improves individual safety and security by maximizing the comfort and convenience of walking, biking and transit transportation options, public safety and service access.*

Alternative Passenger Modes: OHP Goal 4, Policy 4B, requires that highway projects encourage the use of alternative passenger modes to reduce local trips. The TSP will also consider ways to support and increase the use of alternative passenger modes to reduce trips on highways and other facilities.

> ***What this means for the Linn County TSP Update:*** *The TSP update will be guided by the policy and design recommendations from the Oregon Bicycle and Pedestrian Plan and Public Transportation Plan. The TSP will be consistent with, and where appropriate will reflect and/or incorporate the recommendationsfrom city TSP's and from the Linn County Coordinated Public Transit - Human Services Transportation Plan or other service providers in Linn County, and will generally consider additional solutions that will enhance multi-modal travel in Linn County.*

Transportation Demand Management: OHP Goal 4, Policy 4D, encourages efficient use of the state transportation system through investment in transportation demand management strategies.

> ***What this means for the Linn County TSP Update:*** *The TSP update will consider transportation demand management strategies to create greater mobility, reduce auto trips, make more efficient use of the roadway system, and minimize air pollution.*

Projects on Highways: The Highway Design Manual[6] (HDM) provides uniform design standards and procedures for ODOT and is in general agreement with the 2011 American Association of State Highway and Transportation Officials (AASHTO) *A Policy on Geometric Design of Highways and Streets*. Some key areas where guidance is provided are the location and design of new construction, major reconstruction, and resurfacing, restoration or rehabilitation (3R) projects. The HDM should be used for all projects on highways in Linn County to determine design requirements, including the minimum required volume to capacity ratios for use in the design of highway projects.

> ***What this means for the Linn County TSP Update:*** *System performance of highway improvement projects will be measured, in part, using the HDM v/c ratios. While HDM standards must be applied to ODOT facilities, design exceptions can be granted to those standards where conditions justify such action in order to balance the policies and objectives of the Oregon Transportation Plan.*

Oregon Bicycle and Pedestrian Plan: The provision of safe and accessible bicycling and walking facilities in an effort to encourage increased levels of bicycling and walking is the goal of the Oregon Bicycle and Pedestrian Plan, which is an element of the Oregon Transportation Plan. The plan identifies actions that will assist local jurisdictions in understanding the principals and policies that ODOT follows in providing bike and walkways along state highways. In order to achieve the plan's objectives, the strategies for system design are outlined, including:

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[6] ODOT Highway Design Manual: http://www.oregon.gov/ODOT/HWY/ENGSERVICES/hwy_manuals.shtml

- Providing bikeway and walkway systems and integrating with other transportation systems
- Providing a safe and accessible biking and walking environment
- Developing educational programs that improve bicycle and pedestrian safety

The plan is currently comprised of two parts: the Policy and Action Plan and the Oregon Bicycle and Pedestrian Design Guide. The Policy and Action section contains background information, legal mandates and current conditions, goals, actions and implementation strategies ODOT proposes to improve bicycle and pedestrian transportation. Originally adopted in 1995 and reaffirmed as an element of the OTP in 2006, this section is currently being updated as the "Bicycle and Pedestrian Mode Plan." The Design Guide is the technical element of the plan that guides the design and management of bicycle and pedestrian facilities on state-owned facilities. It has been designated as a companion piece to the Highway Design Manual and includes updated and innovative pedestrian and bicycle treatments. The Design Guide was updated in 2011 and will remain separate from the policy portion of the plan .

What this means for the Linn County TSP Update: *Consistent with State policy guidance and guided by the Design Guide, the TSP update will identify improvements that could enhance safety, increase connectivity and provide seamless connections between walking and biking facilities and other travel modes in Linn County.*

Oregon Scenic Bikeways – Willamette Valley Scenic Bikeway: The Oregon Scenic Bikeways document identifies a number of scenic bike routes for varying abilities throughout Oregon. A portion of the Willamette Valley Scenic Bikeway travels through Linn County along the scenic Willamette River.

What this means for the Linn County TSP Update: *The TSP update process should be coordinated with the Oregon State Parks, Linn County Parks Department, and other organizations, so that improvements to this bikeway, trail guidelines and connections between this bikeway and other parks, recreation areas and trails are incorporated into the TSP as appropriate.*

2015-2018 STIP, As Amended (generated on 12/05/2014): The following projects are identified in Linn County.

What this means for the Linn County TSP Update: *While each of theprojects in Table 3 represent a transportation related improvement in Linn County, none of these projects would increase capacity. These projects should be reflected in the TSP, as appropriate.*

Table 3: 2015-2018 ODOT STIP Roadway Improvement Projects in Linn County

Name	Location	Description	Jurisdiction	Capacity	Construction Year	Cost (millions)
North Santiam River Bridge	Stayton-Scio Road	Rehab Bridge	Linn County	No	2015	$4.17
TDM Program 2015	N/A	Transportation Demand Management	ODOT	No	2015	$0.03
Quartzville Byway Enhancements	Quartzville Byway	Land Purchase	ODOT	No	2015	$0.36
Goar Rd: Thomas Creek Bridge Rehab	Goar Road	Rehab Bridge	Linn County	No	2016	$1.87
Old Salem Road: Truax Creek Bridge Replacement	Old Salem Road	Replace Bridge	Linn County	No	2017	$2.06
I-5: S. Jefferson – N. Albany (NB)	I-5 (MP 234.71 to 238.76)	Grind/Inday of NB Lanes	ODOT	No	2017	$2.15
I-5: N. Albany – Halsey	I-5 (MP 216.14 to 234.71)	Grind & Patch Concrete Preservation	ODOT	No	2018	$15.3
Rideshare 2015	N/A	Cascades West COG	ODOT	No	2015	$0.05
I-5: South Jefferson Interchange – Santiam Highway Interchange	I-5 (MP 233.00 to 238.00)	Begin right-of-way purchase	ODOT	No	2016	$2.63
US 20: Sheep Creek Bridge Repair	US 20 (MP 56.57 to MP 56.63)	Preliminary Engineering	ODOT	No	2015	$0.35
I-5: N. Jefferson – N. Albany	I-5 (MP 234.71 to 244.44)	Grind inlay to remove rutted/reveled section of I-5	ODOT	No	2016	$0.30

Source: 2015-2018 ODOT STIP, accessed via website (http://www.oregon.gov/ODOT/TD/STIP/STIP/15-18_FINAL_STIP.pdf) August, 2015

Other Background Information for the TSP Update

The following sections summarize additional background information or guidance documents that will be used in updating the Linn County TSP.

Public Involvement: OHP Goal 2, Policy 2D requires that citizens, businesses, regional and local governments, state agencies, and tribal governments have opportunities to have input into decisions regarding proposed policies, plans, programs, and improvement projects that affect the state highway system.

What this means for the Linn County TSP Update: *The TSP update will offer public involvement opportunities that are accessible to all stakeholders and residents.*

Environmental Resources: OHP Goal 5, Policy 5A requires that the design, construction, operation, and maintenance of the state highway system should maintain or improve the natural and built environment including air quality, fish passage and habitat, wildlife habitat and migration routes, sensitive habitats (i.e. wetlands, designated critical habitat, etc.), vegetation, and water resources where affected by ODOT facilities.

What this means for the Linn County TSP Update: *The TSP update will consider the potential for environmental impacts of all proposed solutions.*

Linn County Comprehensive Plan: The Linn County Comprehensive Plan is the County's long range plan for land and water development and protection. The vision for development and protection is expressed in a series of goals, policies, and implementation (actions).

The Comprehensive Plan is included in the Linn County Code as Subtitle 1 of Title 9 – Community Development.. The Transportation Plan Code is included as an element of the Comprehensive Plan in Chapter 907, with key elements relevant to the TSP Update summarized below:

- Planning and Development Policies
- Coordination and Implementation of the Transportation Plan
- Road Network Policies
  - Functional Classification
  - Access Management
  - Pavement Management
  - Level of Service
  - Capacity
  - Bridges
  - Transportation Projects; Road Network
  - State Highways
  - City/County Road Policy
  - Local Road Improvement
  - Trucking of Hazardous Materials
  - Rail Network Policies

- Demand Management Policies
- Public Transportation Policies
- Air Transportation Policies
- Bicycling
- Other Transportation Issues

The adopted County transportation policy statements under each of these categories will need to be reviewed based on the goals and objectives for plan development (Technical Memorandum #4) and the recommendations of the draft updated TSP. Updated policies will need to reflect changes in conditions and priorities in the County since 1993, the date of the last TSP update. Updated policies are expected to reflect a greater emphasis on "active transportation" (biking, walking, transit), providing connections between modes, improving the transportation system's efficiency through system management(advanced technology enhancements, transportation demand management, etc.), preserving freight routes, the current funding environment for transportation improvements, and the State's Greenhouse Gas Reduction objectives.

> ***What this means for the Linn County TSP Update:*** *The TSP process will consider, and evaluate the goals and policies of the transportation element of the Comprehensive Plan and the updated TSP will reflect existing and updated transportation policy. The Comprehensive Plan will need to be amended to implement the TSP recommendations.*

Linn County Land Development Code (Subtitle 2): The Linn County Land Development Code regulates the use of land in unincorporated areas of the county. The code includes requirements for development, including requirements for land division and development standards.Specific development standards – such as site development, vehicle access and circulation, and street design – are reviewed for compliance with the State Transportation Planning Rule (TPR) in Attachment 2 of this document.

Linn County Standards Document: Specific development standards for site development, vehicle access and circulation, and street design are established in the County Standards Document, Division 5 of Subtitle 2 – Land Development Code. The following important transportation-related standards are included in this Division.

- Chapter 924 – Partitioning Code
- Chapter 934 – Development Standards Code
    - Parking standards
- Chapter 935 – Access Improvement Standards Code
    - Access requirements

Linn County Code Subtitle 2 - Land Development Code is the subject of a TPR compliance review in Attachment 2 of this document.

> ***What this means for the Linn County TSP Update:*** *The Linn County Code (Subtitle 2) may need to be amended to be consistent with the updated TSP and implement its recommendations, as well as to comply with*

state transportation regulations such as the TPR. (See preliminary Land Development Code recommendations in Attachment 2)

Linn County Park and Recreation Master Plan (January, 2009): The Linn County Park and Recreation Master Plan was approved in winter 2008. The following Priority I Capital Projects were identified in the plan and the TSP should consider connections between transportation, parks and recreation for the purposes of transportation planning.

Priority I Park and Recreation Master Plan Capital Projects:

- **Wayfinding signage**
- **Lebanon to Albany Regional Trail –** collaborate with local agencies on 10 mile multi-use trail with adjacent soft surface trail
- **Foster Reservoir Trail –** collaborate to complete 7.5 miles of compressed gravel trail

What this means for the Linn County TSP Update: *The TSP update process should be coordinated with the Linn County Parks Department so that trail guidelines and connections between parks, recreation areas and trails are incorporated into the TSP as appropriate.*

Linn County Coordinated Public Transit – Human Services Transportation Plan, May 2007: This plan identifies a number of needs and opportunities to coordinate and enhance community transportation services in Linn County. The TSP should support policies to improve transit access and services in the County, including carpool, vanpool and other opportunities for transportation options.

What this means for the Linn County TSP Update: *The TSP update process should be coordinated with the Linn County Transit providers and should include or support policies aimed at improving transit and other transportation options in the county, as approrpriate.*

Linn County Capital Improvement Plan (2015-2020): A list of the projects identified by County staff, along with the total project cost estimate, is shown below. Projects are either locally funded or have outside funding identified within the next 5 years.

Locally funded projects (with total project cost estimate):

- Brownsville Road Improvement Project - $2.4 million
- Sandridge Road (Butte Creek) Bridge Replacemtn - $700,000
- Broadway Street – Mill City Sidewalk Street Improvement - $1.2 million
- 2015 Pavement Overlay Projects - $1.4 million
- Seven Mile Lane/OR 34 Signal Improvement - $2.0 million
- Seven Mile Lane Road Widening and Drainage Improvement (Columbus to I-5 Overpass) - $3.0 million
- Sixth Avenue Road Improvement (Scio) - $700,000
- Riverside Drive Widening and Improvement (Phase I and Phase II) - $4.8 million
- Walnut Drive/Oakville Road Intersection and Road Improvement - $2.0 million

- Red Bridge Road Albany Canal Bridge Upgrade - $300,000
- Closure of Columbus Street/OR 34 Access – [no cost estimate provided]

Capital Improvement Projects with Outside Funding [with identified funding source]:

- North Santiam River Stayton Scio Road Bridge (seismic retrofit and scour protection) - $3.8 million [HBRR (ODOT)]
- Quartzville Road Corridor Projects - $7.2 million [FLAP (WFL-FHWA)]
- Gilkey Covered Bridge (rehabilitation and improvement) - $1.6 million [HBRR (ODOT)]
- Old Salem Road (Truax Creek) Bridge Replacement - $1.26 million [HBRR (ODOT)]
- Truax Creek Bridge Replacement - $2.06 million [ODOT 2015-2018 STIP]

In addition, the County has submitted a number of grant applications that are currently being evaluated.

> ***What this means for the Linn County TSP Update:*** *Projects and priorities in the Linn County Capital Improvement Plan will inform the development of the TSP update and relevant transportation improvements will be reflected in the updated TSP.*

Linn County Fish Passage Barrier Inventory

Linn County has a fish passage barrier inventory. These are locations which typically have undersized culverts for a large storm event, which may cause flooding in these conditions. When an improvement is constructed, the environmental requirements must be met.

> ***What this means for the Linn County TSP Update:*** *Locations on the fish passage barrier inventory should be considered when prioritizing projects, since projects may be "bundled" to provide the highest overall benefit. Fish passage projects tend to have higher costs due to strict environmental requirements and may also have additional funding (grant) opportunities.*

City of Albany Comprehensive Plan: The City of Albany Comprehensive Plan is a long range plan for development and protection of land and water in the City of Albany. Policies in this local Comprehensive Plan that address coordination between the City and County regarding land use and transportation are summarized below.

- **General Urban policies –** The City or County will notify each other of an application for development within the Urban Growth Boundary outside the city limits, include applications for extensions of public facilities and annexations. Also, the more restrictive of City or County development standards or requirements are met.
- **Specific Land Use Planning policies –** It is the policy of the City that it continue an active coordination program with agencies and other governmental units.
- **Transportation goals and policies –** It is the goal of the City that it provide an efficient transportation system that provides for the local and regional movement of people and goods. The following policies address regional issues:

- Preserve and protect corridors of local and regional significance that are identified for vehicular and non-vehicular routes
- Establish priorities and define the incremental steps needed for investment of ODOT and Federal revenues to address safety and major capacity problems on the State and Interstate transportation system.

> ***What this means for the Linn County TSP Update:*** *Albany Comprehensive Plan policies should be reflected in the Linn County TSP to the extent that the updated TSP addresses jurisdiction coordination.*

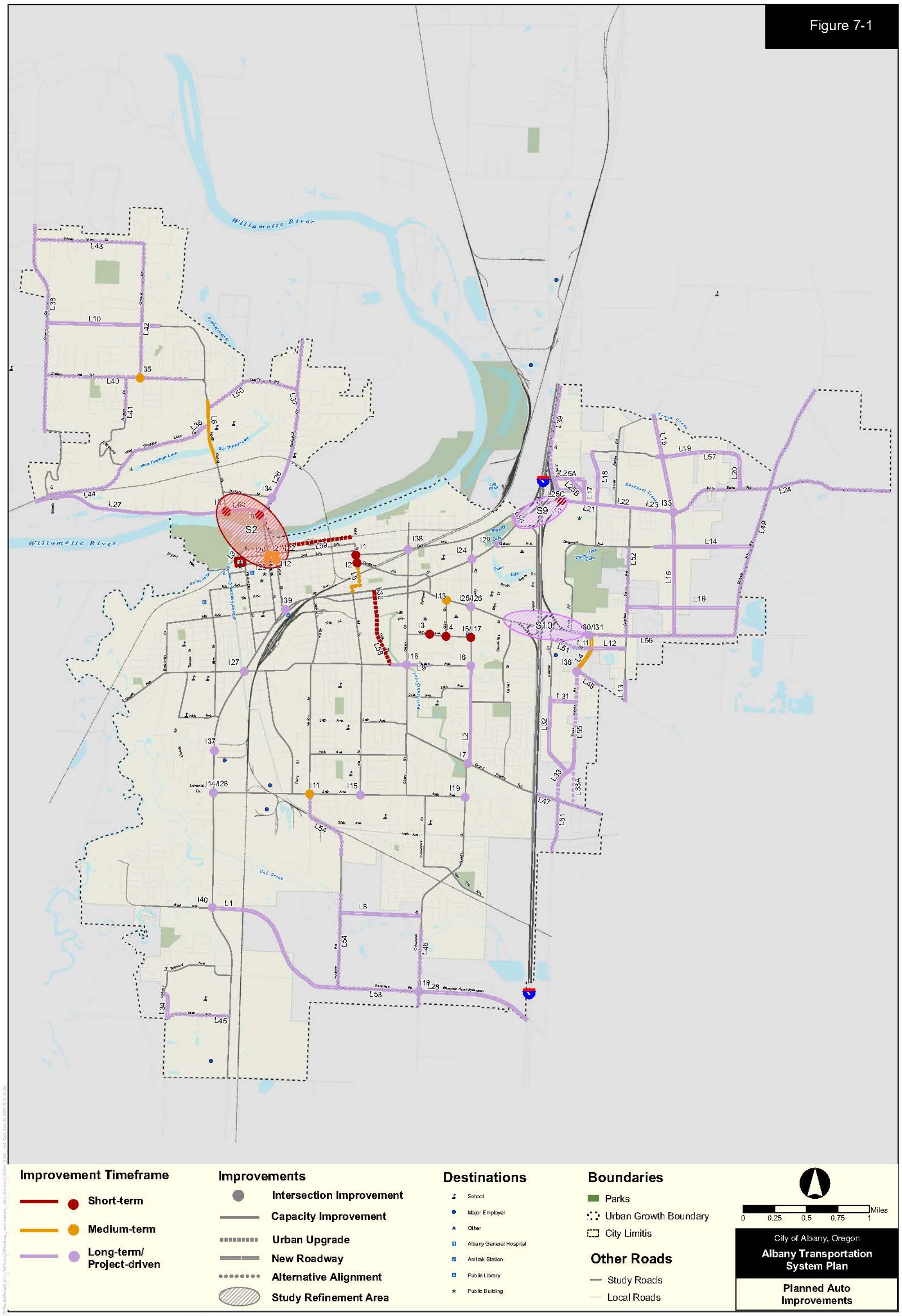
Albany Transportation System Plan (TSP)

A number of projects in Linn County, outside the Albany UGB, were identified as long-term development-driven improvements (see Figure 1). These projects will be needed to accommodate anticipated growth. The timeline for these projects is unknown and the improvements will not be necessary prior to development within the surrounding areas of the projects. Project priorites will be determined in conjunction with growth outside the UGB. These projects include the following:

Table 3: Albany TSP Projects in Linn County

Project ID	Project Name	Project Type
I16	Ellingson Road/Columbus Street	Intersection Control Change
L1	53rd Avenue Extension	New Road or Alignment
L8	Lochner-Columbus Connector	New Road or Alignment
L14	Dogwood Avenue Extension	New Road or Alignment
L16	New East/West Collector	New Road or Alignment
L20	Santa Maria Avenue Extension	New Road or Alignment
L24	Knox Butte Road Widening	Add Lane(s)/Urban Upgrade
L28	Ellingson Road Extension	New Road or Alignment
L33 or L33A	Three Lakes Road Realignment	New Road or Alignment
L46	Columbus Street	Urban Upgrade
L47	Grand Prairie Road	Urban Upgrade
L49	Scravel Hill Road	Urban Upgrade
L53	Ellingson Road	Urban Upgrade
L54	Lochner Road	Urban Upgrade
L56	US 20 – East of I-5	Urban Upgrade
L61	Three Lakes Road	Urban Upgrade

Figure 1: Albany TSP – Planned Auto Improvements



> ***What this means for the Linn County TSP Update:*** *Transportation-related project elements identified in the Albany TSP, that are outside the UGB or where city and county facilities abut, should be reflected in the Linn County TSP.*

City of Harrisburg Comprehensive Plan: The City of Harrisburg Comprehensive Plan is Chapter 18 of the Harrisburg Municipal Code and includes coordination with Linn County for development proposals impacting county roadway facilities (section 18.125.080).

> ***What this means for the Linn County TSP Update:*** *Transportation-related elements in the City of Harrisburg Comprehensive Plan that may have bearing on county land and coordination, such as policies and objectives related to trails and evacuation routes that extend outside of city limits should be reflected in the Linn County TSP.*

City of Harrisburg Transportation System Plan: The City of Harrisburg TSP was adopted by city council in January, 2000, but only received partial approval from DLCD. The TSP was revised in 2004 to reflect rapid growth in Harrisburg and to address the amendments necessary for full approval by DLCD. A number of new street projects were identified, with most expected to be funded by development or SDC funds. These projects are shown in the tables below:

New Street Projects

Street	Segment	Type of Improvement	Cost Estimate**	Funding Source	Type of Street*	Estimated date of completion
10th Street	Diamond Hill to Burton	Curbs, gutters and new street	Required build out for developers	Developers	Collector	2006
9th Street	LaSalle to Priceboro	Curbs, gutters and new street	$742,100	Developers	Collector	2006
9th Street	From Territorial to Burton	Curbs, gutters and new street	$226,800	Curbs and gutters are property owners responsibility; Street improvements are the City's responsibility	Collector	2009
LaSalle	3rd to 6th	New street	$742,100	SDC's and street construction funds	Minor arterial	2006
Cramer Ave	From Priceboro to Diamond Hill	Includes 2 lanes with median and bike lanes	$2,545,200	Grant, developers, SDC & street funds	Minor arterial	2008
Burton Street	9th Street to Harvest Glen subdivison	Curbs, gutters and new street	$270,700	Developer, property owners, SDC's street funds	Local	2004
10th Street	Territorial to Priceboro	Curbs, gutters and new street	$1,598,000	Developers	Collector	2010
Total Costs of New Street Projects 2004-2010			$6,124,900			

**May 2001 dollars=ENR CCI=7230, Jan2000 and ENR CCI=7864

Planned Improvements to Pedestrian Facilities

Location	Segment	Type of Improvements Planned	Cost	Expected Date of Completion
LaSalle	3rd to 6th	Curb, gutter and sidewalk	Prop. Owners	Fall 2005
9th	Territorial to	Curb, gutter and sidewalk	Prop. Owners	2009
9th	Burton to Diamond Hill	Sidewalk	Prop. Owners	2010
Smith	6th to 7th	Curb, gutter and sidewalk	Prop. Owners	Summer 2005
Smith	4th-6th	Curb, gutter and sidewalk	Prop. Owners & street funds	By 2010
4th Street	Smith to Macy	Curb, gutter and sidewalk on City property	Prop. Owners	Summer 2005
4th Street	Macy to Kesling	Curb, gutter and sidewalk on east side	Prop. Owners	By 2010
2nd Street	99E to Fountain	Curbs, gutters and sidewalk	Prop. Owners	By 2010
Smith	2nd to 3rd	Replace defective sidewalk on north side	Prop. Owners	By 2010
Macy	1st to 2nd	Curb, gutter and sidewalk on north side	Prop. Owners	By 2010
La Salle	East of 9th	Curb, gutter, sidewalk on south side; sidewalk on north side	Prop. Owners	By 2010
Sommerville LP	S. 6th to 10th	Curbs, gutter, sidewalk	Prop. Owners	By 2010
Territorial	2nd to 3rd	Curbs, gutters and sidewalk	Prop. Owners	By 2010
N.10th	Territorial to Priceboro	Curbs, gutters and sidewalk	Prop. Owners	Contingent on development build out and construction of new street
6th Street	Quincy to Territorial	Sidewalk	Prop. Owners	By 2010
6th Street	Dempsey to subdivision	Sidewalk	Prop. Owners	By 2010
7th Street	North of Diamond Hill	Curbs, gutters and sidewalk	Prop. Owners	By 2010
8th Street	Territorial to Burton	Curbs, gutters and sidewalks	Prop. Owners	By 2010
Dempsey Street	All: both sides	Sidewalk	Prop. Owners	By 2010
Moore	Near Delta Valve between 2nd and 3rd	Sidewalk	Prop. Owners	By 2010
Fountain	West from 3rd	Sidewalk on south side, ½ a block	Prop. Owners	By 2010

Proposed Bike Lanes: Parks Master Plan

Location	Segment	Funding Source
Diamond Hill	10th –Cramer	Grants, bike funds from gas tax, parks funds, street funds
Territorial	7th –Cramer	
Territorial	1st-3rd	
La Salle	1st-3rd	
La Salle	9th-Cramer	
Sommerville LP	6th-Cramer	
Priceboro	Extension to Riverfront, would require a ROW through Morse Bros. Corp. property	
Along the city's riverfront	From Priceboro up to the city's wastewater treatment plant.	

> ***What this means for the Linn County TSP Update:*** *Transportation-related project elements and roadway classifications identified in the Harrisburg TSP that are for facilities that lie outside the UGB, or where city and county facilities abut, should be reflected in the Linn County TSP.*

City of Lebanon Comprehensive Plan: The City of Lebanon Comprehensive Plan was adopted by the Lebanon City Council on December 8, 2004. The transportation element of the Comprehensive Plan was superceded by the TSP, when it was adopted in 2007. Other relevant elements of the Comprehensive Plan include Urbanization, Land Use and Public Facilities and Services.

- Urbanization (Chapter 3)
    - Coordination between Lebanon and Linn County is directed by the City's Urgran Growth Mangement Agreement (UGMA) with the County.
    - Population and economic analysis forecasts must be consistent between Lebanon and Linn County
- Land Use (Chapter 4)
    - Cooperation between all agencies (e.g. federal, state, county, special districts, etc.)
    - Preserve, in cooperation with the county, vacant and undeveloped designated industrial lands in the Urban Growth Area for future industrial and accessory support uses.
- Transportation (Chapter 8) – Superceded by the TSP Adopted in 2007.

> ***What this means for the Linn County TSP Update:*** *Lebanon Comprehensive Plan policies should be reflected in the Linn County TSP to the extent that the updated TSP addresses jurisdiction coordination.*

City of Lebanon Transportation System Plan: The City of Lebanon TSP was most recently adopted in 2007. It is currently being updated, concurrently with the Linn County TSP. Recommendations from the TSP update should be incorporated and/or reflected in the Linn County TSP, as appropriate, as much as possible.

> ***What this means for the Linn County TSP Update:*** *Transportation-related project elements and roadway classifications identified in the Lebanon TSP Update, that are outside the UGB or where city and county facilities abut, should be reflected in the Linn County TSP.*

Scio Comprehensive Plan: The Scio Comprehensive Plan was adopted by the City of Scio in April, 2015.

- **Land Use Policies**- The City of Scio and Linn County will jointly plan for the development of urbanizable land outside the city limits and inside the Scio Urban Growth Boundary.
- **Transportation Policies** – To be complete in Part 2 Update by June, 2016

> ***What this means for the Linn County TSP Update:*** *Scio Comprehensive Plan policies should be reflected in the Linn County TSP to the extent that the updated TSP addresses jurisdiction coordination. Transportation elements should be reflected in the Linn County TSP to the extent feasible since the projects are running concurrently.*

AAMPO Regional Transportation Plan: The Albany Area Metropolitan Planning Organization (AAMPO) is developing the Albany Area Regional Transportation concurrently with this project. The

RTP will guide management and development of the regional transportation system over a 20-year period.

What this means for the Linn County TSP Update: *The Linn County TSP should coordinate with the AAMPO RTSP to ensure consistency between the plans as each develops.*

AAMPO Transit Development Plan: AAMPO is producing a Transit Development Plan (TDP) for the AAMPO planning area in conjunction with the Regional Transportation Plan. The TDP will address regional transit needs and will outline a vision for public transportation, serving as a guide for future investment in transit services.

What this means for the Linn County TSP Update: *The Linn County TSP can coordinate with AAMPO to help address Linn County transit needs within the AAMPO planning area.*

Attachment A: Applicable Plans and Policies

The following plans and policies were reviewed for the Linn County TSP Update:

- Linn County Linn County TSP, 2003
- Linn County Comprehensive Plan, (http://www.co.linn.or.us/index.php?content=planning/ldc) retrieved August, 2015
- 2015-2020 Capital Improvement Projects Draft, 2015-2020
- Linn County Parks and Recreation Master Plan, January 2009
- Linn County Fish Passage Barrier Inventory

State of Oregon

- 1999 Oregon Highway Plan, amended August 2013
- Oregon Transportation Plan, September 2006
- Oregon Bicycle and Pedestrian Plan, 1995
- Oregon Rail Plan, 2014
- Oregon Freight Plan, June 2011
- Oregon Aviation Plan, 2007
- Oregon Public Transportation Plan, 1997
- Transportation Planning Rule (OAR 660-012), amended December 2011
- Access Management Rules (OAR 734-051), amended December 2011
- Statewide Transportation Improvement Program (STIP), June 2012
- Transportation System Planning Guidelines, 2008
- 2015-2018 Statewide Transportation Improvement Program, Final 2015-2018 STIP
- Oregon Seismic Lifeline Routes Identification Project: Lifeline Selection Summary Report, May 15, 2012

Regional Documents

- Oregon Scenic Bikeways, Oregon State Parks (www.Oregon.gov/ODOT/HWY/BIKEPED), retrieved August, 2015
- Linn County Coordinated Public Transit – Human Services Transportation Plan, May, 2007
- AAMPO Regional Transportation Plan (RTP)
- AAMPO Transit Development Plan (TDP)

Local Cities' Plans

- City of Albany Comprehensive Plan
- Albany Transportation System Plan (TSP)
- City of Harrisburg Transportation System Plan
- City of Harrisburg Comprehensive Plan
- Scio Comprehensive Plan
- City of Lebanon Comprehensive Plan
- City of Lebanon Transportation System Plan

Attachment B: Draft Regulatory Review

Table 1 – TPR Review of Linn County Land Development Code

TPR Requirement	Land Development Code References and Recommendations
OAR 660-012-0045	
(1) Each local government shall amend its land use regulations to implement the TSP.	
(a) The following transportation facilities, services and improvements need not be subject to land use regulations except as necessary to implement the TSP and, under ordinary circumstances do not have a significant impact on land use: (A) Operation, maintenance, and repair of existing transportation facilities identified in the TSP, such as road, bicycle, pedestrian, port, airport and rail facilities, and major regional pipelines and terminals; (B) Dedication of right-of-way, authorization of construction and the construction of facilities and improvements, where the improvements are consistent with clear and objective dimensional standards;	Consistent with this requirement, most of the County's zoning districts (LCC Chapters 928 through 931) list uses allowed transportation uses outright and subject to review, including Rural Resource Zones (LCC 928), Rural Development Zones (LCC 929), and Urban Growth Area Zones (LCC 930). Zones where the operation, maintenance, and repair of existing transportation facilities are listed as allowed outright include Exclusive Farm Use (EFU) (LCC 928.310(B)(9)), Farm/Forest (F/F) (928.605(B)), Forest Conservation and Management (FCM) (LCC 928.911(B)(13)) LCC Chapter 929, Rural Development Zone, lists "transportation improvements" as allowed outright in all individual zones. Transportation improvements are defined in LCC 920.100(301) and include a list of improvements that are consistent with 660-012-0065 Transportation Improvements on Rural Lands. Chapter 930, Urban Growth Area, allows for transportation improvements by reference to other chapters or sections in most zoning designations. Urban Growth Area-Exclusive Farm Use-80 Zoning District references uses allowed outright and through conditional use review in the Exclusive Farm Use district

	(C) Uses permitted outright under ORS 215.213(1)(m) through (p)[7] and 215.283(1)(k) through (n)7, consistent with the provisions of 660-012-0065[8]; and (D) Changes in the frequency of transit, rail and airport services. (b) To the extent, if any, that a transportation facility, service, or improvement concerns the application of a comprehensive plan provision or land use regulation, it may be allowed without further land use review if it is permitted outright or if it is subject to standards that do not require interpretation or the exercise of factual, policy or legal judgment.	(LCC 930.120); Urban Growth Area-Farm/Forest (LCC 930.210) references Urban Growth Area-Exclusive Farm Use-80 district; and Urban Growth Area-Rural Commercial Zoning District (LCC 930.500) refers to Rural Commercial Zoning District (LCC 929.420 and 929.430). **Recommendation:** The Existing code provisions address this requirement. No changes to the code are recommended.	

[7] Transportation uses in ORS 215.214(1)(m) through (p) and 215.283(1)(k) through (n) include:

- Climbing and passing lanes within the right of way existing as of July 1, 1987
- Reconstruction or modification of public roads and highways, including the placement of utility facilities overhead and in the subsurface of public roads and highways along the public right of way, but not including the addition of travel lanes, where no removal or displacement of buildings would occur, or no new land parcels result.
- Temporary public road and highway detours that will be abandoned and restored to original condition or use at such time as no longer needed.
- Minor betterment of existing public roads and highway related facilities, such as maintenance yards, weigh stations and rest areas, within right of way existing as of July 1, 1987, and contiguous public-owned property utilized to support the operation and maintenance of public roads and highways.

[8] OAR 660-112-0065 (Transportation Improvements on Rural Lands); (1) This rule identifies transportation facilities, services and improvements which may be permitted on rural lands consistent with Goals 3, 4, 11, and 14 without a goal exception.

TPR Requirement	Land Development Code References and Recommendations
(c) In the event that a transportation facility, service or improvement is determined to have a significant impact on land use or requires interpretation or the exercise of factual, policy or legal judgment, the local government shall provide a review and approval process that is consistent with 660-012-0050. To facilitate implementation of the TSP, each local government shall amend regulations to provide for consolidated review of land use decisions required to permit a transportation project.	Referenced TPR Section -0050 addresses project development and implementation – how a transportation facility or improvement authorized in a TSP is designed and constructed. Project development may or may not require land use decision-making. The TPR directs that during project development, projects authorized in an acknowledged TSP will not be subject to further justification with regard to their need, mode, function, or general location. LCC 921 includes classes of review (Type IA, IB, IIA, IIB, IIIA, IIIB) dependent on type of application, and the associated procedures. Type IIA is for the majority of discretionary decisions made by the Director, including subdivisions and any other action determined by the Director pursuant to LCC 921 or ORS Chapters 92, 197, and 215. Type IIB is limited to applications seeking interpretation of the Land Development Code. LCC 921.045 (Multiple Applications) allows the Director, or other decision maker, to allow multiple applications relating to the same tract or authorized unit of land be combined and reviewed concurrently as a single application. In terms of coordination with other transportation agencies, LCC 921.370, Intergovernmental Notice, includes provisions for the Director to notify additional notice to other government agencies. The Director is required to provide notice to ODOT's Highway Division for proposed land development applications that would be adjacent to, would access from, or would have potential impact upon a state highway or interstate freeway. Issued permits and reviews are required to conform to the Land Development Code, however LCC Chapter 921 does not include criteria related to potential significant impacts on a transportation facility. LCC 921.500 (Applications for development permits; requirements; generally) requires that development applications must conform to the Land Development Code for permits to be issued. LCC 921.930 (Compliance with the Development Code provisions; generally) requires that decisions made under the Development Code must comply with the Development Code, the Comprehensive Plan, and ORS Chapters 92, 197, and 215.

		Recommendation: The Development Code includes provisions for various types of review with the ability to consolidate applications and the associated notification requirements, consistent with the TPR. Note that the Development Code does not specify how significant impacts to transportation facilities are determined, resulting in a review and approval process pursuant to LCC Chapter 921. As noted later in this review, under TPR-045(2)(b), it is recommended that criteria be included for traffic impact analysis or studies in order to determine significant impacts to transportation facilities as part of the development review process.	

TPR Requirement	Land Development Code References and Recommendations
(2) Local governments shall adopt land use or subdivision ordinance regulations, consistent with applicable federal and state requirements, to protect transportation facilities corridors and sites for their identified functions. Such regulations shall include:	
(a) Access control measures, for example, driveway and public road spacing, median control and signal spacing standards, which are consistent with the functional classification of roads and consistent with limiting development on rural lands to rural uses and densities;	LCC Chapter 934 sets development standards applicable to all developments and specific to zoning districts. Access related standards applicable to all developments include standards for parking and driveways (LCC 934.205(B)(4)) and parking (LCC 934.250-260). Access-related standards specific to zoning districts are provided for in RRZ (LCC 934.570), RDZ (LCC 934.620 and 934.670), and UGAZ (LCC 934.770). Access standard requirements for development in these districts require the design to cause minimum interference with traffic and are subject to the review and approval of the County Engineer. The County Engineer or state highway department may recommend additional right-of-way and improvements to facilitate traffic circulation. LCC 923.200(A) (Easements other than for road access) pedestrian ways may be required by the Director, when dividing authorized units of land into lots or parcels, to connect cul-de-sacs or to pass through unusually long or oddly-shaped property LCC Chapter 935 sets access improvement standards applicable to all developments that include new construction or improvement of existing access as part of developing a property (LCC 935.005-360) as well as requirements for road improvements within subdivisions (LCC 935.900-920). Minimum access requirements for private roads, local access roads, easements of road access, flag-lots, and private driveways are determined by level by the number of homesites served, with right-of-way widths ranging from 30-60 feet wide (LCC 935.020). LCC 935.340 (County road creation, not through subdividing) requires the creation of county roads to conform to the requirements set forth in LCC Chapter 926 (Subdividing code). LCC 926 sets standards and requirements regulating subdivisions, including road improvement and access provisions

(LCC 926.600 – 926.620).

LCC 926.600 (Subdivision road improvements) provides approval requirements made by the Roadmaster during various stages of development and construction for all subdivision developments. The Roadmaster is given authority to approve road improvements in accordance with standards set forth in LCC Chapter 926, Appendix A of LCC Chapter 935, and any other specifications deemed appropriate by the Roadmaster. LCC 926.610 (Subdivision road improvement specifications) includes provisions for the locations, alignment, and design or roads within subdivisions. 926.620 (Adjustment of road specifications) gives the Roadmaster discretion to adjust any of the miscellaneous provisions to cover situations which differ between sites.

Appendix A to LCC 935 (935.900 – 935.920) includes road improvement requirements within subdivisions and other roads proposed as part of partitioning to be become part of the County-maintained road system. LCC 935.920 (Design standards) includes design standards for road improvements. LCC 935.920(A) sets the traffic design year for 10 years in the future, while LCC 935.920(B) requires roadways to be in conformance with standards available through County Road Department office. LCC 935.920(D) includes standards for intersection design, with minimum spacing of 125 feet between intersection centerlines. LCC 935.920(E) includes standards for roadway cross sections, however no pavement/sidewalk/bike path widths are provided.

Recommendation: Access control measures applicable to all developments for parking and driveways are easily accessible in the development standards.

Access control measures, such as roadway and intersection spacing are located in the subdivision chapter (LCC 926) or Appendix A of the access improvement chapter (LCC 935) and are clearly applicable to subdivisions. Access control measures for all other county roads refers to the requirements set forth for subdivisions. The County should consider consolidating/relocating access control measures to general development standards (LCC 935 Access Improvements) and updating references in subdivision standards.

There is currently no access improvements which have standards and requirements consistent with the functional classification of roads. It is recommended that current access standards be associated with road functional classifications in the (updated) TSP and that access control measures such as signal spacing be included or that references to standards in the TSP be added.

TPR Requirement	Land Development Code References and Recommendations
(b) Standards to protect the future operations of roads, transitways and major transit corridors	The Transportation Plan Code (LCC 907, part of the Comprehensive Plan) assesses the future performance of County roads based on Level-of-service (LOS) standards (LCC 907.340) with LOS service levels of A through C being achieved on all County roads. LOS D service level is the established goal for the County to maintain. Linn County's development code currently does not include standards or criteria for when a traffic impact study is necessary for development. However, all road improvements, including curbs, sidewalks, and drainage, are subject to review and approval by the Roadmaster. **Recommendation:** It is recommended that clear and objective standards be added to the development code specifying when development proposals are required to conduct and include a traffic impact study. Additional language should also be added listing possible traffic impact mitigation improvements.
(c) Measures to protect public use airports by controlling land uses within airport noise corridors and imaginary surfaces, and by limiting physical hazards to air navigation;	LCC 921.307 (Initial application notice; owner of an airport) provides notice criteria to owners of airports for Type IIA and Type IIIB actions and hearings (structures less than 35 feet in height and located outside the runway approach surface are exempt from notice requirements). LCC 931.100 – 931.140 (Airport Overlay) regulates land uses within the overlay by limiting building height, built to minimize noise impacts, and the design standards set forth in LCC 934.800 (Overlay standards). LCC 934.810 (AO development standards) regulates height limitations, imaginary surfaces, roadways, parking areas, and storage, and noise. **Recommendation:** Existing code provisions address this requirement. No changes to the code are recommended.
(d) A process for coordinated review of future land use decisions affecting transportation facilities, corridors or sites;	See response to -0045(1)(c).
(e) A process to apply conditions to development proposals in order to	LCC Chapter 933 provides conditions, requirements, and decision criteria

	minimize impacts and protect transportation facilities, corridors or sites;	applicable to conditional uses and for specific conditional uses. LCC 933.220 (Decision criteria) includes decision criteria applicable to all conditional use developments, including the proposed uses will have a minimal impact on "traffic generation and the capacity of the surrounding road network" and the development site has the "physical characteristics needed to support the use, such as (a) access…" LCC 933.260 provides decision criteria for conditional uses in the urban growth area zone (UGAZ), including "traffic generated from the site can be adequately served by the road system servicing the site" and "road access meets County standards found in section 3.2 of the Linn County Transportation Element of the Comprehensive Plan." LCC 933.900 provides decision criteria for specific transportation conditional uses within the rural resource zone (RRZ). The decision criteria involves the identification and assessment of design alternatives. The alternative with the least impact is to be selected. LCC 933.100 (Conditions; generally) includes, but is not limited to, a list of conditions that may be applied conditional use applications, including vehicle access points, roadway dedication including bonding of improvements, and requiring that public facilities are adequate to serve a proposed use among other non-transportation related conditions. **Recommendations:** LCC conditions criteria exist to minimize the impact of land use decisions on the transportation network. However decision criteria on impacts to transportation facilities are not related to their functional classification and do not specifically list bicycle/pedestrian access as a condition. In addition, traffic impact analyses are only required for conditional use transportation facilities in RRZ zones. It is recommended that decision criteria include transportation impacts related to the functional classification of adjacent roadways, traffic impact analyses be required within a defined threshold for all developments. The County should also consider including bicycle/pedestrian access as to the list of conditions of approval in LCC 933.100.	

TPR Requirement	Land Development Code References and Recommendations
(f) Regulations to provide notice to public agencies providing transportation facilities and services, MPOs, and ODOT of: (A) Land use applications that require public hearings; (B) Subdivision and partition applications; (C)Other applications which affect private access to roads; and (D)Other applications within airport noise corridor and imaginary surfaces which affect airport operations.	See response to -0045(1)(c).
(g) Regulations assuring amendments to land use designations, densities, and design standards are consistent with the functions, capacities and performance standards of facilities identified in the TSP.	LCC 921.800 – 921.840 (Amendment Procedures – Land Development Code) provides regulations, procedures, and criteria for amending the development code through a Type IIIA or Type IIIB review process. Amendments are to be consistent with intent, policies, and designations in the Comprehensive Plan for zoning map amendments (LCC 921.822) and development code text amendments (LCC 921.823). **Recommendation:** Existing code provisions address this requirement. No changes to the code are recommended.
(3) Local governments shall adopt land use or subdivision regulations for urban areas and rural communities as set forth below. The purposes of this section are to provide for safe and convenient pedestrian, bicycle and vehicular circulation consistent with access management standards and the function of affected streets, to ensure that new development provides on-site streets and accessways that provide reasonably direct routes for pedestrian and bicycle travel in areas where pedestrian and bicycle travel is likely if connections are provided, and which avoids wherever possible levels of automobile traffic which might interfere with or discourage pedestrian or bicycle travel.	
(a) Bicycle parking facilities as part of new multi-family residential developments of four units or more, new retail, office and institutional developments, and all transit transfer stations and park-and-ride lots.	Linn County Development Code currently does not include land-use or subdivision regulations for bicycle parking facilities. **Recommendation:** It is recommended that minimum bicycle parking requirements be added to LCC Chapter 934 (Development Standards) as a subsection of the parking standards (LCC 934.250 – 934.260) and Table 1 of Chapter 934 be modified, or a second table added, with bicycle parking requirements.

(b) On-site facilities shall be provided which accommodate safe and convenient pedestrian and bicycle access from within new subdivisions, multi-family developments, planned developments, shopping centers, and commercial districts to adjacent residential areas and transit stops, and to neighborhood activity centers within one-half mile of the development. Single-family residential developments shall generally include streets and accessways. Pedestrian circulation through parking lots should generally be provided in the form of accessways. (A) "Neighborhood activity centers" includes, but is not limited to, existing or planned schools, parks, shopping areas, transit stops or employment centers; (B) Bikeways shall be required along arterials and major collectors. sidewalks shall be required along arterials, collectors and most local streets in urban areas except that sidewalks are not required along controlled access roadways, such as freeways; (C) Cul-de-sacs and other dead-end streets may be used as part of a development plan, consistent with the purposes set forth in this section; (D) Local governments shall establish their own standards or criteria for providing streets and accessways consistent with the purposes of this section. Such measures may include but are not limited to: standards for spacing of streets or accessways; and standards for excessive out-of-direction travel; (E) Streets and accessways need not be required where one or more of the following conditions exist: (i) Physical or topographic conditions make a street or accessway connection impracticable. Such conditions include but are not limited to freeways, railroads, steep slopes, wetlands or other bodies of water where a connection could not reasonably be provided; (ii) Buildings or other existing development on adjacent lands physically preclude a connection now or in the future considering the potential for redevelopment; or (iii) Where streets or accessways would violate provisions of leases, easements, covenants, restrictions or other agreements existing as of May 1, 1995, which preclude a required street or accessway connection.	Parking Lots –Pedestrian accessways through parking lots are addressed in LCC 934.251(C) (Parking area design) but do not provide clear and objective standards for pedestrian accessway improvements or require that connections be made between and within uses listed in -0045(3)(b). It requires that service drives be "designed and constructed to facilitate the flow of traffic, provide maximum safety from traffic ingress and egress and maximum safety for pedestrians and vehicular traffic on the site." Bikeways and sidewalks – LCC 935.920(E)(3)(b)(ii) (Design standards) requires that the shoulders on designated bicycle routes or pedestrians walkways to be paved, however the development code does not currently indicate where designated routes/walkways are found. Cul-de-sacs – LCC 935.310 (Stubbed roads with a cul-de-sac; standards) provides standards to all stubbed road/cul-de-sacs, limiting the length to less than 1,320 feet and requiring County approval prior to extending to future subdivisions or developments on adjacent lands. LCC 923.200 (Easements other than for road access) allows the Director to require pedestrian ways to connect cul-de-sacs or to pass through properties as part of new lot/parcel creation when it's in the public's best interest. Street spacing standards – Street spacing standards can be found in LCC 926.610 (Subdivision road improvement specifications) and are applicable to subdivisions and all other county roads per LCC 935.340 (County road creation, not through subdividing). Road location is defined relative to existing or planned roads, topographical conditions, public convenience and safety, and to the proposed uses. No specific spacing standards are provided. Locations are shown in the Comprehensive Plan, and roads not shown in the Comprehensive Plan are subject to additional provisions, including exceptions due to topographical conditions once approved by the Director as part of a neighborhood plan. Exceptions for streets and accessways – Exceptions to providing streets may be granted based on topographical conditions (LCC 926.610 Subdivision road improvement specifications), . Street exceptions for -0045(3)(b)(E)(ii) and (iii) and accessway exceptions for -0045(3)(b)(E)(i) through (iii) are not currently in the Development Code. **Recommendations:** It is recommended that clear and objective development standards for on-site facilities be added for TPR -0045(3)(b) uses in LCC 935 and/or LCC 934 (Parking area design).

TPR Requirement	Land Development Code References and Recommendations
(c) Off-site road improvements are otherwise required as a condition of development approval, they shall include facilities accommodating convenient pedestrian and bicycle and pedestrian travel, including bicycle ways on arterials and major collectors	See response related to conditions of approval, Section -0045(2)(e).
(e) Internal pedestrian circulation within new office parks and commercial developments shall be provided through clustering of buildings, construction of accessways, walkways and similar techniques.	Linn County Development Code currently does not include provisions requiring internal pedestrian circulation within commercial and office developments. Specific zoning district standards (RDZ 934.600s, and UGAZ 934.700s) include requirements for development area, width, and depth; frontage; property coverage; setbacks; parking; access; etc. However the standards do not encourage the clustering of buildings, construction of accessways, walkways, and other similar techniques. **Recommendation:** It is recommended that internal pedestrian circulation standards applicable to commercial developments be added to LCC 934 (RDZ 934.600s, and UGAZ 934.700s).
(6) In developing a bicycle and pedestrian circulation plan as required by 660-012-0020(2)(d), local governments shall identify improvements to facilitate bicycle and pedestrian trips to meet local travel needs in developed areas. Appropriate improvements should provide for more direct, convenient and safer bicycle or pedestrian travel within and between residential areas and neighborhood activity centers (i.e., schools, shopping, transit stops). Specific measures include, for example, constructing walkways between cul-de-sacs and adjacent roads, providing walkways between buildings, and providing direct access between adjacent uses.	The TSP update process will review/update the County's bicycle and pedestrian plans. Related code provisions and comments are contained elsewhere in this review, including: Walkways between cul-de-sacs and adjacent roads – See response and recommendations related to cul-de-sacs, Section -0045(3)(b). Walkways between buildings – See response and recommendations related to accessways, Section -0045(3)(e). Access between adjacent uses – See response and recommendations related to accessways, Section -0045(3)(e).

	(7) Local governments shall establish standards for local streets and accessways that minimize pavement width and total ROW consistent with the operational needs of the facility. The intent of this requirement is that local governments consider and reduce excessive standards for local streets and accessways in order to reduce the cost of construction, provide for more efficient use of urban land, provide for emergency vehicle access while discouraging inappropriate traffic volumes and speeds, and which accommodate convenient pedestrian and bicycle circulation. Notwithstanding section (1) or (3) of this rule, local street standards adopted to meet this requirement need not be adopted as land use regulations.	Linn County Development Code currently does not specify right-of-way (ROW) requirements for transportation facilities according to functional classification. LCC 935.020 (Access requirements; level of use) includes minimum ROW requirements for private roads, local access roads, easements, flag-lots, and private driveways according to the number of homesites served and conditions for reduced ROW requirements. Provisions allowing for reduced ROW on all other County roads currently do not exist. **Recommendation:** It is recommended that ROW width standards along with conditions allowing for widths below ROW minimums be included in LCC 935, or references to the updated roadway standards in the TSP be added.	

TPR Requirement	Land Development Code References and Recommendations
OAR 660-12-0060	
Amendments to functional plans, acknowledged comprehensive plans, and land use regulations that significantly affect an existing or planned transportation facility shall assure that allowed land uses are consistent with the identified function, capacity, and performance standards of the facility.	LCC 921.800 to 921.899 provide procedures for amendments to the Land Development Code and Comprehensive Plan. Amendments can be a legislative Type IIIA or quasi-judicial Type IIIB action. LCC 921.822(B) (Decision criteria for Zoning Map amendments) and LCC 921.874(A) (Decision criteria for Plan map amendments) requires findings that the amendment will not have a significant adverse impact on transportation facilities. Standards that specifically define what's considered an adverse impact in relation to the functional classification of the transportation facility are not currently included or referenced in LCC 921. **Recommendation:** Update County procedures to be consistent with/include reference to TPR -0060.

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Section D:

Tech Memo 3: Funding Assumptions

The contents of Volume 2 represent an iterative process in the development of the TSP. Refinements to various plan elements occurred throughout the process as new information was obtained. In all cases, the contents of Volume 1 supersede those in Volume 2.

MEMORANDUM

DATE: February 17, 2016

TO: Linn County TSP Project Management Team

FROM: Carl D. Springer, PE, PTOE - DKS Associates
Julie Sosnovske, PE - DKS Associates

SUBJECT: Linn County Transportation System Plan
Technical Memorandum #3: Funding Assumptions P14180-010

This document details the transportation funding that is expected to be available through 2040. The funding assumptions will help prioritize the investments the County can make in the transportation system, and will be utilized to develop reasonable budgeting assumptions when selecting a set of transportation improvements to meet identified needs through 2040.

Current Funding Sources

The County uses several funding sources for transportation, including funds from the State Highway Trust Fund, Federal Forest Payments, grants and other sources, including the Surface Transportation Program (STP).

The State Highway Trust Fund makes distributions from the state motor vehicle fuel tax, vehicle registration fees, and truck weight-mile fees on a per capita basis. Cities and counties receive a share of State Highway Trust Fund monies, and by statute may use the money for any road-related purpose, including walking, biking, bridge, street, signal, and safety improvements.

The state gas tax funds previously have failed to keep up with cost increases and inflation. With increased fuel efficiency of vehicles and the State's emphasis on reducing vehicle miles traveled, the real revenue collected gradually has eroded over time. In an effort to offset the relative decline in contribution of state funds, the 2009 legislature passed the Oregon Jobs and Transportation Act (Oregon House Bill 2001). It increases transportation-related fees including the state gas tax and vehicle registration fees as a fixed amount at the time a vehicle is registered with the Department of Motor Vehicles. Vehicle registration fees in Oregon increased from $27 to $43 per vehicle per year for passenger cars, with similar increases for other vehicle types. The gas tax in Oregon increased on January 1, 2011 by six cents, to 30 cents per gallon, the first increase in the state gas tax since 1993. It currently remains at 30 cents per gallon.[1]

Linn County also receives Federal Forest Payment funds. These funds dropped substantially due to a reduction in logging in the Northwest to protect the spotted owl and salmon, but were replaced with

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[1] www.oregon.gov/ODOT/CS/FTG/pages.reqgasdiscl.aspx, visited November 20, 2015.

subsidies to replace this income over the past 20 years. However, these subsidies are no longer secure and are voted on year by year.

Federal Highway Trust Funds are received from federal motor vehicle fuel tax and truck-related weight mile charges. The six-year Federal Transportation Authorization Act allocates funds through various programs. Federal Highway Trust Funds from the Surface Transportation Program (STP) flow to the states that use them primarily for safety, highway, and bridge projects. Linn County receives a portion of these funds based upon actual population. Typically, these funds are exchanged with the state for more flexible funds without the constraints of federal requirements.[2]

Estimated 2040 Revenues

Linn County will collect almost $17 million annually in revenues from existing sources through 2040 (see Table 1). Over the past five years, Linn County averaged annually about $7 million in State gas tax and vehicle registration fee revenue, about $3.8 million in Federal Forest Payment revenue, and almost $6 million from a variety of other sources (e.g. FEMA, interest, grants, other). Assuming, as a conservative estimate,[3] similar levels in the future, Linn County can expect to receive through 2040, almost $420 million in State gas tax and license fee, Federal Forest Payment, Grants and other revenue.

State law requires that the County must set aside a minimum of one percent of the State gas tax and vehicle registration funds received for construction and maintenance of walking and bicycling facilities. In Linn County, this represents approximately $70,000 per year and approximately $1.75 million through 2040.

The County received approximately $2.3 million annually in other revenues over the past seven years, which includes about $600,000 in STP funds. Keeping this revenue level consistent, this represents about $56 million through 2040.

Estimated 2040 Expenditures

Expenditures will approach $420 million through 2040. The County will spend the majority of the funds, about $260 million through 2040 on materials and services and personnel services. In addition, the County will spend over $210 million on capital outlay and other expenditures.

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[2] Per Darrin Lane, Linn County Roadmaster, email November 9, 2015.
[3] This assumes the population growth rate in Linn County will be roughly the same as the cost inflation rate, therefore, maintaining existing revenues through 2040.

Table 1:
Linn County Transportation Funding (2015 Dollars)

Revenue Source	Average Annual Amount	Estimated Amount Through 2040
State Gas Tax and License Fees	$7,010,000	$175,250,000
Grants	$3,400,000	$85,000,000
Federal Forest Payments	$3,810,000	$95,250,000
FEMA	$130,000	$3,250,000
Interest	$170,000	$4,250,000
Other	$2,260,000	$56,500,000
Total Revenue (7-year Average)	***$16,780,000***	***$419,500,000***
Expenditures	**Average Annual Amount**	**Estimated Amount Through 2040**
Personnel Services	$6,650,000	$166,250,000
Materials and Services	$3,790,000	$94,750,000
Capital Outlay	$5,680,000	$142,000,000
Other	$2,870,000	$71,750,000
Total Expenditures (7-year Average)	***$18,990,000***	***$474,750,000***
Expected Funds for Capital Improvements	**Average Annual Amount**	**Estimated Amount Through 2040**
Net Revenue (Revenues – Expenditures)	-$2,210,000	-$55,250,000
Existing Fund Balances (2014-15 Fiscal Year)		$21,087,862
Total Funds for County Street Improvement Needs (Net Revenue + Existing Balance)		***-$34,162,138***

Funding Summary

Based on current funding levels, the County expects to have a shortage of about $34 million to fund projects in the TSP. The County can reasonably likely assume between $15 and $20 million from the state[4], based on County unincorporated population, to cover investments along state highways and the local transportation network over the next 20 years. The County may wish to consider expanding its funding options in order to help make up for the shortage and to fund more of the desired improvements in a timely manner. As a comparison, Table 2 summarizes expected horizon year funding per capita for similar Oregon counties.

[4] Per Terry Cole, ODOT Region 2, September 8, 2015.

Table 2: County Transportation Funding Horizon Year Comparison			
County	Horizon Year Population	Horizon Year Estimated Net Revenue	Revenue/ Population
Yamhill	143,000	$6,000,000	$42
Clatsop	40,500	$3,740,000	$92
Columbia	64,000	-$109,400,000	-$1,709
Linn	157,000	-$54,860,117	-$349

Potential Additional Funding Sources

New transportation funding options include local taxes, assessments and charges, and state and federal appropriations, grants, and loans. Factors that constrain these resources include the willingness of local leadership and the electorate to burden citizens and businesses with taxes and fees; the portion of available local funds dedicated or diverted to transportation issues from other competing County programs; and the availability of state and federal funds. The County must consider all opportunities for providing or enhancing funding for the transportation improvements included in the TSP.

Counties and cities have used the following sources to fund the capital and maintenance aspects of their transportation programs. As described below, they may help to address existing or new needs identified in Linn County's TSP.

Local Fuel Tax

Fourteen cities and two counties in Oregon have adopted local gas taxes ranging from one to five cents per gallon. The fuel distributers pay collected taxes to the jurisdictions monthly. Newport increases its local gas tax during the summer months to place more of a burden on visitors than on year-round residents. Linn County also may want to implement a local gas tax. The process for presenting such a tax to voters would need to be consistent with Oregon State law as well as the laws of the County.

System Development Charges

System development charges (SDC) are fees collected from new development and used as a funding source for all capacity adding projects for the transportation system. The funds collected can be used to construct or improve portions of roadways impacted by applicable development. The SDC is collected from new development and is a one-time fee. The fee is based on the proposed land use and size, and is proportional to each land use's potential PM peak hour vehicle trip generation. Linn County does not currently collect SDCs. The County may wish to pursue vehicle and/or pedestrian and bicycle SDC's to fund transportation projects for new developments. Many of the transportation improvements in the TSP would be 100 percent fundable through SDC's. If an SDC rate program is desired, a rate study would be required to determine appropriate fees based on capacity projects costs, growth potential and local preferences. SDCs may not make sense for rural Linn County since most development occurs within city UGBs.

ODOT Statewide Transportation Improvement Program (STIP) Enhance Funding

ODOT has modified the process for selecting projects that receive STIP funding to allow local agencies to receive funding for projects off the state system. Projects that enhance system connectivity and improve multi-modal travel options are the focus. The updated TSP prepares the city to apply for STIP funding.

ODOT Highway Safety Improvement Program (HSIP) Funding

With significantly more funding under the HSIP and direction from the Federal Highway Administration to address safety challenges on all public roads, ODOT will increase the amount of funding available for safety projects on local roads. ODOT will distribute safety funding to each ODOT region, which will collaborate with local governments to select projects that can reduce fatalities and serious injuries, regardless of whether they lie on a local road or a state highway.

ODOT entered into a memorandum of understanding with AOC (Association of Oregon Counties) and LOC (League of Oregon Cities) that establishes that all Oregonians share the roads and that safety is everyone's concern. The common purpose is to reduce fatal and serious injuries on all public roads through a data driven process.[5] The program is referred to as the All Roads Transportation Safety Program (ARTS). The ARTS program funds are separated into two categories – systemic and hot spots. The 2017 – 2021 STIP timeframe includes funding for the first round of ARTS projects.

Debt Financing

A community can use debt financing to pay for significant capital improvement projects and spread costs over the useful life of a project. This equitable funding strategy spreads the burden of repayment over existing and future customers who will benefit from the projects. Debt service must have a funding source to fulfill annual interest and repayment obligations.

[5] All Roads Transportation Safety Program: Key Facts – 2015, program information through April 30, 2015.

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Section E:

Tech Memo 4: TSP Goals, Policies, and Performance Measures

The contents of Volume 2 represent an iterative process in the development of the TSP. Refinements to various plan elements occurred throughout the process as new information was obtained. In all cases, the contents of Volume 1 supersede those in Volume 2.

MEMORANDUM #4

DATE: January 28, 2016

TO: Linn County TSP Project Management Team

FROM: Carl D. Springer, DKS Associates
Julie Sosnovske, DKS Associates

SUBJECT: **Linn County Transportation System Plan |** P14180-010
Task 3.3 Technical Memorandum #4 – Initial Goals and Policies

This memorandum initiates the discussion about a new framework for Linn County's transportation-related vision, goals, and objectives. This discussion will continue throughout the planning process, shaped by input received from the Project Advisory Committee (PAC) and the general public.

A Guiding Framework for Transportation Planning

The process of identifying a vision, goals, and objectives helps describe the transportation system that best fits Linn County's values and guides how the Transportation System Plan (TSP) will be developed and implemented. This process typically begins with the development of a **vision statement**, which is an imaginative description of the desired condition in the future. It is important that the vision statement align with the community's core values.

Goals and objectives create manageable stepping stones through which the broad vision statement can be achieved. **Goals** are the first step down from the broader vision. They are still somewhat general in nature and should be challenging, but not unreasonable. Each goal must be supported by more finite **objectives**. In contrast to goals, objectives should be specific and measurable. Where feasible, providing a targeted time period helps with objective prioritization and achievement.

The solutions recommended through the TSP must be consistent with the goals and objectives. To accomplish this, measurable evaluation criteria will be developed as part of the process to screen and prioritize TSP actions.

The vision, goals, and objectives can be refined continuously throughout the TSP process. Towards the end of the process, when solutions have been identified, **policy** statements to guide future decisions can be developed to help the county implement plan recommendations.

Transportation Vision

All transportation modes flow smoothly and safely to and throughout the county, meeting the needs of residents, businesses, visitors, and people of all physical and financial conditions. Existing transportation assets are protected and complemented with multi-modal improvements.

Transportation Goals and Objectives

The goals and objectives were developed in order to articulate clear and succinct direction, incorporating key elements of the County's existing policies. These goals and objectives will be revised based on input provided by the PMT and Project Advisory Committee (PAC). A comparison of the former policy format is provided in the appendix to map out which elements were placed under the new goals and objectives framework.

Evaluation Criteria

Project alternatives developed through this update will be evaluated by criteria that are an extension from the goals and objectives. These project level criteria provide a point-based technical rating method that will be used to evaluate how well proposed design alternatives meet the measure of effectiveness criteria. By summing ratings (and weighting if desired), alternatives can be compared. In this way, a consistent method will be used to evaluate and rank the alternatives.

Evaluation Criteria and Scoring Methodology

The evaluation criteria were selected based on the County's proposed transportation related goals and objectives. The criteria focuses on compliance with state and local plans and policies, engineering design requirements, and a desire to maximize positive (and minimize negative) economic, social (livability), and environmental impacts. Table 1 lists the evaluation criteria and the corresponding scoring methodology.

Initial Draft Goals, Objectives and Evaluation Criteria

The following pages present the initial draft goals, objectives and evaluation criteria for each major element in the Linn County Transportation Plan.

Goal 1: Mobility - Provide for efficient motor vehicle travel to and through the county.

Objective 1a: Develop a program to systematically implement improvements that enhance mobility at designated high-priority locations.

Objective 1b: Adopt a standard for mobility to help maintain a minimum level of motor vehicle travel efficiency and by which land use proposals can be evaluated. State and City mobility standards will be supported on facilities under the respective jurisdiction.

Objective 1c: Identify opportunities to reduce the use of state highways for local trips.

Objective 1d: Establish and maintain a functional classification system that provides a plan for system purpose and design.

Objective 1e: Manage access to highways, arterials, and collectors where practical to improve safety, and to reduce congestion and conflicting travel patterns. Support consolidated and shared access points.

Objective 1f: Prioritize paving gravel roads that meet the County's criteria.

Measure of Effectiveness	Evaluation Score	
Street Connectivity Connection enhances system efficiency.	+4	Improves system efficiency
	+2	Improves efficiency of a localized area, but has no impact on efficiency of the system
	0	No change
	-2	Improves efficiency of a localized area, but may detract from the efficiency of another location
	-4	Negative impact on system efficiency
Alternative Local Routes Improvement reduces reliance on state highways for shorter local trips.	+4	Significantly reduces reliance on state highways for shorter local trips
	+2	Reduces reliance on state highways for shorter local trips
	0	No change
	-2	Increases reliance on state highways for shorter local trips
	-4	Significantly increases reliance on state highways for shorter local trips
Daily Traffic Capacity Optimize daily traffic capacity.	+4	Significantly optimizes daily traffic capacity
	+2	Optimizes daily traffic capacity
	0	No change
	-2	Reduces daily traffic capacity
	-4	Significantly reduces daily traffic capacity

Goal 2: Active Transportation - Increase the convenience and availability of pedestrian and bicycle modes.

Objective 2a: Identify improvements (e.g., street lighting, bike parking) that complement pedestrian and bicycle facilities such as sidewalks and bike lanes and that encourage more use of these facilities.

Objective 2b: Improve walking and biking connections to county amenities.

Objective 2c: Enhance way finding signage for those walking and biking, directing them to bus stops, and key routes and destinations.

Objective 2d: Promote walking, bicycling, and sharing the road through public information and programming.

Objective 2e: Identify necessary changes to the land development code to ensure connectivity between compatible land uses for pedestrian and bicycle trips.

Objective 2f: Support rails-to-trails program when opportunities arise.

Measure of Effectiveness	Evaluation Score	
Pedestrian and Bicycle Improvements Adds pedestrian and bicycle improvements that fill in system gaps, improve system connectivity, and are accessible to all users.	+4	Significantly improves pedestrian or bicycle connectivity or accessibility
	+2	Improves pedestrian or bicycle connectivity or accessibility
	0	No change
	-2	Reduces pedestrian or bicycle connectivity or accessibility
	-4	Significantly reduces pedestrian or bicycle connectivity or accessibility
Access to Community Destinations Improve walking and biking connections to community destinations such as schools, parks and social services.	+4	Significantly enhances pedestrian or bicycle access to community destinations
	+2	Enhances pedestrian or bicycle access to community destinations
	0	No change
	-2	Reduces pedestrian or bicycle access to community destinations
	-4	Significantly reduces pedestrian or bicycle access to community destinations
Facility Amenities or Furnishings Improves user experience and comfort to encourage higher levels of walking and biking trips (e.g., provide benches, planter strips, lighting, wayfinding)	+4	Significantly improves facility amenities
	+2	Improves facility amenities
	0	No change
	-2	Negatively impacts facility amenities
	-4	Significantly negative impacts on facility amenities

Goal 3: Transit - Provide transit service and amenities that encourage a higher level of ridership.

Objective 3a: Identify locations for designated park-and-ride lots.

Objective 3b: Locate transit stops in locations that are safe and convenient for users.

Objective 3c: Identify areas that support additional transit services, and coordinate with transit providers to improve the coverage, quality and frequency of services

Objective 3d: Identify improvements (e.g., sidewalk and bicycle connections, shelters, benches) that complement transit facilities such as bus stops and that encourage higher usage of transit.

Objective 3e: Coordinate countywide transit services, facilities, and improvements with local jurisdictions.

Objective 3f: Encourage and support carpooling, vanpooling, shared mobility, telecommuting and staggered work shifts as alternatives for reducing congestion.

Objective 3g: Support statewide and regional transit opportunities, including high-speed rail and passenger rail.

Measure of Effectiveness	Evaluation Score	
Transit Access Improves access to transit facilities. Promotes transit as a viable alternative to the single occupant vehicle.	+4	Significantly improves access to transit facilities
	+2	Improves access to transit facilities
	0	No change
	-2	Negatively impacts access to transit facilities
	-4	Significantly negative impacts on access to transit facilities
Transit Amenities or Facilities Improves user experience and comfort to encourage higher levels of transit ridership (e.g., provide benches, shelters, lighting, schedules)	+4	Significantly improves amenities or facilities for transit
	+2	Improves amenities or facilities for transit
	0	No change
	-2	Negative impact on amenities or facilities for transit
	-4	Significantly negative impacts on amenities or facilities for transit

Goal 4: Equity - Provide an equitable, balanced and connected multi-modal transportation system.

Objective 4a: Ensure that the transportation system provides equitable access to underserved and vulnerable populations (e.g. those who cannot obtain their own transportation due to a disability, age, or income).

Objective 4b: Identify new or improved transportation connections to enhance system efficiency.

Objective 4c: Ensure that existing and planned pedestrian throughways are clear of obstacles and obstructions (e.g., utility poles).

Objective 4d: Provide connections for all modes that meet applicable county and Americans with Disabilities Act (ADA) standards.

Objective 4e: Provide for multi-modal circulation internally on site and externally to adjacent land use and existing and planned multi-modal facilities.

Objective 4f: Support connectivity between the various communities within the county and nearby (e.g. Harrisburg and Mill City).

Objective 4g: Facilitate intermodal connectivity for automobile, air, rail, bicycling and pedestrian access.

Measure of Effectiveness	Evaluation Score	
Multiple Travel Modes Connection or improvement serves a variety of travel modes.	+4	Serves more than two travel modes
	+2	Serves more than one travel mode
	0	Serves single travel mode
	-2	Serves single travel mode, but has a negative impact on another
	-4	Serves single travel mode, but has negative impact on more than one travel mode
Connected System Improves access to all areas of the county.	+4	Significantly increases access to all areas of the county
	+2	Increases access to all areas of the county
	0	No change
	-2	Decreases access to all areas of the county
	-4	Significantly decreases access to all areas of the county
Accommodate all Ages Improves accessibility for all ages and supports travel independence in the county.	+4	Connection or improvement benefits residents of all ages
	+2	Connection or improvement benefits some residents, but not all
	0	No change
	-2	Connection or improvement benefits some residents, but has a negative impact on another age group
	-4	Connection or improvement benefits some residents, but has a negative impact on more than one age group

Goal 5: Heath and Safety - Enhance the health and safety of residents.

Objective 5a: Identify improvements to address high collision locations and improve safety for walking, biking and driving trips in the county.

Objective 5b: Enhance existing highway crossings for walking and biking users.

Objective 5c: Identify deficient locations in the county where enhanced street crossings for walking and biking users are needed.

Objective 5d: Identify investments needed along Seismic Lifeline Routes.

Objective 5e: Improve the visibility of transportation users in constrained areas, such as on hills and blind curves.

Objective 5f: Install amenities at signalized pedestrian crossings to improve safety of underserved and vulnerable populations (e.g., chirpers, tactile crossings).

Objective 5g: Identify programs that encourage walking and bicycling, and educate regarding good traffic behavior and consideration for all users.

Objective 5h: Prioritize projects that improve safety for all users and identify opportunities for including system management solutions.

Objective 5i: Identify routes that should be restricted to transport of hazardous materials, consistent with Federal Motor Carrier Safety Regulations.

Measure of Effectiveness	Evaluation Score	
Safety Improves public safety (e.g., visibility of transportation users in constrained areas, street lighting, emergency vehicle access)	+4	Significantly improves public safety
	+2	Improves public safety
	0	No change
	-2	Has potential for reducing public safety
	-4	Has potential for reducing public safety significantly
Health Encourages active living and physical activity.	+4	Significantly encourages active living and physical activity
	+2	Encourages active living and physical activity
	0	No change
	-2	Discourages active living and physical activity
	-4	Significantly discourages active living and physical activity
Emergency Routes Enhances awareness and reliability of Seismic Lifeline Routes.	+4	Significantly enhances awareness and reliability of Hazardous Materials and Seismic Lifeline Routes
	+2	Enhances awareness and reliability of Hazardous Materials and Seismic Lifeline Routes
	0	No change
	-2	Worsens awareness and reliability of Hazardous Materials and Seismic Lifeline Routes
	-4	Significantly worsens awareness and reliability of Hazardous Materials and Seismic Lifeline Routes

Goal 6: Sustainability - Foster a sustainable transportation system.

Objective 6a: Develop and support reasonable alternative mobility targets for motor vehicles that align with economic and physical limitations on state highways and County streets where necessary.

Objective 6b: Minimize impacts to the scenic, natural and cultural resources in the county.

Objective 6c: Support alternative vehicle types by identifying potential electric vehicle plug-in stations and developing implementing code provisions.

Objective 6d: Maintain the existing transportation system assets to preserve their intended function and maintain their useful life.

Objective 6e: Identify opportunities to improve travel reliability with system management solutions.

Objective 6f: Identify stable and diverse revenue sources for transportation investments to meet the needs of the county.

Objective 6g: Consider costs and benefits when identifying project solutions and prioritizing public investments.

Objective 6h: Identify new and creative funding sources to leverage high priority transportation projects.

Objective 6i: Utilize transparency when determining transportation system investments.

Objective 6j: Support travel options that allow individuals to reduce single-occupant vehicle trips

Objective 6k: Support and encourage transportation system management (TSM) and transportation demand management (TDM) solutions to congestion

Objective 6l: Implement access management strategies to preserve capacity on the roadway system.

Objective 6m: Establish and maintain a traffic monitoring program on all County-owned arterial and collector roadways (e.g. traffic counts, crash data, pavement condition).

Measure of Effectiveness	Evaluation Score	
Environment Minimizes impact to the natural environment.	+4	Significantly enhances the natural environment
	+2	Enhances the natural environment
	0	No change
	-2	Negatively impacts the natural environment
	-4	Negatively impacts the natural environment in significant ways
Improved Roadway Efficiency Implements Transportation Demand Management (TDM) and Transportation System Management (TSM) or other strategies to create greater mobility, reduce auto trips, make more efficient use of the roadway system, and minimize air pollution.	+4	Significantly improves roadway efficiency
	+2	Improves roadway efficiency
	0	No change
	-2	Negatively impacts roadway efficiency
	-4	Significantly negative impact on roadway efficiency

Goal 7: Economy - Ensure the transportation system supports a prosperous and competitive economy.

Objective 7a: Improve the freight system efficiency, access, capacity and reliability.
Objective 7b: Identify transportation improvements that will enhance access to employment.
Objective 7c: Increase the distribution of travel information to maximize the reliability and effectiveness of highways.

Objective 7d: Adequately services the needs of agricultural and forest enterprises.

Measure of Effectiveness	Evaluation Score	
Freight Improves freight access/connectivity and accommodates deliveries.	+4	Significantly improves freight facilities
	+2	Improves freight facilities
	0	No change
	-2	Negatively impacts freight facilities
	-4	Significantly negative impacts on freight facilities
Employment Enhances access to employment.	+4	Significantly enhances travel comfort and convenience to employment in the county.
	+2	Enhances travel comfort and convenience to employment in the county.
	0	No change
	-2	Negative impact on travel comfort and convenience to employment in the county.
	-4	Significantly negative impacts on travel comfort and convenience to employment in the county.

Goal 8: Coordination - Coordinate with local and state agencies and transportation plans.

Objective 8a: Coordinate with the Linn County Parks and Recreation Master Plan regarding trail guidelines and connections between parks, recreation areas, and trails.

Objective 8b: Develop TSP policy and municipal code language to implement the TSP update.

Objective 8c: Meet the requirements of the Oregon Transportation Planning Rule.

Objective 8d: Coordinate with the Oregon Transportation Plan and associated modal plans.

Objective 8e: Coordinate regional project development and implementation with local jurisdictions (e.g., evacuation routes, countywide transit, and jurisdictional transfer of roadways).

Objective 8f: Coordinate with local agency Transportation System Plans and Public Transportation Plans.

Objective 8g: Coordinate the development of transportation facilities with other elements of the Comprehensive Plan policies.

Objective 8h: Encourage preservation of rail right-of-way for both rail and other transportation mode (e.g. rails-to-trails) uses.

Objective 8i: Coordinate with ODOT to encourage improvements on state facilities in Linn County (in particular, additional lanes on I-5 north of OR 34 and redesign of the OR 34/OR 34 Bypass) to address safety, mobility and economic concerns.

Measures of Effectiveness	Evaluation Criteria
No measures of effectiveness for Goal 8, this is required for all solutions.	No evaluation criteria for Goal 8, this is required for all solutions.

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Section F:

Tech Memo 5: Existing Transportation Conditions

The contents of Volume 2 represent an iterative process in the development of the TSP. Refinements to various plan elements occurred throughout the process as new information was obtained. In all cases, the contents of Volume 1 supersede those in Volume 2.

MEMORANDUM #5

DATE: May 13, 2016

TO: Linn County TSP Project Management Team

FROM: Carl D. Springer, PE, PTOE, Julie Sosnovske, PE, Ben Chaney, EIT – DKS Associates

SUBJECT: **Linn County Transportation System Plan**
Technical Memorandum #5: Existing Transportation Conditions P11086-016

The purpose of this memorandum is to describe the current transportation system within Linn County, Oregon. The focus of this review is on the county maintained facilities that are located outside of incorporated city limits. State highways are also reviewed, with the exception of Interstate 5. Our findings are summarized in the final section of this memo, which highlights locations where there are key gaps or deficiencies in the transportation system.

What Makes Linn County Unique?

In the heart of the Willamette Valley, Linn County is home to many outdoor and recreational opportunities, eight covered bridges, vast farmland, and beautiful scenery. Visitors are drawn to the county's rivers and lakes, covered bridges, hiking and camping, skiing, and more. National and Oregon State Scenic Byways connect the forests and wildernesses in the east county to Interstate 5. The major roadways and study intersections in Linn County are shown in Figure 1.

Linn County's principal industries are wood products, agriculture, mining, and manufacturing. Linn County's economy relies heavily on the lumber and wood products industry; in 1990, this industry accounted for 40% of the county's manufacturing jobs. The climate and soil conditions provide one of Oregon's most diversified agriculture areas, allowing a wide variety of specialty crops such as common and perennial ryegrass.

Linn County Facts

Population: 119,356 (2014)

Land area: 2,297 square miles

County seat: Albany

Incorporated cities: Albany, Brownsville, Gates (part), Halsey, Harrisburg, Idanha (part), Lebanon, Lyons, Mill City (part), Millersburg, Scio, Sodaville, Sweet Home, Tangent, Waterloo

Annual rainfall: 62 inches

County maintained roadway: Over 1,270 centerline miles

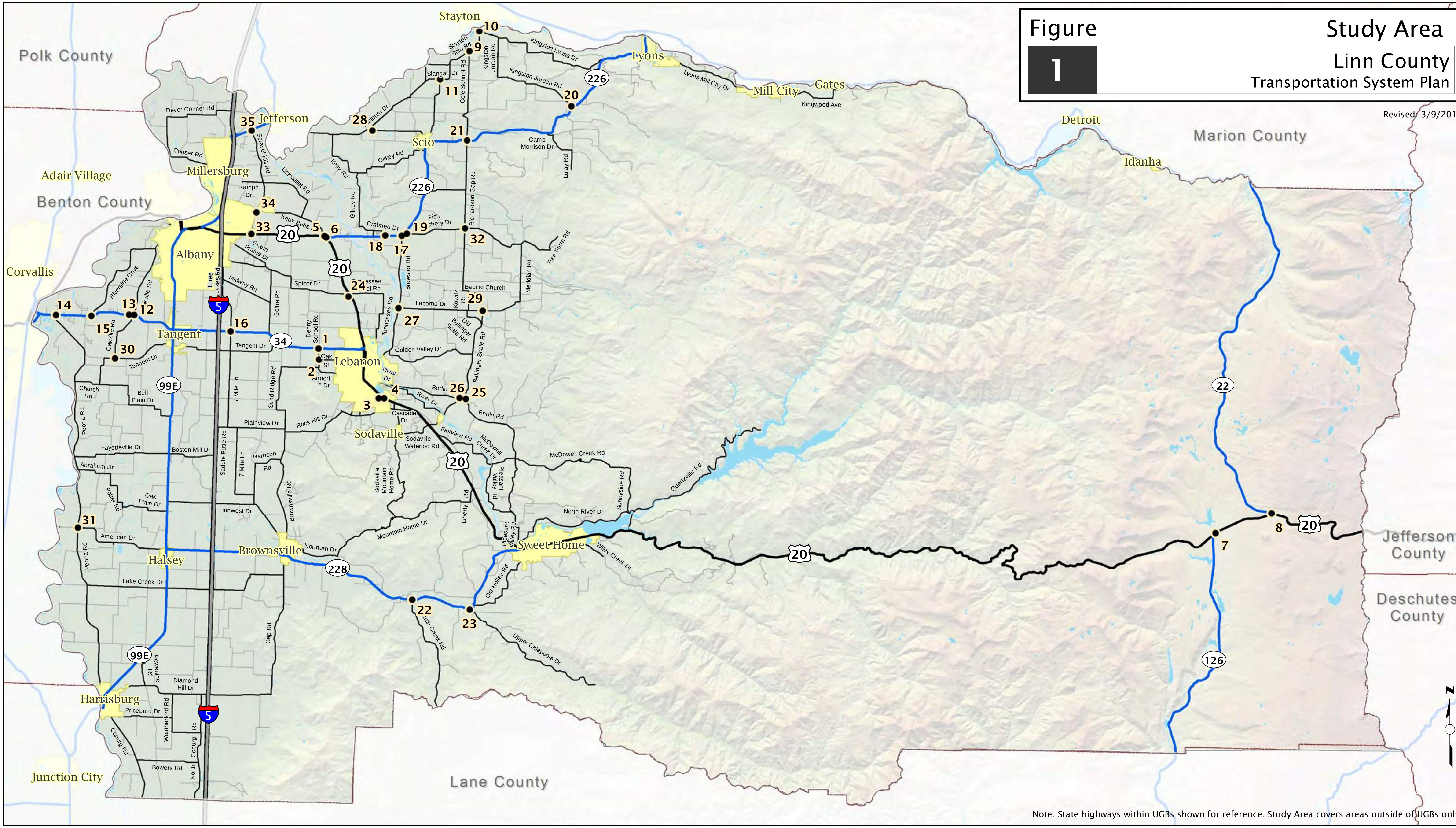


Figure 1

Study Area

Linn County Transportation System Plan

Revised: 3/9/2016

Note: State highways within UGBs shown for reference. Study Area covers areas outside of UGBs only.

Legend

Route Type

- Interstate
- U.S. Routes
- Oregon Routes
- County Arterials and Collectors
- County Local Roads
- Study Intersections
- Water
- Urban Growth Boundary

Linn County Transportation System Plan

Where Do People Want To Go?

One of first steps in planning for an effective transportation system is gaining an understanding of the key destinations that people currently travel to throughout the county. These destination points are referred to as activity generators (or trip attractors).

Linn County, most known for its outdoor and recreational attractions, is home to numerous destinations that attract tourists and residents alike. The most common categories of activity generators in the county include.

- Recreational/Entertainment (e.g. rivers, Green Peter Reservoir, Clear Lake Resort, Riverbend and Whitcomb Creek County Parks, Linn County Expo Center)
- Schools (e.g. Linn-Benton Community College, The College of Osteopathic Medicine of the Pacific-Northwest, local high schools)
- Places of employment (e.g. hospitals, business areas, industrial areas, offices)
- Shopping (e.g. Albany, Lebanon, Sweet Home)
- Cultural (e.g. Covered Bridges, Linn County Historical Museum)
- Public Transportation (e.g. Linn Shuttle, Albany Transit, Linn-Benton Loop, Valley Retriever, Hut Airport Shuttle, local dial-a-ride programs)

How Do People Get There?

Most Linn County residents commuted to work between the years of 2009 and 2013 via single occupant motor vehicles (about 79 percent). About ten percent of those carpooled to work. Approximately six percent worked at home, two percent walked, one percent biked, and less than one percent used public transit.

Table 1 compares the commute patterns of Linn County residents to other neighboring counties. Carpooling and telecommuting mode shares are similar for each of the counties, however, walking, biking and public transportation rates are typically lower in Linn County. Less than five percent of employees in Linn County walked, biked or took public transportation, compared to about 9-19 percent in Marion, Lane and Benton Counties. More residents drove alone in Linn County than in any of the other counties (about six to eight percent more).

Although the U.S. Census Bureau is a valuable source of information for work-related commute patterns in Linn County, it does not truly represent the transportation modes utilized to other activity generators like schools, recreation, shopping or access to transit. Non-motor vehicle transportation modes are likely higher within the city limits of Albany, Lebanon, and Sweet Home.

Table 1: Transportation Modes Used to Commute to Work

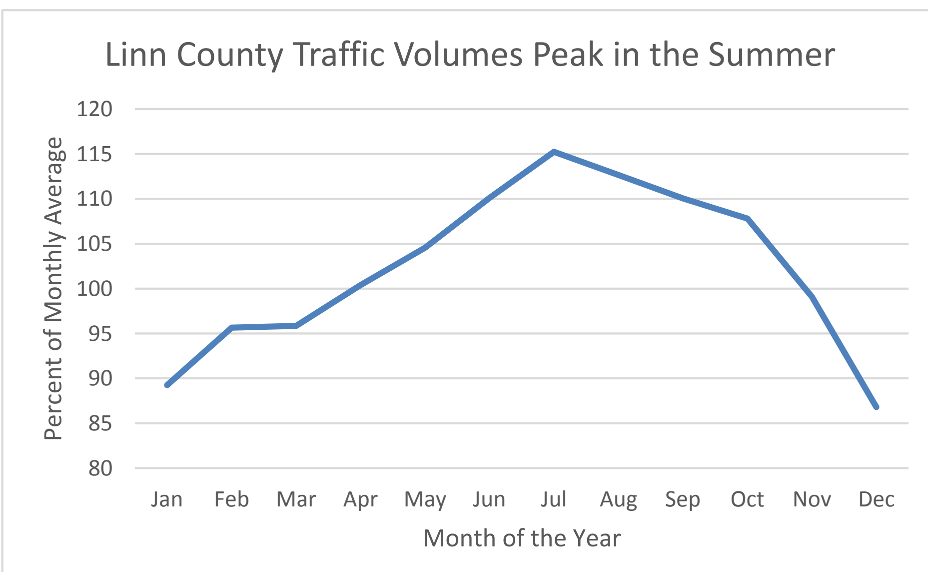
Transportation Mode	Percent of Commuters			
	Linn County	Benton County	Marion County	Lane County
Workers over 16 years	47,500	39,000	130,800	149,800
Motor Vehicle- Single Occupant	79%	72%	73%	71%
Motor Vehicle- Carpool	10%	9%	15%	10%
Walked	2%	9%	4%	5%
Biked / Other	1%	8%	1%	5%
Public Transportation	0%	2%	4%	3%
Worked at Home	6%	8%	4%	6%

Source: US Census Bureau, 2009-2013 American Community Survey 5-Year Estimates

How Transportation Modes are used in the County

Detailed traffic counts of pedestrian, bicycle, and motor vehicle activity at key intersections throughout Linn County were recorded during the late afternoon and evening peak period (3:00 p.m. to 6:00 p.m.) in late May. Analysis of seasonal trends using data from always-on automated traffic recorders[1] shows that activity levels in April or early May generally represent typical average weekday traffic conditions in the county (see Figure 2).

Figure 2: Typical Traffic Volume Profile for Highways in Linn County



[1] Based on average of four ATR's in Linn County.

During the summer, traffic volumes increase as over 30 percent on some major highways throughout the county. This summer increase is due to the overall pleasant weather and longer days enticing residents and visitors of Linn County to get out and travel to various activity generators throughout the county. It should be noted that although weekend pedestrian and bicycle activity levels were not measured, they would generally be expected to be higher than the activity levels of a typical weekday in Linn County.

- **Pedestrian volumes** are generally higher within the downtown cores of the major cities in Linn County (e.g., Albany, Lebanon, Sweet Home, Harrisburg). Outside of these downtown cores, pedestrian volumes are relatively low. The highest observed pedestrian activity occurred at the OR 34/Peoria Road intersection just east of Corvallis, with eight pedestrian crossings in a three hour period. Noticeable pedestrian activity also occurred at the Upper Calapooia Drive/OR 228 intersection and the Brewster Road/Lacomb Drive intersection, with four pedestrian crossings each in a three hour period. During this three hour evening peak observation period, there was no pedestrian activity at any of the remaining study intersections.
- **Bicycle volumes** observed were also generally low during the evening peak period, with the majority of the study intersections having no bicycle activity. The OR 34/Peoria Road intersection just east of Corvallis had the highest observed bicycle volumes, with two bicyclists in the three hour evening peak period. A few other intersections (US 20/Crowfoot Road, Waterloo Road/Berlin Road, Oakville Road/Tangent Drive) each had one bicyclist during the evening peak period.
- **Motor vehicle volumes** on the roadways in Linn County peak during the evening starting around 3:30 p.m., but generally vary based on location and depending on the time of year. During the summer months, traffic volumes increase somewhat due to recreational traffic. For this reason, the traffic count data was adjusted to represent two separate conditions: summer and average weekday. The final p.m. peak summer and average weekday traffic volumes developed for the study intersections are included in the appendix.

Where Do People Come From?

Most of the trip destinations in Linn County are related to employment and recreation. These trips either originate within the county or enter from the various regional facilities connecting Linn County to adjacent counties.

Linn County Employees

The majority of the workers in Linn County also live within the county (about 54 percent). However, just under half of the workers live outside their city of employment (about 45 percent).[2] The majority of workers are employed in Albany (54%), followed by Lebanon (17%), Sweet Home (9%), Harrisburg (5%), with the rest spread throughout the county (e.g. Brownsville, South Lebanon, Tangent, Lyons, Millersburg and Mill City).

What Factors Affect how People Travel?

Travelers are often influenced by a number of factors when deciding how to get to a destination. Whether the trip will be via motor vehicle, walking, bicycle, or public transportation, the choice is often a balance between cost, time, and convenience of travel.

Where are you going? Whether you are going to work, school, shopping, or to a park, your trip type often determines your mode of transportation. Those destined for a park or school generally have a higher likelihood to walk or bicycle than those going to work or shopping. The distance of that destination plays a role in mode choice. Trips that are shorter generally present a better opportunity to walk or bicycle; longer distance trips more often require transit or motor vehicle modes.

Will you have to cross a busy road or walk along a road without sidewalks? The availability of sidewalks, curb ramps to provide wheelchair access, crosswalks, and bicycle lanes increases the comfort and access of walking and biking. A lack of these facilities, particularly on higher volume or higher speed roadways, discourages people from utilizing non-motor vehicle modes of transportation.

Where you work and how long it takes you to get there. Most Linn County residents (about 55 percent) who have jobs work within their respective cities. Around eight percent of Linn County residents work outside the county.[3] On average, Linn County residents travel about 20 minutes to work and typically commute via motor vehicle.[4]

What public transportation service is available? Distance to bus stops, frequency of service, route coverage, connections to other transportation options, and amenities at stops are some of the factors that play a role in a user's decision to utilize public transportation.

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[2] US Census Bureau, Census Transportation Planning Product. Based on American Community Survey 2006-2010 five-year estimates.
[3] US Census Bureau, Census Transportation Planning Product. Based on American Community Survey 2009-2013 five-year estimates.
[4] US Census Bureau, 2009-2013 American Community Survey 5-Year Estimates.

Age and income. Demographic characteristics such as age and income play a key role in determining mode of transportation. Linn County residents with lower incomes, as well as the youngest and oldest residents, often account for more trips via walking, biking, and public transportation. As seen in Table 2, school-age children and residents over 65 make up about 41 percent of the population in the county. Harrisburg has the highest median household income of any of the cities within Linn County (around $50,000), which is about 7% higher than the county generally at about $47,000.

Table 2: Key Demographics in Linn County

	Albany	Lebanon	Sweet Home	Harrisburg	Linn County
Age (By Percent of Residents)					
Under 18	19%	18%	16%	20%	18%
18 to 64	62%	58%	59%	61%	59%
Over 65	19%	24%	25%	9%	23%
Median Household Income	$47,612	$44,320	$34,443	$50,410	$46,939

Source: US Census Bureau, 2008-2012 American Community Survey

Is it cold or raining? Weather plays a role in determining how trips are made. Linn County experiences cool, rainy winters, with mild and generally dry summers. Average temperatures in the winter months (November to March) are around 40-45 degrees Fahrenheit, with measurable rainfall occurring about 20 days each winter month. The spring and fall months (April, May, June and October) are slightly warmer and dryer, with average temperatures around 50-55 degrees Fahrenheit, and about 10-15 days of measurable rainfall. The summer months (July to September) are typically very pleasant, with average temperatures around 60-65 degrees Fahrenheit, with less than 10 days of measurable rainfall each month.[5] Cold, rainy weather generally discourages walking and biking trips, often forcing users to make a trip via motor vehicle when they would otherwise walk or bike.

Are you able to walk or bike on a steep hill? Sloping and hilly topography can be a deterrent to walking and bicycling. While there are some significantly sloping streets (e.g., in the forests in the eastern half of the county), this is typically not an issue for walking and biking Linn County as the majority of county roadways connecting population centers are relatively flat.

[5] Climate Summary for Linn County, Oregon, National Weather Service.

How is the Transportation System Managed?

A variety of measures and methods are used to assess the condition and performance of Linn County's transportation system. These measures and methods help to ensure acceptable quality of the transportation system for its residents, and visitors. These measures and methods include:

Transportation Infrastructure Inventory: The TSP reviews existing transportation facilities, with a focus on gaps and deficiencies in the pedestrian, bicycle, transit, and roadway systems.

Roadway Jurisdiction: In Linn County, roadways are under the jurisdiction of the Oregon Department of Transportation (ODOT), Linn County, the various incorporated cities within the county, the U.S. Forest Service, and the U.S. Bureau of Land Management. Each responsible jurisdiction sets standards for its roadways based on intended use (known as functional classification). This memorandum evaluates only State highways and county roads outside of Urban Growth Boundaries (UGBs). Inside UGBs, roadway needs are addressed in each city's own transportation system plan.

Functional Classification and Designations: To manage the roadway network, the county classifies the roadways based on the intended purpose of each road, as shown in Figure 3. From highest to lowest intended usage, the classifications are major and minor arterials, major and minor collectors, and local roads. Roadways intended for high usage generally provide more efficient traffic movement through the county; roadways that primarily provide access to local destinations, such as businesses or residences, have lower usage.

- **Arterials** act as a corridor connecting many parts of the county and serve traffic traveling to and from state highways. These roadways provide greater accessibility, often connecting to major activity generators and provide efficient through movement for local traffic. Access management limits the number of direct connections to Arterials. In Linn County, the state highways typically provide the function of major arterials. The county roadways classified as minor arterials include Stayton-Scio Road and Diamond Hill Road between Harrisburg and I-5.
- **Collectors** often connect the communities to arterial roadways. These roadways serve as major community routes and generally provide more direct property access or driveways than arterial roadways.
- **Local Roadways** provide the most direct access to residences without serving through travel in Linn County. These roadways are often lined with residences and are designed to serve lower volumes of traffic with a statutory speed limit of 25 miles per hour.

ODOT classifies roadways in Linn County under its jurisdiction as well, which includes Interstates, Other Principal Arterials, Minor Arterials, and Local roads (see Figure 3).

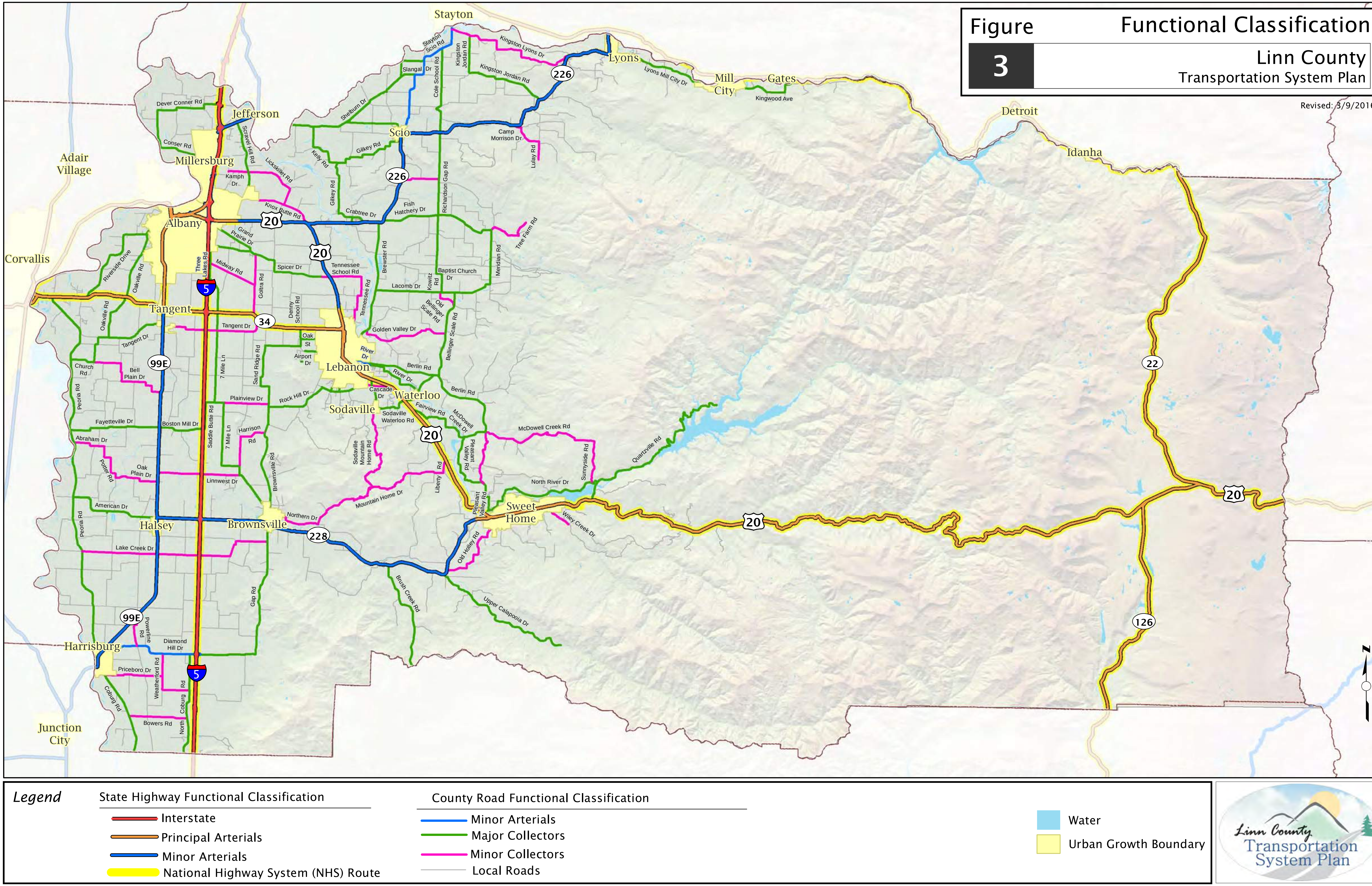
Figure
3
Functional Classification
Linn County
Transportation System Plan
Revised: 3/9/2016
Stayton
Lyons
Mill City
Gates
Detroit
Idanha
Jefferson
Millersburg
Adair Village
Albany
Corvallis
Scio
Tangent
Lebanon
Waterloo
Sodaville
Sweet Home
Halsey
Brownsville
Harrisburg
Junction City
Legend
State Highway Functional Classification
Interstate
Principal Arterials
Minor Arterials
National Highway System (NHS) Route
County Road Functional Classification
Minor Arterials
Major Collectors
Minor Collectors
Local Roads
Water
Urban Growth Boundary
Linn County Transportation System Plan

Motor Vehicle Mobility Targets: County roadways and intersections have targets intended to maintain a minimum level of efficiency for motor vehicle travel. These targets are described in terms of volume-to-capacity (v/c) ratios and Level of Service (LOS) ratings.

- **Volume-to-capacity (v/c) ratio:** This measure compares the facility capacity to how heavily it is used. The result is a decimal value between 0.00 and 1.00. A lower ratio indicates smooth operations and minimal delays. As the ratio approaches 1.00, congestion increases and performance is reduced. At 1.00, capacity has been reached—this results in long queues and delays.
- **Level of service (LOS):** A “report card” rating (A through F) based on the average delay (seconds per vehicle) experienced by vehicles at the intersection. LOS A, B, and C indicate conditions where traffic moves without significant delays over periods of peak hour travel demand. LOS D and E are progressively worse operating conditions. LOS F represents conditions where average vehicle delay has become excessive and demand is near or over capacity; this condition is typically evident in long queues.

Intersection mobility targets vary by jurisdiction of the roadways. All intersections under state jurisdiction in Linn County must comply with the v/c ratios in the Oregon Highway Plan (OHP). The ODOT v/c targets are based on highway classification and posted speed. Linn County’s adopted standard for roadways under county jurisdiction is LOS D. Table 3 describes the state highway (ODOT) motor vehicle mobility targets applicable to the study area.

Table 3: State Highway Motor Vehicle Intersection Mobility Targets (Outside UGBs)

				Unsignalized Intersections	
Highway	Highway Category	Special Designation	Highway Signalized Intersections	Highway Approaches	Side Street Approaches to Highway
I-5	Interstate	Freight Route	0.70 v/c	0.70 v/c	0.75 v/c
US 20	Regional	Freight Route	0.70 v/c	0.70 v/c	0.75 v/c
US 20	Regional	Non-Freight Route	0.70 v/c	0.70 v/c	0.75 v/c
OR 34	District	Freight Route	0.70 v/c	0.70 v/c	0.75 v/c
US 20	Statewide	Freight Route	0.70 v/c	0.70 v/c	0.75 v/c
OR 99E	Regional	Freight Route	0.70 v/c	0.70 v/c	0.75 v/c
OR 99E	Regional	Non-Freight Route	0.70 v/c	0.70 v/c	0.75 v/c
OR 22	Statewide	Freight Route	0.70 v/c	0.70 v/c	0.75 v/c
OR 164	District	Non-Freight Route	0.75 v/c	0.75 v/c	0.75 v/c
OR 226	District	Non-Freight Route	0.75 v/c	0.75 v/c	0.75 v/c

Highway	Highway Category	Special Designation	Highway Signalized Intersections	Unsignalized Intersections: Highway Approaches	Unsignalized Intersections: Side Street Approaches to Highway
OR 228	District	Non-Freight Route	0.75 v/c	0.75 v/c	0.75 v/c
US 20/ OR 126	Statewide	Non-Freight Route	0.70 v/c	0.70 v/c	0.75 v/c

Source: 1999 Oregon Highway Plan, Policy 1F Revisions, Table 6 (as amended 2011)

Access Spacing: Proper access spacing balances efficient, safe, and timely travel with access to individual destinations. Proper spacing between accesses (driveways and streets) can reduce congestion, collision rates, and the need for additional roadway capacity.

ODOT access spacing standards for driveways and approaches to state highways are based on annual average daily traffic (AADT) and state highway classification and vary with posted speed (see Table 4). Generally, the faster the speed limit, the greater the minimum required distance between accesses. Access spacing has been identified as a concern along OR 34 and US 20. Along these roadways, access spacing will be evaluated against established standards.

Table 4: State Highway Access Spacing Standards (Rural Areas)

Highway	ODOT Highway Number	Highway Category	AADT	Posted Speed	Minimum Spacing (ft.)
I-5	1	Interstate	>5,000	Any	2 miles
US 20	16	Regional	>5,000	40-45 mph	750 ft
US 20	16	Regional	>5,000	>=55 mph	990 ft
US 20	16	Regional	<=5,000	40-45 mph	360 ft
US 20	16	Regional	<=5,000	>=55 mph	650 ft
US 20/OR 126	16	Statewide	<=5,000	55 mph	1,320 ft
US 20/OR 126	16	Statewide	>5,000	55 mph	1,320 ft
OR 34	210	Regional	>5,000	>=55 mph	990 ft
OR 34	210	District	>5,000	40-45 mph	500 ft
OR 34	210	Statewide	>5,000	40-45 mph	990 ft
OR 34	210	Statewide	>5,000	50 mph	1,100 ft
OR 34	210	Statewide	>5,000	>=55 mph	1,320 ft
US 20/OR 34	33	District	>=5,000	>=55	700 ft
OR 99E	058	Regional	<=5,000	40-45 mph	360 ft

Highway	ODOT Highway Number	Highway Category	AADT	Posted Speed	Minimum Spacing (ft.)
OR 99E	058	Regional	<=5,000	>=55 mph	650 ft
OR 22	162	Statewide	Any	>=55 mph	1,320 ft
OR 164	164	District	>5,000	>=55 mph	700 ft
OR 226	211	District	<=5,000	40-45 mph	360 ft
OR 226	211	District	<=5,000	>=55 mph	650 ft
OR 228	212	District	<=5,000	40-45 mph	360 ft
OR 228	212	District	<=5,000	>=55 mph	650 ft
OR 126	215	Statewide	<=5,000	>=55 mph	1,320 ft

Source: Oregon Administrative Rules 734-051-4020, Tables 3-10
Note: On one-way highways or highways with a non-traversable median, standards are ½ the values listed above.

Linn County has ideal access spacing standards for driveways or public roadways under their jurisdiction, by functional classification, as follows:

- Major or minor arterials – "Category 4 access" offers limited access: public road access at no less than every one mile; driveways spaced at no less than every 1,200 feet; no traffic signals; and no median control.
- Major or minor collectors – "Category 5 access" offers partial access: public road access spaced at no more than every ½ mile; driveways spaced at no less than every 500 feet; traffic signals spaced at no less than every ½ mile; and no median control.

If either safety or environmental factors or the lack of adequate distance between accesses requires placement of access or traffic control at lesser intervals, then the best alternative placement is chosen. As part of the TSP Update process, access spacing standards will be considered for county facilities.

Collision Evaluation: Collision data is useful in monitoring the safety of the roadways and intersections in the county. Study intersection evaluation and network screening techniques help to identify locations with potential safety problems. High crash rates, fatal or severe injuries, and crashes involving pedestrians and bicyclists are all indicators of dangerous roadways. Analysis of the collision data can identify patterns in the collisions and suggest possible countermeasures and safety improvements.

Seismic Lifeline Routes: Oregon Highway Plan (OHP) Goal 1, Policy 1E designates routes for emergency response and evacuation in the event of an earthquake (or other natural disaster) and are categorized by the following priorities[6]:

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[6] Seismic Lifeline Maps, revised August 2005.
http://www.oregon.gov/ODOT/TD/TDATA/Pages/gis/odotmaps.aspx#Seismic_Lifeline_Maps

- **Priority 1 Lifeline Routes** are considered essential for emergency response within the first 72 hours after an incident. Within Linn County this includes: US 20 (west of Third Ave. in Sweet Home), OR 99E (excluding a small portion in Albany between Geary St. and the Interstate 5 interchange), OR 228 (excluding a portion from east of Brownsville to east of Crawfordsville), Stayton-Scio Rd / OR 226 / Brewster Rd. (connecting Stayton and Lebanon), OR 226 / Main St. / Lyons-Mill City Dr. (within Lyons, Mill City, and connecting both), Columbus / Seven Mile Ln. / Plainview Dr. (connecting Albany's southern boundary to OR 228).
- **Priority 2 Lifeline Routes** are considered desirable for emergency response within the first 72 hours after an incidence or routes essential for economic recovery. Within Linn County this includes: Interstate 5.
- **Priority 3 Lifeline Routes** are routes that serve relatively few people but are still important because they are the only access options. There are no Priority 3 Lifeline Routes in Linn County.

Priority Lifelines routes in Linn County are shown in the appendix. ODOT Bridge Section has also developed a list of seismic lifeline routes to help prioritize systemic bridge upgrades.[7] Within Linn County, Tier 1 includes all of Interstate 5. Tier 2 includes OR 22 and US 20 (east of OR 22). Tier 3 includes OR 34 (west of Interstate 5).

What is the Condition of the Existing Transportation System?

The measures described in the previous section were used to assess the existing transportation system. Findings are summarized in this section.

Pedestrian System

Walking plays an important role for the county's transportation network. Planning for pedestrians not only helps to provide a complete, multi-modal transportation system, it supports healthy lifestyles and ensures that the young, the elderly, and those not financially able to afford motorized transport have access to goods, services, employment, and education. Pedestrian access is critical to transit, recreation, and day-to-day necessities. Cities typically have the most pedestrian activity, however outside of the city limits it is still important that collector and arterial roadways provide ample space for pedestrian travel (e.g., a shoulder area) to separate those walking from motor vehicles along these higher volume and speed facilities.

Existing Pedestrian Infrastructure

Pedestrian facilities are typically provided along County and State roadways in the form of sidewalks, shared use paths, and roadway shoulders.

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[7] Oregon Highways Seismic PLUS Report: October, 2014, ODOT.

Sidewalks are located along roadways, are often separated from the roadway with a curb and/or planting strip, and have a hard, smooth surface, such as concrete. The Oregon Department of Transportation (ODOT) standard for sidewalk width is six feet for arterial and collector roadways. Sidewalks are typically appropriate within city limits and in built-up areas of rural communities. There are very few (if any) actual sidewalks in rural Linn County.

Shared use paths serve a variety of non-motorized travelers, including pedestrians, bicyclists, skateboarders, and runners. Shared use paths are typically paved (asphalt or concrete), but may also consist of an unpaved smooth surface as long as it meets Americans with Disabilities Act (ADA) standards. Shared use paths are usually wider (e.g., 10 – 14 feet) than an average six-foot sidewalk. There is a shared use path on the north side of OR 34 between Corvallis and Peoria Road.

Roadway shoulders serve as pedestrian routes in and between rural communities. On roadways outside of city limits, shoulders may be adequate for pedestrian travel. These shoulders must be wide enough so that both pedestrians and bicyclists can use them, optimally six feet or wider, without steep slopes. The *ODOT Highway Design Manual*[8] 3-R (resurfacing, restoration and rehabilitation) standard shoulder widths for rural highways are shown in Table 5 (for resurfacing projects). For new or reconstruction projects, there are more restrictive 4-R (reconstruction, resurfacing, restoration and rehabilitation) standards.[9] Roadway shoulder widths are summarized relative to standard (as shown in Table 5) and desirable widths[10] (as shown in Table 6) for county roadways and state highways are summarized in Figure 4.

Table 5: ODOT Highway Design Manual Rural Design Standards: Minimum Lane and Shoulder Widths (3-R Standards)

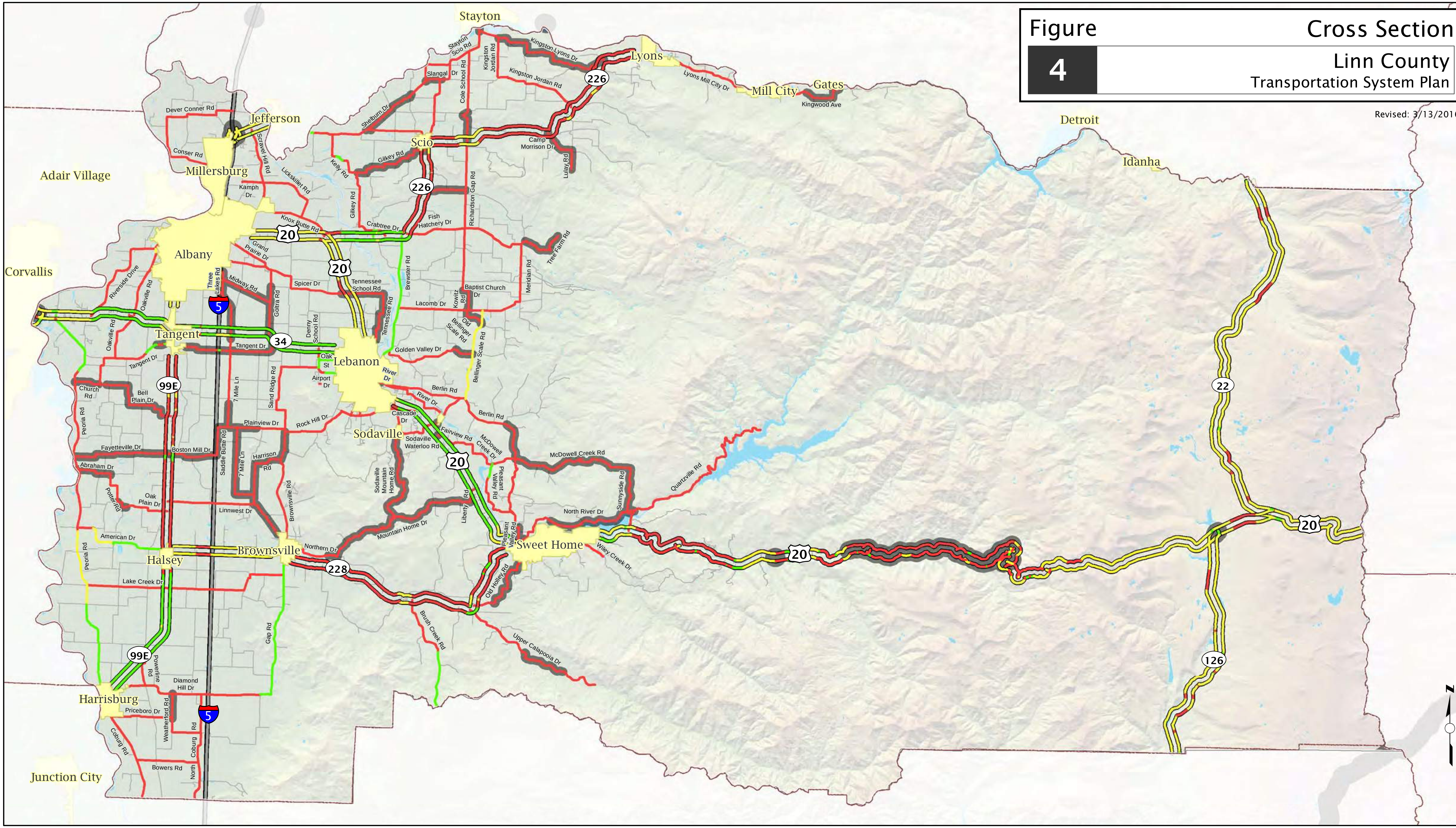
Average Daily Traffic		Lane Width	Shoulder Width
<750 Vehicles		10’	2’
750 – 2000 Vehicles	Under 50 mph	11’	2’
	50 mph or Over	11’	3’
Over 2000 Vehicles		11’	4’

[8] ODOT Highway Design Manual, Table 7-3.
[9] ODOT Highway Design Manual, Table 7-2.
[10] Bicycle and Pedestrian Design Guide, Oregon Department of Transportation, 2011, Table 1-2: Rural road shoulder widths.

Figure 4 Cross Section

Linn County Transportation System Plan

Revised: 3/13/2016



Legend

Shoulder Width

County Roadways	ODOT Highways
Does Not Meet Minimum	Does Not Meet Minimum
Meets Minimum	Meets Minimum
Meets Desired	Meets Desired

Lane Width Less Than 11 Feet

County Local Roads (Not Analyzed)

Water

Urban Growth Boundary

Linn County Transportation System Plan

Table 6: ODOT Bicycle and Pedestrian Design Guide: Rural Road Shoulder Widths

Average Daily Traffic	< 400	400 – 1,500	1,500 – 2,000	> 2,000
Rural Arterials	4'	6'	6'	8'
Rural Collectors	2'	5'	6'	8'
Rural Local Roads	2'	5'	6'	8'

Deficiencies in the Pedestrian System

The presence of adequate pedestrian facilities along major roadways (arterial and collectors) in Linn County is limited. Deficient pedestrian systems may discourage walking in developed communities, and are a safety concern in rural areas.

Inadequate shoulders along rural sections of state and county facilities: Outside of city limits, roadway shoulders are typically adequate as a pedestrian facility. However, many of the state and county roadway shoulders in Linn County are too narrow to be safe for pedestrian travel. This is an especially dangerous situation on high-speed, high-volume, or limited visibility roadways. As shown in Figure 4, the vast majority of county roadways do not meet minimum shoulder standards. Gap Road is an exception, actually meeting the desired shoulder width.

State highways vary in the shoulder widths provided, but typically, the higher classified roadways (OR 34, US 20, OR 22, OR 126) all have at least the minimum desired shoulder width. US 20, between Sweet Home and OR 22, is an exception, likely due to the challenges associated with widening in mountainous terrain. There are also relatively fewer pedestrians due to limited land uses in the area. The lower classified state highways (OR 226, OR 228, OR 99E, US 20 near Albany) tend to have substantial shoulder width deficiencies, with the exception of OR 99E between Halsey and Harrisburg.

Bicycle System

The bicycle system provides a non-motorized travel option for trips that are longer than a comfortable walking distance. A well-developed bicycle system promotes a healthy and active lifestyle for its residents, and visitors. Recreational bicyclists can be found touring regional highways in Linn County, especially along scenic and historical routes. ODOT provides planning and design guidance for bicycle facilities in the *Bicycle and Pedestrian Design Guide.*[11]

The Oregon Scenic Bikeways document[12] identifies a number of scenic bike routes throughout Oregon. A portion of the Willamette Valley Scenic Bikeway travels through Linn County, partially along the Willamette River, traveling through Brownsville and Albany. In addition, the Linn County

[11] ODOT Bicycle and Pedestrian Design Guide, 2011.
[12] RideOregonRide.com/Willamette.

Parks and Recreation Master Plan[13] identifies two trails that the County is collaborating with regional partners to develop, the Lebanon to Albany Regional Trail and the Foster Reservoir Trail.

Existing Bicycle Infrastructure

Linn County's bicycling network consists of bike lanes, shared use paths, roadway shoulders, and shared roadways. Current policy considers all roads in the county to be a general bikeway network, and identifies all county bikeways in the unincorporated areas as currently either shared roadways or shoulder bikeways.[14] Major designated routes should optimally provide wayfinding signage for bicyclists.

Bike lanes are portions of the roadway designated specifically for bicycle travel via a striped lane and pavement stencils. ODOT standard width of a bicycle lane is six feet. The minimum width of a bicycle lane against a curb or adjacent to a parking lane is five feet. A bicycle lane may be as narrow as four feet, but only in very constrained situations. Bike lanes are most appropriate in developed communities where separation of motor vehicle, bicycle, and pedestrian modes is essential, but are also desired in rural areas where higher travel speeds may warrant separated facilities. The county does not have an inventory of dedicated bike lanes, however, there are very few, if any designated bike lanes in Linn County outside of Urban Growth Boundaries.[15]

Shared use paths serve a variety of non-motorized travelers, including pedestrians, bicyclists, skateboarders, and runners. Shared use paths are typically paved (asphalt or concrete), but may also consist of an unpaved smooth surface as long as it meets Americans with Disabilities Act (ADA) standards. Shared use paths are usually wider (e.g., 10 – 14 feet) than an average six-foot sidewalk. No shared use paths are maintained by the county outside Urban Growth Boundaries. There is a shared use path on the north side of OR 34 between Corvallis and Peoria Road.

Shoulder bikeways are paved roadways that have striped shoulders wide enough for bicycle travel. Shoulder bikeways are often adequate for bicycle travel along rural state and county facilities. Shoulder bikeways can be signed to alert motorists to expect bicycle travel along the roadway, especially at conflict zones where the shoulder may become temporarily inadequate for bicycle travel. The *ODOT Bicycle and Pedestrian Design Manual*[16] recommends shoulder widths to adequately provide for bicyclists on rural highways as shown in above in Table 6.

Shared roadways are the most common bikeway type, and are usually not specifically designed for bicyclist travel. On shared roadways, bicycles ride in the lane with motor vehicle traffic. Shared roadways are appropriate for low-volume and low-speed rural roads with good sight distance.

Deficiencies in the Bicycle System

Linn County's bicycle system has several deficiencies that may discourage potential users. In the rural area, bicycle system deficiencies are primarily related to inadequate shoulders.

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[13] Linn County park and recreation Master Plan, January 2009.
[14] Linn County Transportation Plan Code, 907.840(F)
[15] Per Chuck Knoll, Linn County Engineer, email dated February 19, 2016.
[16] Bicycle and Pedestrian Design guide, Oregon Department of Transportation, 2011.

Inadequate shoulders along rural sections of state and county facilities: Outside urban growth boundaries, roadway shoulders provide separated travel for bicyclists from the motor vehicle travel way. Many of the state and county rural roadways, however, do not provide standard shoulder widths for bicycle travel. Bicycle deficiencies are consistent with the pedestrian deficiencies noted above since both are directly related to the availability of paved shoulders, and their width.

Inappropriate shared roadways along rural sections of state and county facilities: Many roads in Linn County's general bikeway network are shared roadways, where no shoulder is provided and bicycles share the lane with motor vehicles. These facilities are recommended for low-volume and low-speed roadways.

Transit System

The transit system in Linn County consists of a mix of fixed route and demand responsive systems. Most of the services are provided within city limits only, and there is no fixed-route transit service provided outside the UGB's. However, services are provided in the rural areas of Linn County, outside Urban Growth Boundaries. The *Linn County Transit Plan* provides more information on the service providers in the county, along with a demographic analysis of service provided.[17] Transit providers that operate in Linn County are described below.

Rural Area (Outside Urban Growth Boundaries):

The following services are provided in the rural areas of Linn County. Residents may use these services to connect to the urban services described in the following sections.

Medical Transportation Services

Cascades West Ride Line[18]

Cascades West Ride Line coordinates non-emergency medical related transportation for eligible Oregon Health Plan and Medicaid clients. It provides free transportation for eligible clients in Benton, Lincoln and Linn Counties who have no other transportation for medical services. Transportation arranged through local providers and must be scheduled one business day in advance.

Carpool / Vanpool Programs

Cascades West Rideshare[19]

Cascades West Rideshare provides carpool and vanpool matching services for commuters living and working in Benton, Lincoln and Linn Counties, with connections to major cities including Salem and Eugene.

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[17] Linn County Coordinated Public Transit-Human Services Transportation Plan. Linn County Transportation Advisory Committee. May 2007.
[18] Ibid
[19] Ibid

Urban Area (Within Urban Growth Boundaries):

The following services are provided only in the urban areas of Linn County. Residents from the rural areas may use these services if they are able to get to the urban areas, potentially using the rural services described previously. The hours of operation and approximate headways of these services are summarized in Table 7 below.

Fixed Route Programs:

Albany Transit[20] - Albany Transit System (ATS) offers a variety of routes throughout the City of Albany. All ATS Routes provide connections to Amtrak and the Valley Retriever at Albany Station. All ATS buses provide wheelchair lift service[21]

Linn Shuttle[22] - Based at the Sweet Home Senior & Community Center, the Linn Shuttle offers four fixed route services between Sweet Home, Lebanon, and Albany. Dial-A-Bus service is also available. All routes provide a connection to the Linn-Benton Loop and ATS routes at Albany Station and at Linn-Benton Community College. Linn Shuttle buses are wheelchair accessible.

Linn-Benton Loop[23] - The Linn-Benton Loop provides services between Albany, Linn-Benton Community College, downtown Corvallis, Oregon State University, and Hewlett Packard.

Valley Retriever Bus[24] - Valley Retriever Bus is a fixed route service connecting Corvallis and Albany (Albany Amtrak Station). It operates one morning and one afternoon east bound service every day, and one morning and one afternoon west bound service every day.

Hut Airport Shuttle[25] - The HUT Airport shuttle is a fixed route service connecting Corvallis, Albany and Portland International Airport.

Table 7: Linn County Fixed-Route Transit Services Operating Summary

Service	Connections	Days of Operations	Hours of Operation	Approximate Headways	Wheel Chair Accessible
Linn Shuttle	Sweet Home – Lebanon – Albany	Monday to Friday	7:00am to 6:30pm	1 – 2 hours	Yes
Albany Transit	Albany	Monday to Friday	6:30am to 5:20pm	1 hour	Yes
Linn-Benton Loop	Albany – Corvallis	Monday to Friday	6:25am to 7:00pm	1-1.5 hours	Yes

[20] http://www.cityofalbany.net/departments/public-works/transportation/albany-transit-system
[21] Albany Transit Plan (2011)
[22] www.linnshuttle.com
[23] http://www.cityofalbany.net/departments/public-works/transportation/linn-benton-loop
[24] Linn County Transit Plan (2007)
[25] Linn County Transit Plan (2007)

Service	Connections	Days of Operations	Hours of Operation	Approximate Headways	Wheel Chair Accessible
Valley Retriever Bus	Albany – Corvallis	Monday to Friday	4 trips a day	N/A	No
Hut Airport Shuttle	Albany – PDX Corvallis – PDX	Monday to Sunday	2:30am to 10:30pm	2 hours	No

Demand Response Programs:

In addition to fixed route transit systems, there are a number of demand response programs, typically provided for seniors or citizens with disabilities who are unable to use conventional transit services. The major programs are available, but are typically for residents of the incorporated areas of the county:

- Albany Call-a-Ride[26]
- Lebanon Dial-A-Bus[27]
- Sweet Home Dial-A-Bus[28]

Volunteer Programs:

There are a number of volunteer programs available as well. These programs typically serve seniors and persons with disabilities, but may have more specific requirements (e.g. veterans). Some of the programs available in Linn County include the following:

- Albany Interfaith Volunteer Caregivers[29]
- Senior Companion Program [30]
- Veterans Administration Van[31]

Deficiencies in the Transit System

There are several deficiencies in Linn County's transit system that may limit transit use.

Transit Coverage: The existing transit routes primarily serve citizens in urban areas. Fixed route service is limited in the rural portions of the county due to the vast roadway network.

Transit Access: Transit access should be a comfortable experience for passengers and those considering riding transit. Transit stops should be connected to adequate pedestrian facilities including safe road crossing opportunities. Unimproved transit stops can create uncomfortable conditions for transit passengers seeking to access their bus stop or final destination. It is also a deterrent for some potential transit users, including elderly users and persons with disabilities.

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26 Albany Transit Plan (2011)
27 Ibid
28 Ibid
29 Ibid
30 Ibid
31 Ibid

Transit Operations: The hours of operation should be convenient to encourage transit ridership, and transfers between lines should be coordinated. However, service in the rural portion of the county is generally unavailable, particularly fixed-route service, due to the low population densities and vast rural roadway network.

Transit Amenities: Attractive stops with clear signage, user information and amenities help promote transit as an easy, comfortable way to get around. Transit stops with distinctive signage and amenities are lacking in Linn County's transit system. While stops would ideally provide shelter, seating, signage, route information, and trash receptacles, most only provide a sign designating the stop location. Bus stops can at times be difficult to find, which may discourage ridership. It is also important to provide route information at stops to help riders navigate the system.

Motor Vehicle System

Access Spacing

An access inventory was conducted on two major state highways in Linn County, OR 34 and US 20, comparing the number of existing driveways to the applicable ODOT access spacing standards (previously shown in Table 4) based on either the number of approaches compared with the average number of acceptable approaches or the average access spacing compared with ODOT' standard.

The purpose of this inventory is to document deficient locations, so when a property develops or redevelops, alternative access options will be explored. It is important to note that this process will not recommend closure of existing access locations in deficient areas. Table 8 and Figure 5 document the segments of highways that fail to meet ODOT access spacing standards. Segments were defined based on roadway characteristics (e.g. functional classification, posted speeds) and available traffic volume data.

As shown, almost none of the segments of US 20 between Albany and Lebanon meet the spacing standards on either side of the highway, with the exception of the north side between OR 226 and Bohlken Drive/Honey Sign Drive. Between Lebanon and Sweet Home, most segments meet spacing standards on the north side of the highway (or come close), likely because there is a rail line immediately north of the highway, providing limited crossing opportunities. However, none of the segments on the south side meet the standard. All segments between Sweet Home and the east county line meet the spacing standards, primarily due to the low density, rural development.

On OR 34, no segments meet ODOT's access spacing standard west of I-5. From I-5, east to 7 Mile Lane, access standards are not met, but between 7 Mile Lane and Lebanon, most segments either meet the standard, or come close. On the south side, between Tangent Drive and Red Bridge Road, the standard is not met.

Table 8: Summary of Access Density on US 20 and OR 34

Roadway Segment (From/To)	ODOT Access Spacing Std. (ft.)	Segment Length (miles)	Average Approach Spacing		Allowed Number of Accesses (Avg.)	Number of Approaches	
US 20			**Northside**	**Southside**		**Northside**	**Southside**
Albany UGB to Harber Rd	990	2.39	**784**	**523**	12	**16**	**24**
Harber Rd to OR 226	990	1.54	**424**	**795**	6	**15**	**8**
OR 226 to Bohlken Drive/Honey Sign Drive	990	1.98	**517**	1150	10	**20**	9
Bohlken Drive/Honey Sign Drive to Tennessee School Rd	990	1.29	**394**	**745**	6	**17**	**9**
Tennessee School Rd to 0.2 miles north of Meredith Drive	990	1.39	**473**	**646**	7	**15**	**11**
0.2 miles north of Meredith Drive to James Place	750	0.97	**353**	**235**	6	**14**	**21**
James Place to Lebanon UGB	750	0.37	**106**	**211**	1	**2**	1
Lebanon UGB to Waterloo Rd	990	2..21	1,406	**262**	11	8	**43**
Waterloo Rd to Fairview Rd	990	0.71	1,901	**292**	3	2	**13**
Fairview Rd to Harmony Rd	990	5.08	**920**	**417**	26	**29**	**64**
Harmony Road to 0.05 miles west of Sweet Home UGB	990	2.1	2,191	**974**	8	4	**9**
0.05 west of Sweet Home UGB to Sweet Home UGB	600	0.05	N/A	**264**	0	0	**1**
Sweet Home UGB to Quartzville Rd	650	1.68	2,957	2,957	9	2	2
Quartzville Rd to Menears Bend	650	1.88	3,291	2,468	15	3	4

Roadway Segment (From/To)	ODOT Access Spacing Std. (ft.)	Segment Length (miles)	Average Approach Spacing		Allowed Number of Accesses (Avg.)	Number of Approaches	
Menears Bend to Cascadia Dr	650	4.98	1,367	764	39	19	34
Cascadia Dr to NF - 2032	650	6.26	1,207	1,123	50	27	29
NF -2032 to NF - 245	650	14.84	6,901	6,274	106	10	11
NF -245 to Clear Lake Belknap Springs Hwy	650	10.58	10,428	5,214	64	4	8
Clear Lane Belknap Spring Hwy to Santiam Junction	1,320	3.38	N/A	N/A	13	0	0
Santiam Junction to Linn County Line	1,320	5.87	1,412	2,825	4	4	2
OR 34			**Southside**	**Northside**		**Southside**	**Northside**
County Line to OR 34 Intersection	5,280	0.20	**528**	N/A	0	**1**	0
OR 34 Intersection to Construction Access Rd	5,280	0.11	**422**	**422**	0	**1**	**1**
Construction Access Rd to Graves Ln	5,280	0.44	**433**	**541**	0	**5**	**4**
Graves Ln to Peoria Rd	5,280	0.30	**229**	N/A	0	**3**	0
Peoria Rd to Al & Merles Rock and Gem Shop	5,280	0.10	**53**	**158**	0	**1**	**2**
Al & Merles Rock and Gem Shop to Melody Ln	5,280	0.87	**264**	**561**	0	**17**	**8**
Melody Ln to Oakville Rd	5,280	3.20	**538**	**575**	3	**31**	**29**
Oakville Rd to OR 34 Ramps	5,280	1.67	**903**	**1,162**	1	**9**	**7**
OR 34 Ramps to Tangent UGB	5,280	0.47	**1,188**	**2,376**	0	**2**	**1**
Tangent UGB to 0.16 miles west of Columbus St	5,280	1.35	**1,294**	**2,587**	0	**4**	**2**
0.16 miles west of Columbus St to Columbus St	5,280	0.16	**317**	**158**	0	**1**	**2**
Columbus St to 0.20 miles east of Tangent Loop	5,280	0.45	**581**	**1,162**	0	**2**	**1**

Roadway Segment (From/To)	ODOT Access Spacing Std. (ft.)	Segment Length (miles)	Average Approach Spacing		Allowed Number of Accesses (Avg.)	Number of Approaches	
0.20 miles east of Tangent Loop to I-5 Overpass	5,280	0.43	**449**	**299**	0	**4**	**6**
I-5 Overpass to I-5 North Ramps	5,280	0.10	N/A	**264**	0	0	**1**
I-5 North Ramps to Pine Cone Café & Grill Truck Parking	750	0.38	**387**	**581**	1	**3**	**2**
Pine Gone Café & Grill Truck Parking to 7 Mile Lane	990	0.25	N/A	**158**	0	0	**1**
7 Mile Lane to Tangent Dr	990	2.50	1,856	1,443	13	7	9
Tangent Dr to Red Bridge Rd	990	0.74	**520**	1,214	3	**7**	3
Red Bridge Rd to Denny School Rd	990	1.66	1,170	2,341	7	6	3
Denny School Rd to Lebanon UGB	990	0.84	**855**	1,426	4	**5**	3
Linn County Line to OR 34 Intersection	5,280	0.64	N/A	3,374	0	0	1

bold Indicates segments that do not meet ODOT's spacing standard

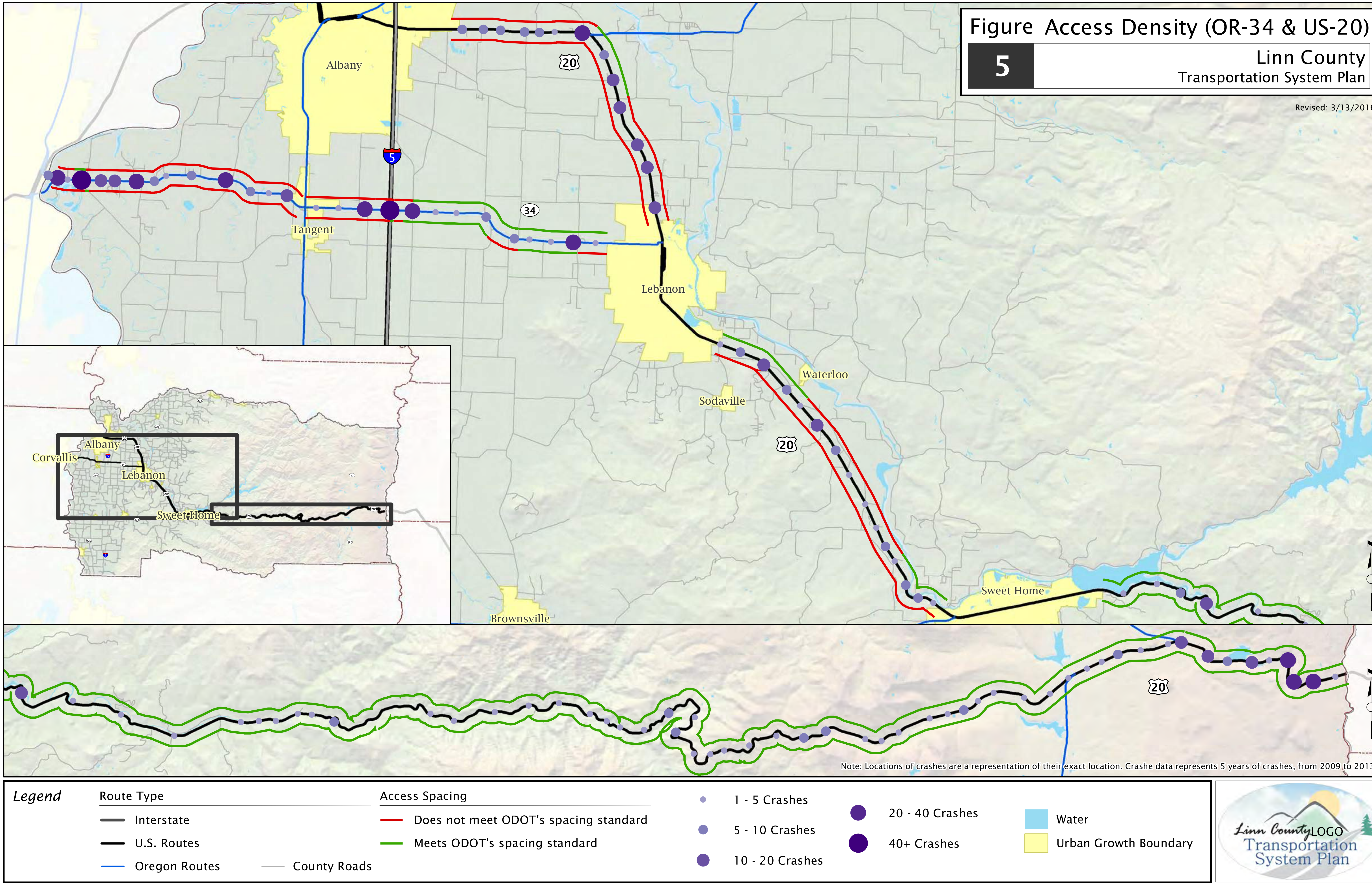
Figure 5 Access Density (OR-34 & US-20)
Linn County
Transportation System Plan
Revised: 3/13/2016
Albany
Tangent
Lebanon
Waterloo
Sodaville
Sweet Home
Brownsville
Corvallis
20
34
5
Note: Locations of crashes are a representation of their exact location. Crashe data represents 5 years of crashes, from 2009 to 2013.
Legend
Route Type
Interstate
U.S. Routes
Oregon Routes
County Roads
Access Spacing
Does not meet ODOT's spacing standard
Meets ODOT's spacing standard
1 - 5 Crashes
5 - 10 Crashes
10 - 20 Crashes
20 - 40 Crashes
40+ Crashes
Water
Urban Growth Boundary
Linn County LOGO
Transportation System Plan

Motor Vehicle Operations

Motor vehicle conditions in Linn County vary based on the time of year. During the summer peak (typically in July or August), traffic volumes are somewhat higher than during the average weekday and, therefore, intersection operations are worse. For this reason, the motor vehicle conditions at the 35 study intersections were evaluated during both summer and average weekday conditions. The evaluation utilized 2000 Highway Capacity Manual methodology[32] for signalized intersections and 2010 Highway Capacity Manual methodology[33] for unsignalized intersections and is summarized in Table 9 and Figure 6 (Summer p.m. peak conditions).

Intersection Operations

Summer p.m. peak hour intersection operations are all within the Oregon Highway Plan and Linn County mobility targets except for the intersections of OR 34/Denney School Road, Denney School Road/Oak Drive, and OR 34/7 Mile Lane. Each of these intersections is unsignalized, with stop control on the minor street approach. An intersection improvement (traffic signal installation) has been identified at the OR 34/7 Mile Lane intersection, which is planned for construction in 2016. With a traffic signal in place, the intersection is expected to operate acceptably (v/c 0.53). The OR 34/Denney School Road intersection is on an ODOT facility where mainline delays are minimal, but side street delays could be significant. The Denney School Road/Oak Street intersection operates poorly (LOS F) for minor street traffic, however, side street volumes are relatively low, so few vehicles experience long delays.

Average weekday p.m. peak hour intersection operations are better than the summer operations at all intersections reviewed. During the average weekday condition, the same intersections fail to meet the Oregon Highway Plan and Linn County mobility targets, however, their performance is significantly improved. The two ODOT intersections, OR 34/7 Mile Lane and OR 34/Denney School Road have v/c ratios well below 1.0 and the Denney School Road/Oak Street intersection is expected to operate at LOS E on the minor street approach. While delays could be long, very few vehicles experience that condition.

A traffic signal is planned at the OR 34/7 Mile Lane intersection. Peak hour signal warrants were checked at the two remaining intersections that do not meet mobility targets. There is very little minor street turning traffic at the Denney School Road/Oak Street intersection and it would not meet peak hour traffic signal warrants under either 30HV or average weekday traffic volumes. The OR 34/Denney School Road intersection would not meet ODOT's preliminary traffic signal warrants.[34] The intersection has been configured to allow free eastbound right-turns and two-stage northbound left-turns (crossing eastbound traffic to a median lane as the first stage and merging with westbound traffic as the second stage). Even with this intersection configuration, adequate capacity is not available in the p.m. peak hour under 30 HV volumes. While the v/c for the northbound left is significantly better under average weekday conditions, it still exceeds ODOT's mobility target.

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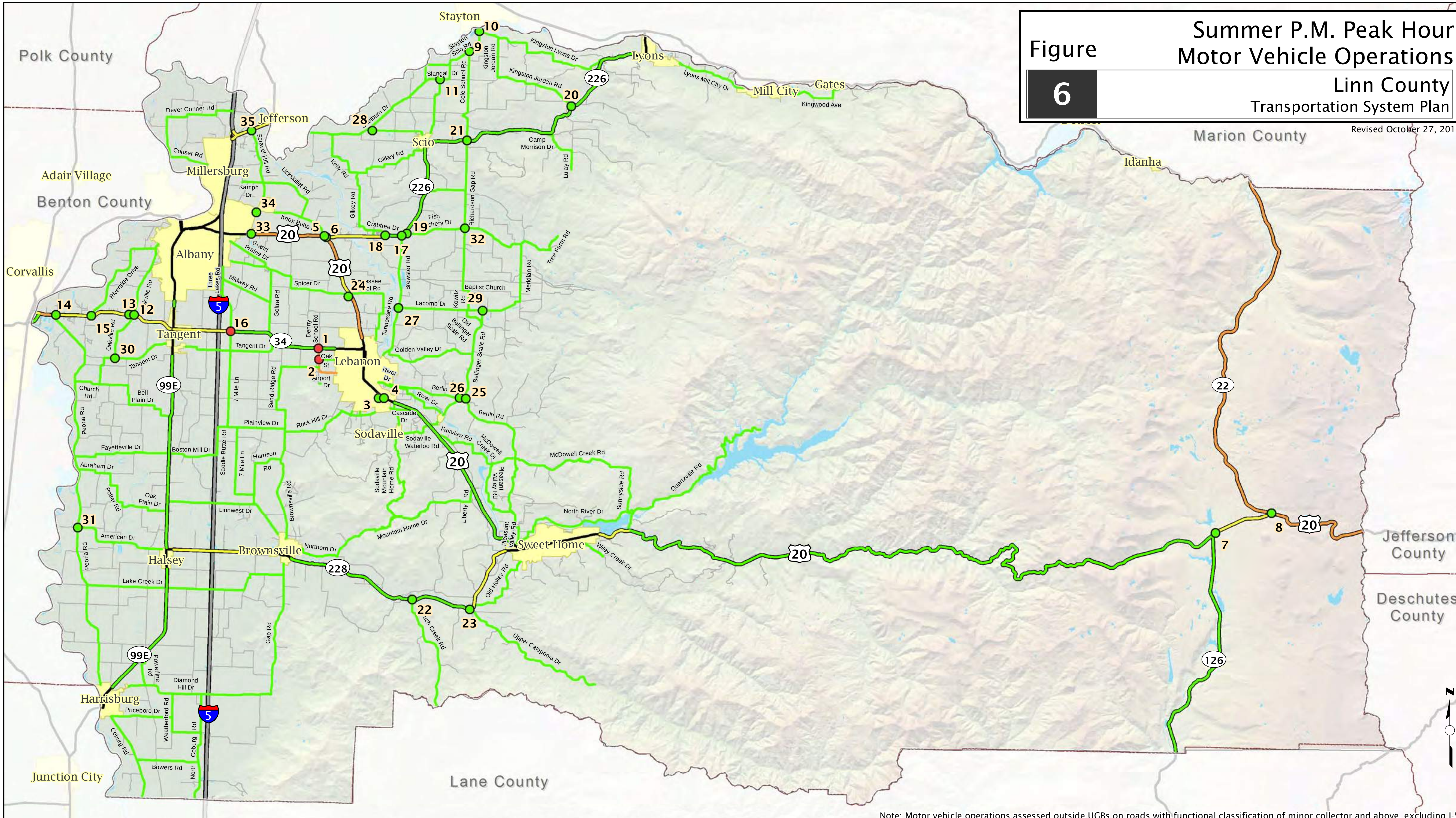
[32] *2000 Highway Capacity Manual*, Transportation Research Board, Washington DC, 2000.
[33] *2010 Highway Capacity Manual*, Transportation Research Board, Washington DC, 2010.
[34] Oregon Department of Transportation, Transportation Planning Analysis Unit, Preliminary Traffic Signal Warrant Analysis.

Figure 6

Summer P.M. Peak Hour Motor Vehicle Operations

Linn County Transportation System Plan

Revised October 27, 2015



Legend

Summer P.M. Peak Hour Operations

- LOS D (Segments)
- LOS C (Segments)
- LOS B (Segments)
- LOS A (Segments)

- Does Not Meet Mobility Targets (Study Intersections)
- Meets Mobility Targets (Study Intersections)

- Interstate
- State Highways
- County Arterials and Collectors
- County Local Roads

- Water
- Urban Growth Boundary

Linn County Transportation System Plan

Table 9: Intersection Operations Results

#	Intersection	Jurisdiction	Signalized/ Unsignalized	Mobility Target	30 HV	Average Weekday
1	OR 34/Denny School Rd	ODOT	Unsignalized	0.70/0.75	0.01/**0.85**	0.01/**0.68**
2	Denney School Road/Oak Dr	County	Unsignalized	LOS D	A/**F**	A/**E**
3	Central Ave/Crowfoot Rd Cascade Dr/Crowfoot Rd	County (w/in UGB)	Unsignalized Unsignalized	LOS D LOS D	A/B A/B	A/B A/B
4	US 20/Crowfoot Rd	ODOT (w/in UGB)	Unsignalized	0.85/0.90	0.08/0.25	0.07/0.19
5	US 20/Knox Butte Dr	ODOT	Unsignalized	0.70/0.75	0.01/0.64	0.01/0.48
6	US 20/OR 226	ODOT	Unsignalized	0.70/0.75	0.28/0.47	0.23/0.34
7	US 20/OR 126 (McKenzie Hwy)	ODOT	Unsignalized	0.70/0.70	0.11/0.11	0.07/0.07
8	US 20/OR 22/OR 126	ODOT	Unsignalized	0.70/0.70	0.19/0.26	0.11/0.14
9	Stayton-Scio Rd/Cole School Rd	County	Unsignalized	LOS D	A/C	A/B
10	Stayton-Scio Rd/Kingston-Jordan Rd	County	Unsignalized	LOS D	A/B	A/B
11	Stayton-Scio Rd/Slangal Dr	County	Unsignalized	LOS D	A/B	A/B
12	OR 34/Oakville Rd N	ODOT	Unsignalized	0.70/0.75	0.46/0.45	0.41/0.40
13	OR 34/Oakville Rd S	ODOT	Unsignalized	0.70/0.75	0.07/0.10	0.05/0.09
14	OR 34/Peoria Road	ODOT	Signalized	0.70	0.81	0.77
15	OR 34/Riverside Dr	ODOT	Unsignalized	0.70/0.75	0.18/0.14	0.16/0.12
16	OR 34/7 Mile Ln	ODOT	Unsignalized	0.70/0.75	0.04/**1.01**	0.03/0.60
17	OR 226/Brewster Rd	ODOT	Unsignalized	0.75/0.75	0.06/0.19	0.05/0.15
18	OR 226/Crabtree Dr	ODOT	Unsignalized	0.75/0.75	0.01/0.02	0.01/0.02
19	OR 226/Fish Hatchery Dr	ODOT	Unsignalized	0.75/0.75	0.01/0.10	0.01/0.08

#	Intersection	Jurisdiction	Signalized/ Unsignalized	Mobility Target	30 HV	Average Weekday
20	OR 226/Kingston-Jordan Dr	ODOT	Unsignalized	0.75/0.75	0.05/0.02	0.04/0.02
21	OR 226/Richardson Gap Rd	ODOT	Unsignalized	0.75/0.75	0.03/0.17	0.02/0.14
22	OR 226/Brush Creek Rd	ODOT	Unsignalized	0.75/0.75	0.04/0.10	0.03/0.08
23	OR 228/Upper Calapooia Dr	ODOT	Unsignalized	0.75/0.75	0.02/0.05	0.02/0.04
24	US 20/Spicer Rd	ODOT	Unsignalized	0.70/0.75	0.07/0.22	0.06/0.18
25	Berlin Rd/Bellinger Scale Rd	County	Unsignalized	LOS D	A/A	A/A
26	Berlin Rd/Waterloo Rd	County	Unsignalized	LOS D	A/A	A/A
27	Brewster Rd/Lacomb Dr	County	Unsignalized	LOS D	A/B	A/B
28	Jefferson-Scio Rd/Shelburn Dr	County	Unsignalized	LOS D	A/A	A/A
29	Bellinger Scale Rd/Lacomb Dr	County	Unsignalized	LOS D	A/A	A/A
30	Oakville Rd/Tangent Dr	County	Unsignalized	LOS D	A/A	A/A
31	Peoria Rd/American Dr	County	Unsignalized	LOS D	A/B	A/B
32	Fish Hatchery Dr/Richardson Gap Rd	County	Unsignalized	LOS D	A/B	A/B
33	US 20/Scravel Hill Rd	ODOT (w/in UGB)	Unsignalized	0.95/0.95	0.08/0.12	0.07/0.10
34	Knox Butte Rd/Scravel Hill Rd	County (w/in UGB)	Unsignalized	LOS D	A/B	A/B
35	OR 164/Scravel Hill Rd	ODOT	Unsignalized	0.75/0.75	0.07/0.26	0.06/0.20

Bold/Red – indicates mobility target not met

Segment Operations

Summer p.m. peak hour segment operations are also summarized in Figure 6. This figure shows that the majority of both state highway and county roadway segments operate at level of service A or B, even during Summer p.m. peak hour conditions. Exceptions include OR 22 and US 20, between Albany and Lebanon and east of the merge with OR 22, which operate at level of service B or C.

Average weekday p.m. peak hour segment operations are better than the summer operations for all segments.

Reported Needs

In addition to a data-driven analysis, county and ODOT maintenance staff, who spend a significant amount of time on the roadway network, were consulted in order to determine if there are locations with deficiencies that may not show up in the data. These deficiencies could be related to access, mobility, geometric (e.g. lane and/or shoulder width, intersection skew, etc.), traffic operations (e.g. intersection control, turn lane needs), maintenance, safety, bicycle, pedestrian or transit. These needs are summarized in Figure 7 and are tabulated in the appendix. Concerns are mostly safety related, including poor intersection geometrics (e.g. skewed intersections), poor sight distance (e.g. vegetation, horizontal curves, vertical curves), or drivers not stopping at stop signs.

Pavement Condition

The Pavement Condition Index (PCI) is a numerical rating system for evaluating and recording the condition of road segments. The PCI is determined by performing a systematic survey of sections of each road segment. The survey evaluates the type, extent, and severity of different forms of pavement distress as a composite index.

The PCI provides a record of the current condition of the road system. By using it as a component of an ongoing pavement management system, and performing the survey on a regular schedule, the PCI helps to indicate the performance of pavement surfaces and their deterioration over time. This information helps to inform pavement management decisions.

The Pavement Condition Index provides a rating structure from zero to 100. On this scale, zero is the worst condition, and 100 is the best. Break points are established within that range to indicate the relative condition of the road segment. Linn County establishes those break points as follows:

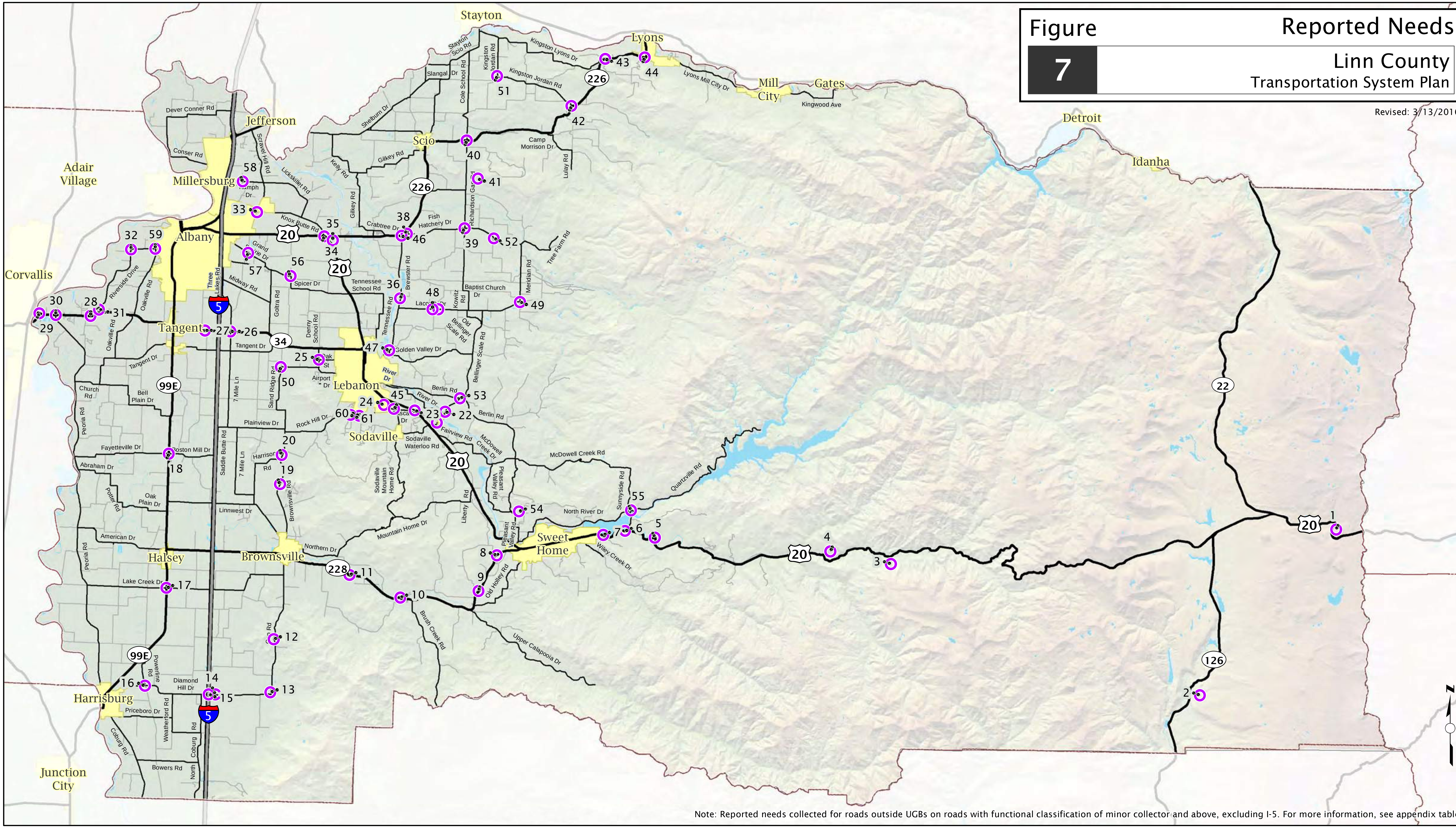
Very Good............81% to 100%
Good....................61% to 80%
Poor.....................41% to 60%
Very Poor.............0% to 40%

Figure 7

Reported Needs

Linn County Transportation System Plan

Revised: 3/13/2016



Note: Reported needs collected for roads outside UGBs on roads with functional classification of minor collector and above, excluding I-5. For more information, see appendix table.

Legend

Reported Needs and Key Numbers

- Reported Need
- Interstate
- State Highways
- County Arterials and Collectors
- County Local Roads
- Water
- Urban Growth Boundary

Linn County Transportation System Plan

The Linn County Road Department uses the PCI and other factors in determining preventive maintenance strategies, identifying maintenance repair and reconstruction needs, developing budgets, and evaluating the performance of different materials and pavement designs. Other factors considered include the following:

- road segment functional classification
- traffic volume
- type of traffic (e.g. percentage of trucks)
- other structural deficiencies or maintenance needs

Linn County's current pavement condition, based on the categories described above, is shown in Figure 8 and summarized in Table 10 for arterial and collector roadways. In general, pavement condition is better on arterials than collectors in the county.

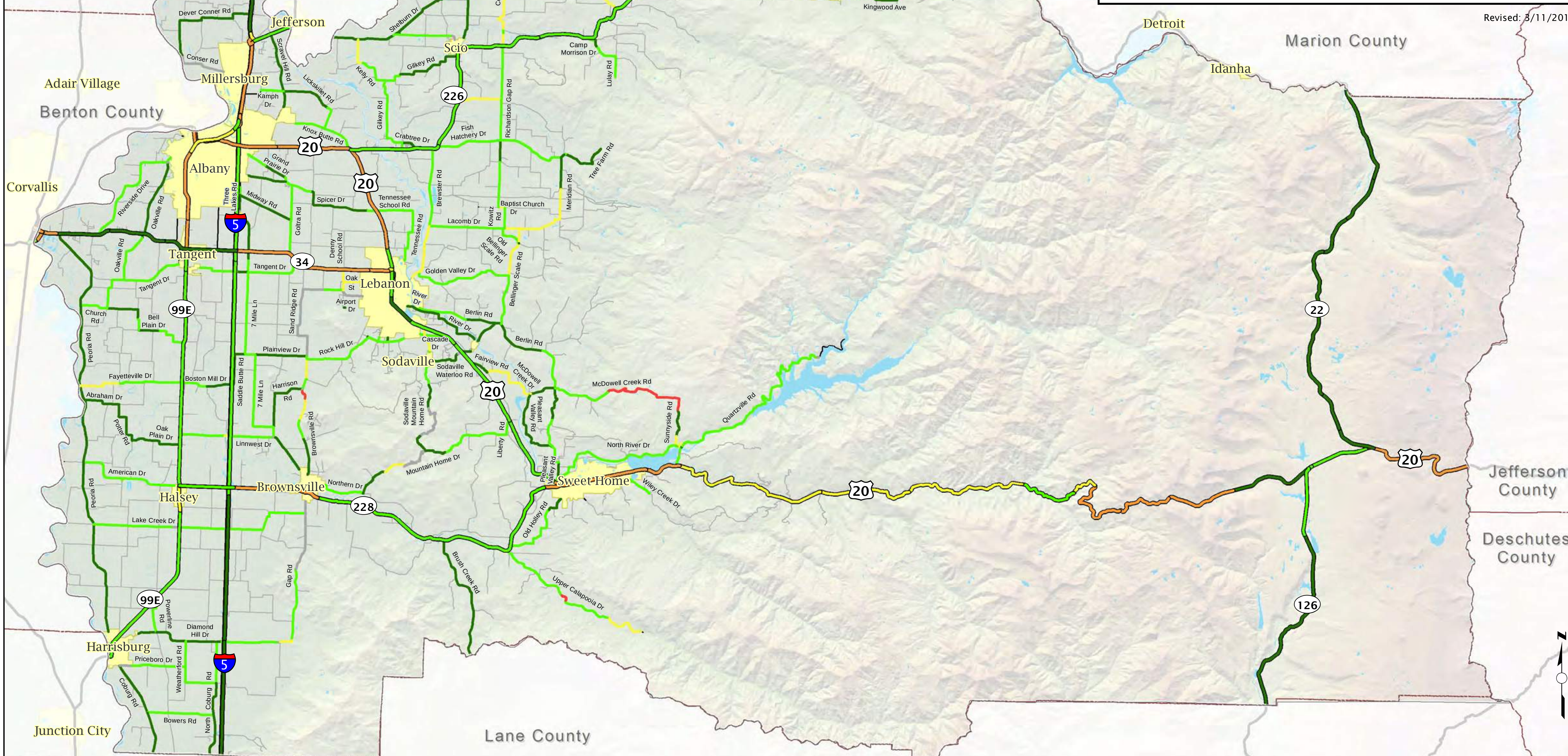
Table 10: Existing Pavement Condition by Functional Classification

Functional Classification	Very Good	Good	Poor	Very Poor
Arterial	83%	3%	14%	0%
Collector	37%	52%	10%	<1%

Figure 9 Pavement Conditions

Linn County Transportation System Plan

Revised: 3/11/2016



Notes: Pavement conditions based on 2014 data using Pavement Condition Index (PCI) ranges as defined in the memo. County local roads not analyzed.

Legend

Pavement Condition

County Roadways
- Very Poor
- Poor
- Good
- Very Good

ODOT Highways
- Very Poor
- Poor
- Fair
- Good
- Very Good

County Arterials and Collectors with No Data

County Local Roads

Water

Urban Growth Boundary

Linn County Transportation System Plan

Transportation System Management and Operations (TSMO)

Transportation System Management and Operations (TSMO) is a set of integrated transportation solutions for improving the performance of existing transportation infrastructure through a combination of system and demand management strategies and programs.

Transportation System Management (TSM): TSM solutions attempt to better manage the flow of traffic to achieve maximum efficiency of the current roadway system, and to increase safety through increased driver awareness of unexpected roadway conditions. In Linn County, there are some existing and potential TSM opportunities, which are listed below:

- Traffic signal improvements
- Traffic signal coordination
- Access management
- Local street connectivity
- Cameras for monitoring travel conditions (US 20 at m.p. 31.27 – Sweet Home – South Shore Foster Lake, m.p. 63.63 – Tombstone Summit, m.p. 74.8 – Santiam Junction Sign Bridge, m.p. 80.16 – Santiam Pass/ODOT Sand Shed)
- Variable Message Sign (VMS) providing traveler information such as incident management (existing signs on US 20 at m.p. 31.27)
- Highway Advisory Radio
- Roadway Weather Information System (US 20 at m.p. 63.63 – Tombstone Summit, m.p. 80 – Santiam Sno-Park)

In the rural portion of Linn County, some of the best opportunities will be related to access management and local street connectivity since traffic volumes on the rural roadway network are typically lower. There may be some opportunities on the state highway system for traveler information and improved mobility opportunities.

Transportation Demand Management (TDM): TDM solutions encourage travelers to choose alternatives to driving alone in their car by providing services, incentives, supportive infrastructure and awareness of travel options. These strategies improve the performance of the existing infrastructure and services, and may result in fewer vehicles on the roadway system. TDM measures in use in Linn County include or could include:

- Investment in pedestrian/bicycle facilities.
- Investment in transit infrastructure and operations.
- Incentives/requirements for employers (e.g. telecommuting, compressed work week, transit pass/alternative mode subsidies, vanpools, providing bicycle parking, etc.)

Since there are limited development opportunities in the rural (outside UGB's) portion of Linn County, opportunities for employer incentives are also likely to be somewhat limited.

Safety Evaluation

Safety is one of the most important considerations when assessing transportation system performance. The safety of Linn County and State Highway roadways were evaluated by reviewing collision data and identifying patterns of motor vehicle, pedestrian, and bicyclist collisions.

ODOT provides uniform and verified motor vehicle crash data though the Crash Analysis and Reporting Unit. This includes collisions with pedestrians and bicyclists, but only if a motor vehicle was involved. Crash reports are the responsibility of individual drivers, and are only required in the event of death, bodily injury, or damage exceeding $1,500. As such, low-severity crashes are generally underreported.

The latest available collision data for Linn County was analyzed for crashes occurring outside of Urban Growth Boundaries. A total of 3104 collisions were report, with an annual average ranging from 576 to 669.

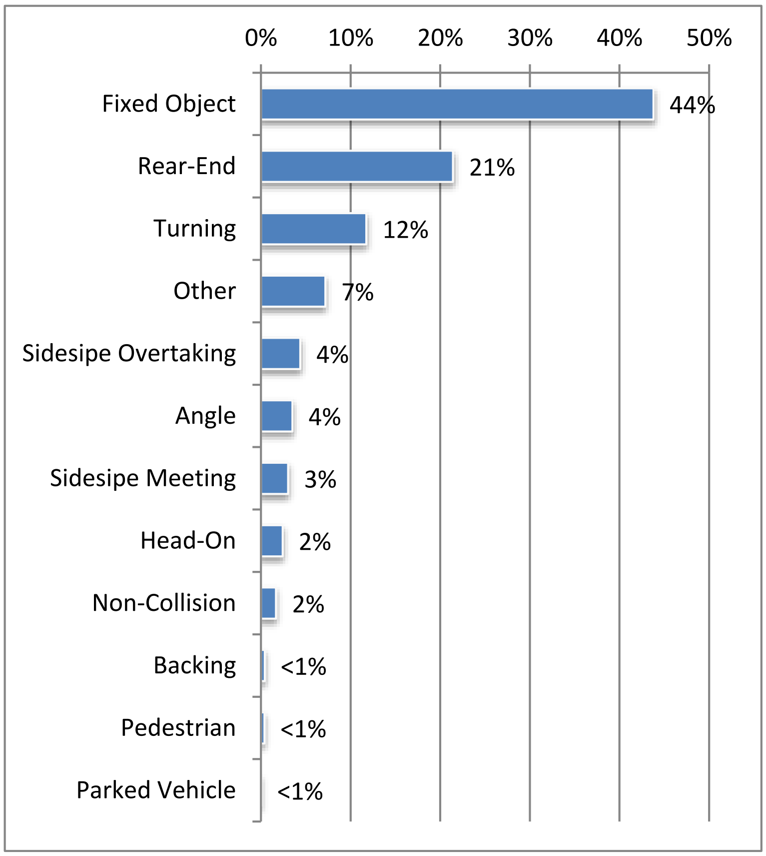


Figure 9: Linn County Collisions (2009 – 2013)

As shown in Figure 9, fixed object collisions were the most predominate of the collisions, about 44 percent, followed by rear-end collisions, 21 percent, and turning collisions, at 12 percent.

Key causes were driving too fast (26 percent) and following too close (16 percent). Other prominent causes involved failure to yield, careless driving, and inattention or fatigue.

Speed was cited in 1044 collisions (34 percent), alcohol was involved in 200 collisions (6 percent), and drugs were involved in 31 collisions (1 percent).

While 70 percent of the collisions involved property damage only (no injuries) or minor injuries, there were 43 fatal collisions over the five year period. With one percent of all collisions resulting in death, Linn County is lower than the statewide average fatality proportion of two percent.[35] Thirty of the fatal crashes were on ODOT highways and 13 on County roads. The majority of fatal crashes (58 percent) were fixed-object or head-on collisions on roadway segments. An additional 10 percent of fatal

[35] ODOT 2013 Crash Rate Book, Table IV. Fatality proportion for Rural Areas.

collisions were angle or turning collisions at intersections, while almost 10 percent of fatal collisions were pedestrians struck on roadway segments. On segments, speed and other improper driving were the most common causes of fatal crashes. At intersections, fatal crashes were mostly caused by passing the stop sign or failure to yield. Alcohol and/or drugs were involved in 64 percent of the fatalities.

Pedestrian Safety

There were 14 pedestrian involved collisions over the five year period in the study area, four of which were fatal. The collisions were distributed throughout the county, with nine on county roadways and five on ODOT highways. Most (64 percent) were in the dark, at dawn or at dusk. All but one were on road segments. The one intersection crash was on a county road, at the intersection of Pleasant Valley Road and McDowell Creek Drive. A driver made an improper turn, jumped the curb, and hit a pedestrian causing evident injury.

The four fatal pedestrian collisions occurred on Interstate-5, OR 34, and Kingston-Jordan Drive. The listed cause for all are indicate the pedestrian was improperly in the roadway and/or not visible. Alcohol was involved in three of the four fatal pedestrian collisions.

Bicycle Safety

There were four bicycle involved collisions over the five year period in the study area, all of which resulted in evident injuries. Three were on ODOT highways, (OR 34 and US 20) and one was on a county road (Peoria Road at Brattain Drive). Both collisions were caused by a failure to yield and/or an improper turn.

Intersection Safety

Collision rates (based on 2009-2013 collision data) for each of the 35 study intersections in Linn County can be found in the appendix and summarized in Figure 10. High crash rate locations were identified using the critical crash rate method from the Highway Safety Manual to compare to similar intersections in the county, and by comparison to ODOT intersection 90th percentile crash rates as published in the Analysis Procedures Manual. Crash rates at nine of the study intersections were identified as high.

OR 34 and Peoria Road is a signalized intersection located east of Corvallis approximately one mile from the Van Buren Avenue Bridge over the Willamette River. This intersection is part of the primary route between I-5 and Corvallis. The collisions at this intersection were primarily rear-end collisions where the driver was following too closely. The severity of the collisions were generally low, with most (55 of 66) resulting in property damage only (no injuries) or minor injuries. Although there were no fatalities at this intersection, there was one major injury.

Fish Hatchery Drive and Richardson Gap Road is a two-way stop control intersection, located three miles east of OR 226 and five miles from Crabtree. The majority (4 of 6) of the collisions were caused by drivers failing to yield or disregarding the stop sign indicating that drivers may be improperly judging the gap distance of oncoming vehicles. The severity of the collisions was low, with all the collisions involving property damage only (no injuries) or minor injuries.

US 20 and Knox Butte Road is a three-legged intersection with stop control on the southbound approach. This intersection is located on a horizontal curve approximately 500 feet from the US 20 and OR 226 intersection. The majority (9 of 15) of the collisions were turning or angle type collisions indicating that drivers may be caught off guard by the travel speed of vehicles along US 20. The collisions were mainly (10 of 15) caused by drivers turning improperly or failing to yield at the stop sign. The severities of the collisions were generally low, with the majority (14 of 15) involving property damage only (no injuries) or minor injuries and only one major injury collision and no fatalities.

OR 34 and Denny School Road is a three-legged intersection with stop control on the northbound approach. Denny School Road serves as the south and east Truck Route around Lebanon and there is a raised median along OR 34 and a channelized right turn lane from eastbound OR 34 to Denny School Road. Half (12 of 22) of the collisions at this intersection were turning or angle type from Denny School Road to OR 34. This may indicate that drivers may be improperly judging the gap distance of oncoming vehicles on the highway. The severity of the collisions was low, with the majority (21 of 22) involving property damage only (no injuries) or minor injuries and one major injury.

OR 226 and Brewster Road is three-legged intersection with stop control on the northbound approach. There were five crashes, three of which were cause by speed, one by an improper turn, and one by passing the stop sign. The severity was generally low, with no fatalities or serious injuries resulted from these collisions.

Bellinger Scale Road and Lacomb Drive is a three-legged intersection with stop control on the northbound approach located approximately two miles west of Lacomb. Although there were only four crashes, the intersection crash rate was higher than the average of similar intersections. The four collisions were caused by drivers going too fast or following too closely. Two collisions were rear-end collisions, while the other two involved a fixed object. The severity of the collisions was low, with all the collisions involving property damage only (no injuries) or minor injuries.

Oakville Road and Tangent Drive is a three-legged intersection with stop control onto Oakville Road. The intersection is approximately 2.5 miles south of OR 34. One collision was cause by driver inattentiveness while the other was caused by the driver disregarding the stop sign. Although there were only one minor injury and one property damage only (no injuries) collisions, the crash rate of similar intersection was much lower.

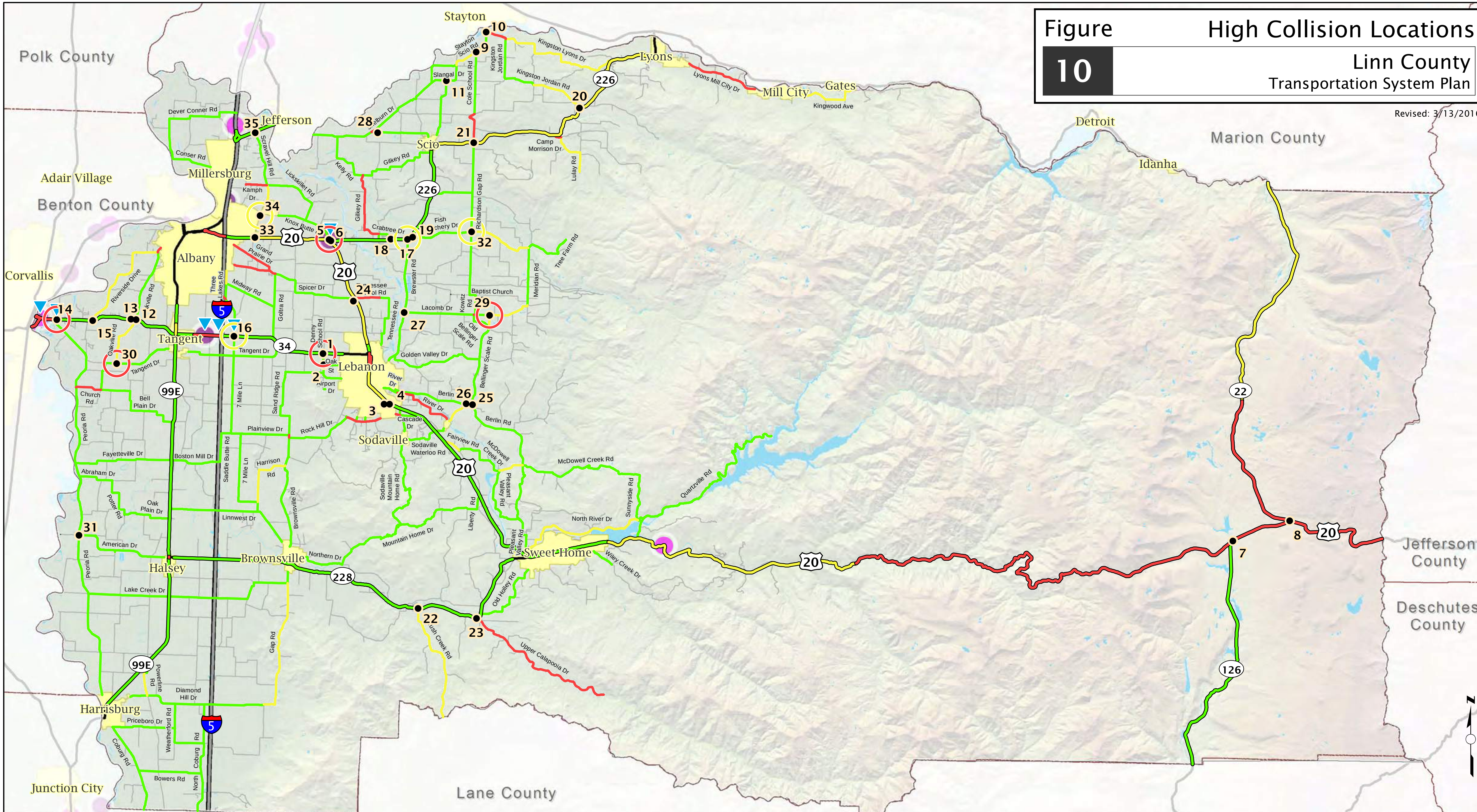
Knox Butte Road and Scravel Hill Road is a two-way stop controlled intersection located approximately two miles east of I-5 and one mile north of US 20. The majority (6 of 8) of the collisions were caused by drivers failing to yield or disregarding the stop sign indicating that drivers may be improperly judging the gap distance of oncoming vehicles. The severity of the collisions was low, with all the collisions involving property damage only (no injuries) or minor injuries.

OR 34 and 7 Mile Lane is a two-way stop controlled intersection with an overhead flashing red signal located less than one mile east of I-5. This intersection is part of the primary route between I-5 and Lebanon. Most of the collisions (19 of the 26) involved drivers failing to yield. This may indicate that drivers improperly judging the gap distance of oncoming vehicles as they approach the intersection. The severities of the collisions were generally low, with most (24 of 26) involving property damage only (no injuries) or minor injuries. There were two major injuries and no fatalities. A traffic signal is planned to be installed at this location in 2016, which should provide safety benefits.

Figure 10 High Collision Locations

Linn County
Transportation System Plan

Revised: 3/13/2016



Notes: Target crash rates defined using the critical crash rate method and by comparison to ODOT published rates (APM 90th percentile rates for intersections, Crash Rate Book Table II rates for segments). See memo for additional details.

Legend

High Collision Locations

Roadway Segments

- Over 150% Target Crash Rate
- 100%-150% Target Crash Rate
- Below Target Crash Rate

Study Intersections

- Over 150% Target Crash Rate
- 100%-150% Target Crash Rate

- SPIS 2014 Top 5% Location
- SPIS 2014 Top 10% Location
- All Roads Transportation Safety (ARTS) Program Location

- Study Intersections Below Target Crash Rate
- Interstate (not analyzed)
- County Local Roads (not analyzed)

- Water
- Urban Growth Boundary

Linn County Transportation System Plan

Roadway Segment Safety

Roadway segment crash rates were reviewed to help identify places outside of the study intersections where crashes are occurring at a higher than expected rate. Figure 10 shows roadway segments where crash rates were found to be higher (100 – 150% of statewide average) or significantly higher (over 150% of statewide average) than averages for similar facilities. Just over 100 miles of ODOT highways were greater than the statewide average, representing slightly more than 50 percent of state miles analyzed. About 90 miles of county roads were greater than the statewide average, representing just over 20 percent of county miles analyzed.

State facilities were evaluated by comparing ODOT Crash Rate Book values for each highway to the statewide average for similar facilities.[36] The Crash Rate Book tables include pre-defined analysis segments. County facilities were evaluated using the critical crash rate method, using analysis segments based on county routes between roadways classified as minor collector or higher. The average ODOT segment length is 3.3 miles, while the average county segment length is 2.2 miles.

The critical crash rate method from the Highway Safety Manual is a statistical method that identifies values that are significantly higher than average while adjusting for the effects of low-volume segments.[37] Critical crash rates were developed using reference populations by functional classification of county roads within Linn County. An additional crash rate comparison was made against statewide average crash rates from the ODOT Crash Rate Book. Analysis details and individual segment results are available in the appendix.

In addition to standard intersection and segment crash rates, ODOT evaluates safety concerns in several other ways, including Safety Priority Index System (SPIS), the All Road Transportation Safety Program (ARTS), the Pedestrian and Bicycle Safety Implementation Plan, and ODOT's Safety Corridors Program. Each of these programs, as they apply to Linn County, is described below.

SPIS Assessment

The Safety Priority Index System (SPIS) is a method developed by ODOT for identifying and ranking hazardous locations on state highways. The score for each 0.10-mile segment of highway is based on three years of crash data, considering crash frequency, rate, and severity. Segments which meet a minimum crash criterion are then ranked from most-hazardous to least-hazardous. The SPIS ranking for a segment indicates safety performance relative to other highways throughout the state.

According to the ODOT 2014 SPIS ratings (which includes data from 2011-2013), four groups of continuous segments in Linn County rank in the top ten percent of SPIS segments.[38] These are among the most hazardous sections of state highways in Oregon. The identified locations are shown in Figure 10 and summarized in Table 11.

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[36] ODOT 2013 Crash Rate Book. Segments compared using 5-year crash rate averages by land use type and functional classification.
[37] 2010 Highway Safety Manual, AASHTO.
[38] There is also an additional SPIS site on I-5, however I-5 is not being reviewed in this study.

Table 11: 2014 SPIS Segments (2011 – 2013 data)

SPIS Segment	Percentile	Collisions (2011 to 2013)	Crash Rate per Million Vehicle Miles	Oregon Average Rate
US-20 at MP 6.40 to 6.57 (at Knox Butte Rd)	Top 95%	22	8.54	8.30
US-20 at MP 34.52 to 34.69 (east of Sweet Home)	Top 90%	4	6.14	11.29
OR-34 at MP 0.26 to 0.37 (at the Pedestrian Walkway & Bike Trail)	Top 90%	23	5.01	4.02
OR-34 at MP 9.07 to 9.25 (at Columbus Street)	Top 95%	11	1.34	3.66

The following is a discussion of each SPIS segment:

US-20 at MP 6.40 to 6.57 at Knox Butte Road

This segment includes curved section of US 20 and the US 20/Knox Butte Road intersection. The majority of the crashes at this location were failure to yield or improperly turning. There were no fatalities at this location and there are no countermeasures proposed.

US-20 at MP 34.52 to 34.69

This segment includes a curved section of US 20 east of Sweet Home. The majority of the crashes at this location were failure to yield or improperly turning. There were no fatalities at this location and there are no countermeasures proposed.

OR-34 at MP 0.26 to 0.37 at the Pedestrian Walkway & Bike Trail

This segment includes the OR 34 Bypass intersection east of the Willamette River just outside of Corvallis. The majority of the crashes at this location are read end crashes caused by drivers following to close. There were no fatalities at this location and there are no countermeasures proposed.

OR-34 at MP 9.07 to 9.25 at Columbus Street

This segment includes the OR 34/Columbus Street intersection located less than a mile west of the I-5/OR 34 interchange. The crashes at this location were primarily turning type crashes where the driver failed to yield properly, improperly changing lanes, or disregarding the stop sign. There was one fatality reported. There are more drivers than expected between the ages of 19-24 and older than 74 involved in crashes at this location. In January 2014 the warning signs for this intersection were upgraded and an oversized stop sign was installed. ODOT has planned improvements which include restricting turns to right-in, right-out only. ODOT anticipates the installation of a cable or concrete barrier along Columbus Street.[39]

[39] SPIS Investigations Report, 2014, ODOT.

ODOT All Roads Transportation Safety (ARTS) Program

The ODOT All Roads Transportation Safety (ARTS) Program is a safety program to address safety needs on all public roads in Oregon. The focus of its limited resources is on reducing fatal and serious injury crashes statewide. The program is data driven to achieve the greatest benefits in crash reduction and is intended to be blind to jurisdiction.[40]

The following projects, and the recommended countermeasures, were identified as part of the 300 percent list, which represent projects equivalent to three times the funding expected to be available:

- OR 34/7 Mile Lane – Install rural traffic signal, actuated advance warning dilemma zone protection system and microwave detection
- OR 34/Olson Road – Install rural traffic signal
- OR 34/Columbus Street – Install median barrier
- OR 34/OR 34 Bypass - Install actuated advance warning dilemma zone protection system and microwave detection

The following projects were also identified as part of the 150 percent list, which represent projects that will be scoped for project delivery.

- OR 34/Peoria Road – Install actuated advance warning dilemma zone protection system and microwave detection
- US 20/Knox Butte Road – Increase sight distance, install right-turn lane on major road approach, reduce driveway density, increase distance to rural roadside obstacles.

ODOT Pedestrian and Bicycle Safety Implementation Plan Priority Locations

ODOT has developed a Pedestrian and Bicycle Safety Implementation Plan[41], which focuses on a combination of two network screening methods: one that relies on a crash-based systemic safety planning process (similar to that used for roadway segments and intersections), and one that relies on a risk-based systemic safety planning process based on roadway characteristics that have contributed to pedestrian and bicycle crashes over the study period, such as the following:

- posted speed
- number of lanes
- presence of bicycle facilities
- number of driveways
- presence of transit stops
- occurrence of pedestrian or bicycle crashes
- annual average daily traffic
- presence of signalized intersections or pedestrian activated systems

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[40] ODOT website, February, 2016.
[41] ODOT Pedestrian and Bicycle Safety Implementation Plan, February, 2014, by Kittelson & Associates, Inc.

The risk-based screening method was completed because pedestrian and bicycle crashes are more rare and sporadic, compared to motorized vehicle crashes, making it more difficult to identify crash patterns. The risk-based screening method only provides a prioritized list of state highway corridors. This is primarily due to the limited availability of consistent inventory data of roadway characteristics of local roads. While the risk of serious pedestrian crashes is likely related to factors such as pedestrian volume, pedestrian age, and volume of turning vehicles, those factors are not included in the method because the data is not available across the roadway network.

The study identified the following segments, in rural Linn County, as priority locations for pedestrian and bicycle safety.

Pedestrian/Bicycle Location

- **Corvallis-Lebanon Highway (OR 34) – between the OR 34 Bypass and just west of Peoria Rd**

Key pedestrian factors: (fatality reported, posted speeds above 40 mph, no transit stops, the absence of traffic signals)

Key bicycle factors: (same as pedestrian factors, plus, high driveway density, lack of bicycle facilities on both sides of the road)

Bicycle Location

- **Santiam Highway (US 20) – Lebanon UGB to just west of Cascade Drive**

Key factors: (high driveway density, minor or moderate injuries, posted speeds above 40 mph, or between 35 mph and 40 mph, lack of bicycle facilities on both sides of the road, presence of traffic signals)

ODOT Safety Corridors

ODOT designates "Safety Corridors" for certain high crash rate highways. According to ODOT's website:

> *Safety corridors are stretches of state highways where fatal and serious injury traffic crash rates are higher than the statewide average for similar types of roadways. To reduce the number of these incidents, the stretch of the road is designated as a "safety corridor" and becomes subject to heightened enforcement and double fines for traffic infractions. Drivers may also be asked to turn on headlights during the day, reduce speed and refrain from passing.*

Oregon's first safety corridor was designated in 1989 and in 1990 the Federal Highway Administration recognized safety corridors as one of the five most promising short-term traffic crash countermeasures. Designation of a safety corridor requires involvement and support from both

ODOT and local stakeholders. The local stakeholders help ensure the continuation of the safety corridor including support with the following 4E elements:[42]

- Enforcement
- Education
- Engineering
- Emergency Medical Services

OR 34, between Corvallis and Tangent, was designated a safety corridor in November, 1993 and remained a safety corridor for 21 years, until July, 2014, when it was decommissioned.

A safety corridor is recommended for decommissioning if any of several criteria are met (e.g. crash rate decreases, designation criteria no longer met, stakeholder requirements not being met, lack of activity or investment in the corridor).

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[42] Oregon Safety Corridor Program Guidelines, ODOT Transportation Safety Division, revised and adopted by TOLT 12/7/2006.

Corridor Health

The U.S. Department of Transportation recommends the use of a multiple criteria to analyze needs and prioritize transportation projects and investments in rural areas.[43] Following this guidance, a corridor health tool was applied for all state highways and county roads within the county and outside Urban Growth Boundaries with a functional classification of collector or higher. The corridor health concept is based on the idea of measuring the "health" of a corridor for several different categories of performance, and then combining the measurements to provide a picture of overall corridor health.

Development of Factors, Weights, and Formulas

The corridor health tool uses a set of evaluation categories with formulas and weights that are used to calculate a composite health score for each road segment. The five evaluation categories reflect the analysis presented earlier in this memo and include safety, geometrics, mobility, pavement condition, and access spacing.

The corridor health tool evaluates all roads classified as minor collector or higher in Linn County. The roads are split where two or more roads meet, forming evaluation segments. Every segment is given a score of Good (1 point), Fair (0.5 point), or Poor (0 points) for each of the five categories as described in Table 12. Where evaluation data varies over a segment, the length-weighted average score is used.

The category scores are multiplied by the category weight, then summed together for an overall segment health score between 0 and 100. A score of 85 or above is Good, a score of 70 or above is Fair, and a score lower than 70 is Poor.

Corridor Health Results

The majority of the roads in Linn County received a good or fair corridor health score overall. A "good" score indicates generally high performance on all evaluation categories. A "fair" score indicates medium performance on all evaluation categories, or a mix of high and low performance. A "poor" score generally indicates low performance in more than one evaluation category, and should be considered as a location for further study in the future.

Altogether, over 600 miles of roadway were assessed with the corridor health tool. Approximately 145 miles (24%) received a "good" rating, 265 miles (44%) received a "fair" rating, and 195 miles (32%) received a "poor" rating. A map of the corridor health scores is shown in Figure 11, and "poor" segments are summarized in Table 13.

[43] U.S. Department of Transportation, Planning for Transportation in Rural Areas, (2001).

Table 12: Corridor Health Tool Scoring Methodology

Category	Weight	Scoring Criteria
Safety	35	Safety is scored by comparing the segment crash rate (crashes per million vehicle miles traveled) to the ODOT published statewide averages for similar facilities. **Good**: Crash rate at or below average **Fair**: Crash rate between 100% and 150% of average **Poor**: Crash rate over 150% of average
Geometrics	25	Geometrics is scored by evaluating the segment travel lane width and paved shoulder width. Shoulder widths are compared to minimum and desired widths, as described in the existing conditions memo. **Good**: Shoulder width meets desired *OR* shoulder width meets minimum and lane width at least 11 feet **Fair**: Shoulder width meets minimum *OR* shoulder width does not meet minimum and lane width at least 11 feet **Poor**: Shoulder width does not meet minimum and lane width not at least 11 feet
Traffic Operations	20	Traffic operations is scored by evaluating the P.M. peak hour level of service on the segment and identifying any study intersections that do not meet mobility targets. **Good**: Segment LOS A or LOS B **Fair**: Segment LOS C **Poor**: Segment LOS D, or segment includes a study intersection which does not meet mobility targets.
Pavement Condition	10	Pavement conditions are scored based on Pavement Condition Index (PCI) score ranges established by ODOT or Linn County. **Good**: Pavement condition "very good" **Fair**: Pavement condition any intermediate score **Poor**: Pavement condition "poor" or worse
Access Density	10	Access density is scored based on ODOT's spacing standards. Access density was only evaluated on OR-34 and US-20 based on county staff input, all other segments received a default score of good. **Good**: Access spacing meets ODOT's spacing standard in both directions **Fair**: Access spacing meets ODOT's spacing standard in one direction **Poor**: Access spacing does not meet ODOT's spacing standard in either direction

Table 13: Segments with an Overall Corridor Health Score of Poor

Roadway	Segment Start	Segment End	Evaluation Categories: Safety	Geometrics	Traffic Operations	Pavement Condition	Access Spacing
Roadways under State Jurisdiction							
US 20	Albany UGB	Lebanon UGB	*Fair*	*Good*	*Fair/Good*	*Fair*	***Poor***
US 20	Quartzville Rd.	Jefferson County Line	***Poor***	*Good*	*Fair/Good*	*Fair*	*Good*
OR 34	Corvallis UGB	OR 34	***Poor***	*Good*	*Good*	*Fair*	*Good*
OR 34	OR 34	Peoria Rd.	***Poor***	*Good*	***Poor***	*Fair*	***Poor***
OR 34	Columbus St.	Seven Mile Ln.	*Fair*	*Good*	***Poor***	*Good*	***Poor***
OR 22	Marion County Line	US 20	***Poor***	*Good*	*Fair*	*Good*	*Good*
OR 226	Scio UGB	Lyons UGB	*Fair*	*Fair*	*Good*	*Fair*	*Good*
Roadways under County Jurisdiction							
Riverside Dr., Queen Av.	Albany UGB	OR 34	***Poor/Fair***	*Fair*	*Good*	*Fair*	*Good*
Stayton Scio Rd.	Shelburn Dr.	Kingston Jordan Rd.	*Fair/Good*	***Poor/Fair***	*Good*	***Poor/Fair***	*Good*
Kingston Jordan Rd.	Stayton Scio Rd	Kingston Lyons Dr.	***Poor***	***Poor***	*Good*	***Poor***	*Good*
Shelburn Dr.	Jefferson-Scio Dr.	Shelburn Dr.	***Poor***	***Poor***	*Good*	*Good*	*Good*
Kingston Jordan Rd.	OR 226	Huntley Rd.	*Fair*	*Fair*	*Good*	***Poor***	*Good*
Lyons Mill City Dr.	Lyons UGB	Mill City UGB	***Poor***	***Poor***	*Good*	*Good*	*Good*
Gilkey Rd., Crabtree Dr.	Kelly Rd.	Cold Springs Rd.	***Poor***	*Fair*	*Good*	*Fair*	*Good*
Spicer Dr.	Albany UGB	Goltra Rd.	***Poor***	*Fair*	*Good*	*Fair/Good*	*Good*
Tennessee School Rd.	US 20	Tennessee Rd.	***Poor***	***Poor***	*Good*	*Fair*	*Good*
7 Mile Ln.	Albany UGB	Tangent Dr.	***Poor/Good***	***Poor***	***Poor/Good***	***Poor/Good***	*Good*
Church Rd.	Oakville Rd.	Peoria Rd.	***Poor***	***Poor***	*Good*	*Fair*	*Good*
Fayetteville Dr.	Peoria Rd.	OR 99E	*Good*	***Poor***	*Good*	***Poor***	*Good*

Roadway	Segment Start	Segment End	Evaluation Categories Safety	Geometrics	Traffic Operations	Pavement Condition	Access Spacing
Harrison Rd.	7 Mile Ln.	Sand Ridge Rd. / Brownsville Rd.	*Fair*	***Poor***	*Good*	*Good*	*Good*
Berlin Rd.	Waterloo Rd.	Bellinger Scale Rd.	***Poor***	*Fair*	*Good*	*Good*	*Good*
Lacomb Dr.	Old Bellinger Scale Rd.	Kowitz Rd.	***Poor***	*Fair*	*Good*	*Fair*	*Good*
Lacomb Dr.	Bellinger Scale Rd.	Meridian Rd / Ford Mill Rd.	*Fair*	*Fair*	*Good*	***Poor***	*Good*
Oakville Rd.	OR 34	Tangent Dr.	*Fair*	***Poor***	*Good*	*Fair*	*Good*
North River Dr.	Pleasant Valley Rd.	Quartzville Rd.	*Fair/Good*	***Poor***	*Good*	***Poor/Fair***	*Good*
Powerline Rd.	Diamond Hill Dr.	Substation Dr.	*Fair*	*Fair*	*Good*	*Fair*	*Good*
Kamph Dr.	Scravel Hill Rd.	Murder Creek Dr. / Shady Bend Rd.	***Poor***	*Fair*	*Good*	*Fair*	*Good*
Grand Prairie Dr.	Albany UGB	Spicer Dr.	***Poor***	*Fair*	*Good*	*Good*	*Good*
Three Lakes Rd.	Albany UGB	Midway Rd	*Fair*	***Poor***	*Good*	*Fair*	*Good*
Sand Ridge Rd.	Plainview Dr.	Brownsville Rd.	***Poor/Good***	***Poor/Fair***	*Good*	***Poor/Fair***	*Good*
Weatherford Rd.	Diamond Hill Dr.	Priceboro Dr.	*Good*	***Poor***	*Good*	***Poor***	*Good*
Montgomery Dr.	Richardson Gap Rd.	OR 226	*Good*	***Poor***	*Good*	***Poor***	*Good*
Richardson Gap Rd.	OR 226	Ridge Dr.	***Poor***	***Poor***	*Good*	***Poor***	*Good*
Fish Hatchery Dr.	Richardson Gap Rd.	Meridian Rd.	*Fair*	*Fair*	*Good*	*Fair*	*Good*
Baptist Church Dr.	Kowitz Rd.	Richardson Gap Rd.	*Good*	***Poor***	*Good*	***Poor***	*Good*
Denny School Rd.	OR 34	Oak St.	*Good*	*Fair*	***Poor***	***Poor***	*Good*
Rock Hill Dr.	Stoltz Hill Rd.	Lebanon UGB	***Poor***	*Fair*	*Good*	*Fair*	*Good*
Cascade Dr.	Sodaville Rd.	Lebanon UGB	***Poor***	*Fair*	*Good*	*Fair*	*Good*
River Dr., 1st St.	River Dr.	Waterloo UGB	***Poor***	*Fair*	*Good*	*Good*	*Good*

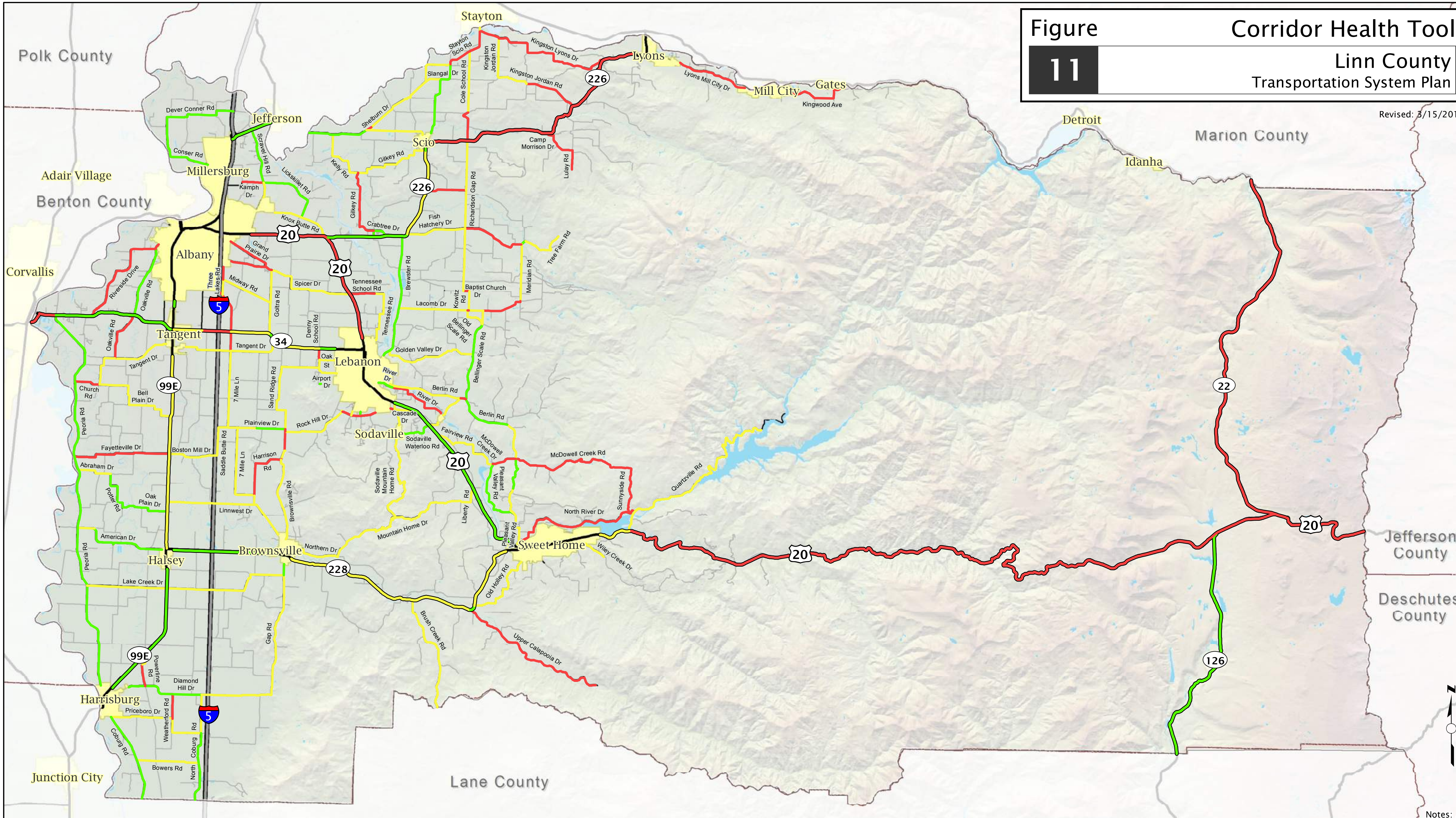
Roadway	Segment Start	Segment End	Evaluation Categories				
			Safety	Geometrics	Traffic Operations	Pavement Condition	Access Spacing
McDowell Creek Dr.	Pleasant Valley Rd.	Berlin Rd.	*Fair*	*Fair*	*Good*	*Good*	*Good*
Fairview Rd.	US 20	Old Santiam Hwy	***Poor***	***Poor***	*Good*	*Good*	*Good*
Upper Calapooia Dr.	OR 228	Forest Roads	***Poor***	*Fair*	*Good*	*Fair*	*Good*
Kingston Lyons Dr.	Kingston Jordan Dr.	OR 226	*Fair*	***Poor***	*Good*	*Fair*	*Good*
Kingwood Ave.	Mill City UGB	Gates UGB	*Fair*	***Poor***	*Good*	*Good*	*Good*
Camp Morrison Dr.	OR 226	Lulay Rd.	***Poor***	*Fair*	*Good*	*Fair*	*Good*
Lulay Rd.	Camp Morrison Dr.	Forest Roads	*Fair*	***Poor***	*Good*	*Fair*	*Good*
McDowell Creek Dr., Sunnyside Rd.	North River Dr.	Berlin Rd.	*Good*	***Poor***	*Good*	***Poor***	*Good*

Note: continuous segments with a poor overall score simplified for display, see appendix for full results.

Figure 11 Corridor Health Tool

Linn County Transportation System Plan

Revised: 3/15/2016



Legend

Corridor Health Assessment

- Poor
- Fair
- Good

Roadways Not Evaluated

- Interstate
- State Highways in UGBs
- County Local Roads

- Water
- Urban Growth Boundary

Linn County Transportation System Plan

Bridges

Existing bridge conditions and needs were analyzed based on data obtained from ODOT's Technical Services Branch, Bridge Section. The database contains information on all non-federal bridges in the state, with data from inspections conforming to the National Bridge Inventory (NBI) requirements.[44] Information includes general condition summaries, sufficiency ratings, structural conditions, and height and load restrictions for both ODOT and county bridges.

Within Linn County, there are 405 bridges along state and county roadways outside Urban Growth Boundaries, 110 of which are along state facilities, and 295 of which are along county facilities.[45] Table 14 summarizes bridges by jurisdiction and condition. Figure 12 shows the locations of bridges on major roadways (roadways classified as collector, or above), highlighting bridge condition, FHWA funding status, and posted load restrictions as described below.

Bridges are classified as "structurally deficient" if they have a general condition rating of poor for the deck, superstructure, substructure or culvert or if the road approaches regularly overtop due to flooding. The classification structurally deficient does not mean a bridge is unsafe, but it is a reminder that the bridge may need further analysis that may result in load posting, maintenance, rehabilitation, replacement or closure. A structurally deficient bridge usually needs maintenance and repair and eventual rehabilitation or replacement to address deficiencies.

A "functionally obsolete" bridge is one that was built to standards that do not meet the minimum design clearance requirements for a new bridge. These bridges do not necessarily have structural deficiencies, and they are not inherently unsafe. Functionally obsolete bridges include those that have sub-standard geometric features such as narrow lanes, narrow shoulders, poor approach alignment or inadequate vertical under clearance.

Table 14: Bridge Conditions

Bridge Condition	ODOT Bridges		County Bridges		All Bridges	
	No.	%	No.	%	No.	%
Not Deficient	90	82%	188	64%	278	69%
Structurally Deficient	0	0%	64	22%	64	16%
Functionally Obsolete	19	17%	12	4%	31	8%
Not Applicable	1	1%	31	11%	32	8%
Total	**110**		**295**		**405**	

44 Federal Highway Administration. Recording and Coding Guide for the Structural Inventory and Appraisal of the Nation's Bridges. 1995

45 Excludes culverts (60) and sign support structures (10).

The sufficiency rating for each bridge is determined by periodic inspections performed by ODOT, using procedures defined for the NBI. The rating is a numeric value indicative of the overall multiple criteria sufficiency of a bridge to remain in service. A score of 100% would represent an entirely sufficient bridge, while a score 0% would indicate a completely deficient bridge. The rating is calculated using a formula comprising the following factors:

- Structural adequacy and safety (maximum of 55%)
- Serviceability and functional obsolescence (maximum of 30%)
- Essentiality for public use (maximum of 15%)
- Special reductions (maximum of -13%)

The Federal Highway Administration (FHWA) uses this index in evaluating the nation's bridges for funding distribution and eligibility. Those bridges with a sufficiency rating of 80 or less are eligible for rehabilitation. Bridges with a rating of 50 or less are eligible for replacement. Bridges lose their eligibility status for a period of ten years after a federal Highway Bridge Program project is completed. Table 15 summarizes the study area bridges by eligibility status based on their sufficiency ratings. See the appendix for documentation on all state and county bridges along with their sufficiency ratings and deficiencies.

Table 15: Bridge FHWA Funding Status

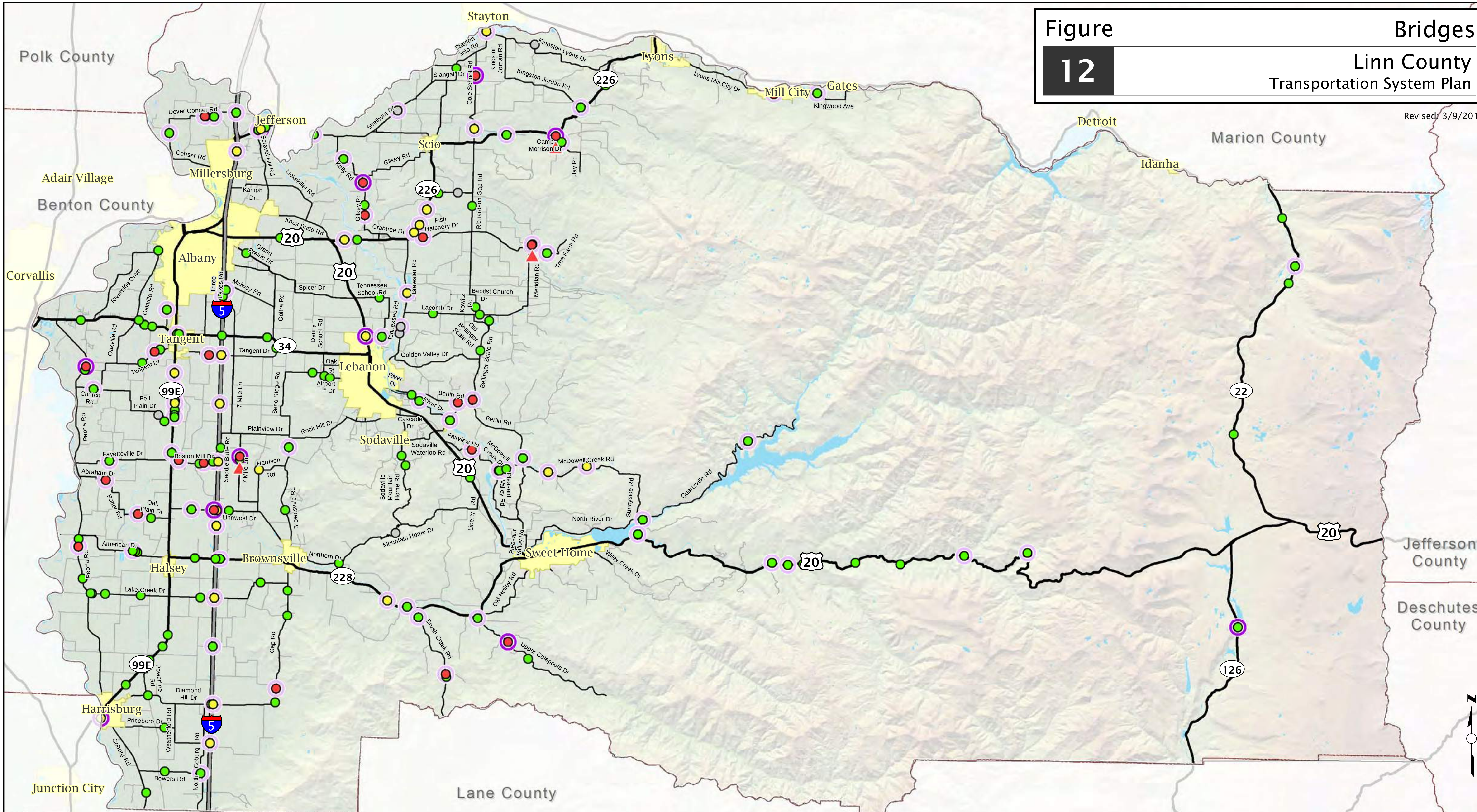
FHWA Funding Status	ODOT Bridges		County Bridges		All Bridges	
	No.	%	No.	%	No.	%
Not Eligible (Suff. Rating > 80)	68	62%	161	55%	229	57%
Eligible for Rehabilitation (Suff. Rating > 50 - 80)	38	35%	114	39%	152	38%
Eligible for Replacement (Suff. Rating <= 50)	4	4%	20	7%	24	6%
Total	**110**		**295**		**405**	

Figure 12

Bridges

Linn County
Transportation System Plan

Revised: 3/9/2016



Notes: Map does not include culverts or sign supports. Bridges on I-5 and local roads not shown.

Legend

Bridge Status

- Structurally Deficient
- Functionally Obsolete
- Not Deficient
- Not Applicable or Unknown

Sufficiency Rating

- Less than 50 (eligible for FHWA replacement funding)
- 50 - 80 (eligible for FHWA rehabilitation funding)
- [no mark] Over 80 (not eligible for FHWA funding)

- Posted Load Restriction
- Interstate
- State Highways
- County Arterials and Collectors
- County Local Roads

- Water
- Urban Growth Boundary

Linn County Transportation System Plan

Freight

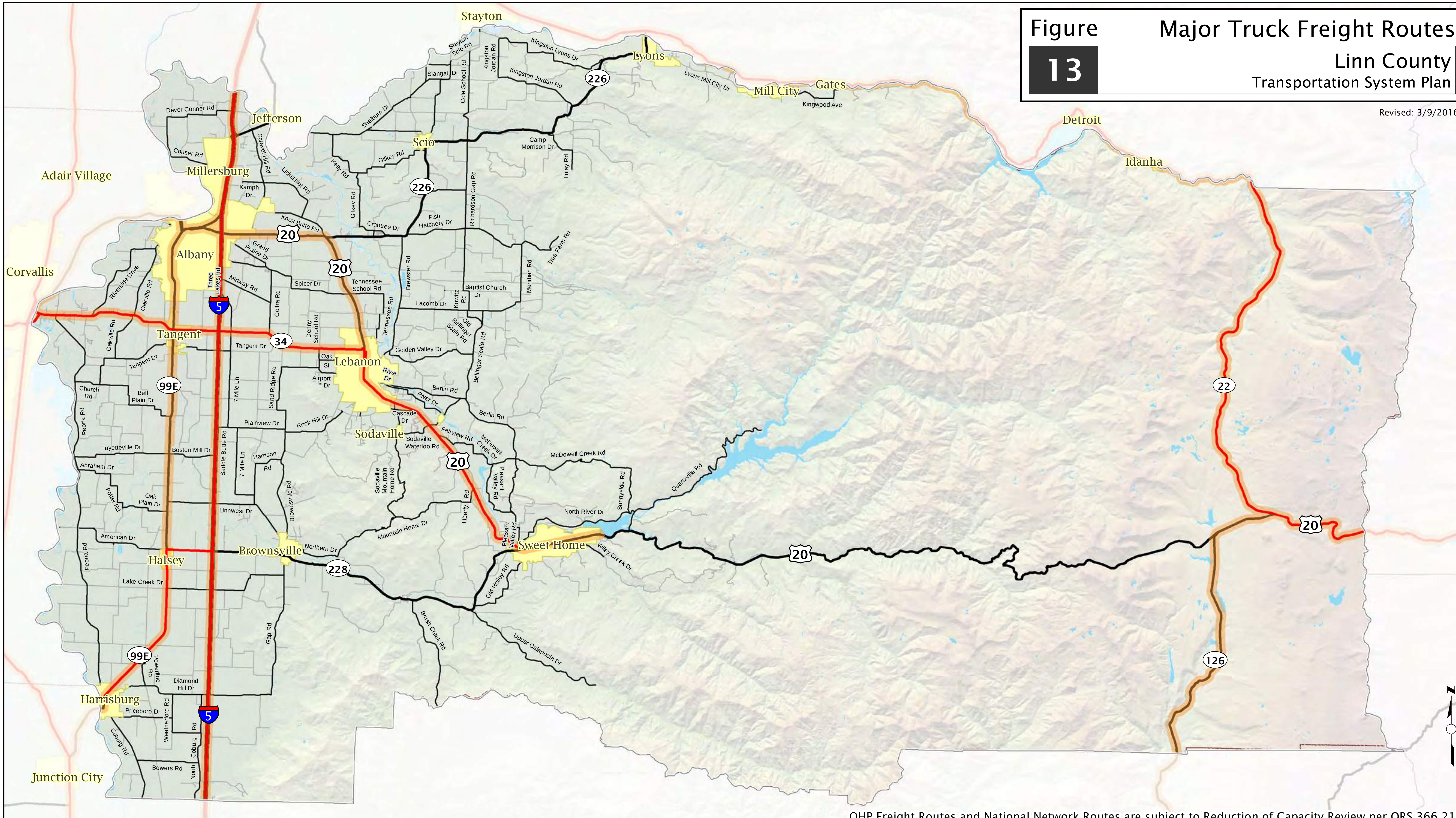
Efficient truck movement plays a vital role in the economical movement of raw materials and finished products. The designation of through truck routes provides for this efficient movement, while maintaining neighborhood livability, public safety, and minimizing maintenance costs of the roadway system.

Highways designated at truck routes by the federal government include I-5, US 20 (between Albany and Sweet Home and east of the OR 22 Junction), OR 99E, OR 34, OR 22 and OR 126, as shown in Figure 13. Federal truck routes generally require 12-foot travel lanes. ODOT also classifies I-5, US 20, OR 22, OR 34, OR 228 and OR 99E between I-5 and Harrisburg as state freight routes, which are subject to reduction of capacity review. Reduction review routes, which include I-5, US 20 (between Albany and Sweet Home), OR 99E, OR 34, OR 22, OR 228 (between Halsey and I-5), and OR 126, are highways that require review with any proposed changes to determine if there will be a reduction of vehicle-carrying capacity.

Figure 13 Major Truck Freight Routes

Linn County Transportation System Plan

Revised: 3/9/2016



Legend

Designated Truck and Freight Routes

- Oregon Highway Plan Freight Routes
- National Network (Federal Truck Routes)
- Other State Highways
- County Arterials and Collectors
- County Local Roads
- Water
- Urban Growth Boundary

Linn County Transportation System Plan

Rail

Two Amtrak train routes serve Albany. The Amtrak Cascades service, connecting Eugene and Vancouver, BC, operates two northbound and two southbound trains each day. The trip from Albany to Eugene takes approximately 45 minutes and the trip from Albany to Portland takes approximately two hours. The Coast Starlight service, connecting Los Angeles and Seattle, operates one northbound train and one southbound train every day. Six Amtrak Thruway buses serve Albany, with routes between Eugene and Portland or Vancouver, BC. The cost varies depending on the type of service and the time of travel.[46]

The Albany & Eastern Railroad Company (AERC) is a short line railroad that primarily transports freight and forest products through communities such as Albany, Lebanon, Sweet Home, Lyons, and Mill City. It operates two branch lines with a total of 53 miles of railroad. The Mill City branch line connects Albany and Mill City through Lebanon, Scio, and Lyons. The Sweet Home branch line connects Lebanon and Sweet Home. In addition, AERC connects to Union Pacific and BNSF lines at its Albany terminal.[47]

Since the 2007 purchase of the AERC, the owners have invested heavily in the refurbishment and upgrades of all of the lines. Work on the Mill City branch was completed in 2010 which incorporated crossing improvements, tie replacement, ballast replacement as well as up sizing much of the existing rail to larger welded rail. AERC was awarded about $5.3 million in 2012 from Connect Oregon III for two railroad upgrade and rehabilitation projects: 1) Lebanon-Albany Mainline Upgrade and 2) Sweet Home Branch Rehabilitation.[48]

All railroad crossings in Linn County's rural area are at grade. A few above- or below- grade railroad crossings are located in urbanized communities.[49]

Air

The Albany Municipal Airport and the Lebanon State Airport are the only two publicly owned and operated airports in Linn County. The Albany municipal airport is a general aviation airport located 3.6 miles east of the city of Albany. Opening in 1920, it is the oldest known operating airfield in Oregon. There are 62 aircraft operations per day on average.[50] The Lebanon State Airport is one mile southwest of the City of Lebanon. There are 27 aircraft operations per day on average. [51]

In 2012 the Albany Municipal Airport and the Lebanon State airport served 12,650 and 5,305 passengers, respectively. Together, these two airports contributed to about $1.2 million in wages related to airport activities and visitor spending.

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46 Ibid
47 http://albanyeastern.com/services/, February, 2016.
48 http://albanyeastern.com/services/, February, 2016.
49 ODOT TransGIS, February, 2016.
50 http://www.dhonline.com/articles/2009/03/04/news/people/5peo01_flight.txt
51 http://www.airnav.com/airport/S30

Master Plan updates are in progress for both the Albany Municipal Airport and Lebanon State Airport, which include a review of compliance with current FAA regulations and capital improvements needed to support operations for the next 20 years[52]. The Albany Municipal Airport Master Plan (2013) Update Draft is currently available, and includes plans to preserve the historic elements of the airport and support continued operations. The plan does not include major impacts to the adjacent surface transportation system. The Lebanon State Airport Master Plan (2016) is currently being developed. Available documents recommend that the airport maintain an A/B-1 design, which would not require major extensions to the runway and would not require significant disruption of Airport Road.

Linn County's Land Development Code includes an Airport Overlay (AO) that protects public use airports from air space obstructions and helps ensure appropriate surrounding land uses. Development within the AO must be reviewed for compliance with height and use standards. The AO applies to areas, outside of city limits, surrounding all public use airports. This applies to Albany Airport, Lebanon Airport, Davis Airport, Daniels Field Airport, Santiam Junction Airport, Green Trees Ranch Airport, and any future public use airports.

[52] Oregon Department of Aviation. Master Plans and Airport Layout Plan Reports. https://www.oregon.gov/aviation/pages/masterplans.aspx

Summary of Existing Conditions (Deficiencies)

Several existing transportation system gaps and deficiencies were noted in the previous sections.

Key transportation system gaps for pedestrians in Linn County include:

- Lack of adequate roadway shoulder along rural state and county roads, particularly near urban areas
- Corvallis-Lebanon Highway (OR 34) – between the OR 34 Bypass and just west of Peoria Rd

Key transportation system gaps for bicyclists in Linn County include:

- Lack of adequate roadway shoulder along rural state and county roads, particularly in recreational areas and near urban areas
- Corvallis-Lebanon Highway (OR 34) – between the OR 34 Bypass and just west of Peoria Rd
- Santiam Highway (US 20) – Lebanon UGB to just west of Cascade Drive

Key transportation system gaps for transit users in Linn County include:

- Lack of transit service for rural residents

Key transportation system issues for drivers in Linn County include:

- High side street delays at OR 34/Denney School Road intersection
- High side street delays at OR 34/7 Mile Lane intersection
- High side street delays at Denney School Road/Oak Street intersection

Key locations with safety issues in Linn County include:

<u>Intersections</u>:

- OR 34/Peoria Road
- Fish Hatchery Drive/Richardson Gap Road
- US 20/Knox Butte Road
- OR 34/Denney School Road
- Bellinger Scale Road/Lacomb Drive
- Oakville Road/Tangent Drive
- Knox Butte Road/Scravel Hill Road
- OR 34/7 Mile Lane

<u>Segments:</u>

Over 150 percent of Target Crash Rate

- State Highways: (US 20 east of Cascadia, OR 22 east of NF 2266)
- County Roadways: (Cole School Road, Gilkey Road, Crabtree Drive, Grand Prairie Drive, Spicer Drive, Tennessee School Road, Rock Hill Drive, River Drive, Cascade

Drive, Upper Calapooia Drive, Church Road, Riverside Drive, Kamph Drive, Shelburn Drive, Kingston-Jordan Road, Lyons-Mill City Drive)

Between 100 and 150 percent of Target Crash Rate

- State Highways: (US 20 between Albany and Lebanon and between Sweet Home and Cascadia, OR 226 between Scio and Lyons, OR 22 between Marion County Line and NF 2266)
- County Roadways: (Kingwood Avenue, Kingston-Lyons Drive, Kingston-Jordan Road, Lulay Road, Stayton-Scio Road, Fish Hatchery Road, Lacomb Drive, Bellinger Scale Road, Waterloo Road, Fairview Road, McDowell Creek Drive, Brush Creek Road, Gap Road, Powerline Road, Harrison Road, Oakville Road, Riverside Drive, Scravel Hill Road)

Safety Priority Index System Segments:

- US 20 at Knox Butte Road (MP 6.40 – 6.57)
- US 20 east of Sweet Home (MP 34.52 – 34.69)
- OR 34 at Pedestrian Walkway and Bike Trail (MP 0.26 – 0.37)
- OR 34 at Columbus Street (MP 9.07 – 9.25)

ARTS Locations:

- OR 34/Peoria Road (150% list)
- US 20/Knox Butte Road (150% list)
- OR 34/7 Mile Lane (300% list)
- OR 34/Olson Road (300% list)
- OR 34/Columbus Street (300% list)
- OR 34/OR 34 Bypass (300% list)

Key ODOT bridges that are structurally deficient and eligible for FHWA replacement funding in Linn County include:

- Peoria Road over slough
- Linn-West Road over I-5
- Seven Mile Lane over Butte Creek
- McClun Road over Calapooia River
- Camp Morrison Road over Thomas Creek
- Cole School Road over Bear Creek
- Gilkey Road over Crabtree Creek

LINN COUNTY TRANSPORTATION SYSTEM PLAN MEMORANDUM #5 – EXISTING CONDITIONS APPENDIX

- Traffic Volumes (Summer PM Peak and Average Weekday)
- Synchro Reports (Summer PM Peak and Average Weekday)
- Priority Lifeline Routes in Linn County
- Reported Needs Table
- Study Intersection Critical Crash Rate Results
- Segment Critical Crash Rate Results
- Corridor Health Tool Results
- Bridge Documentation

Traffic Volumes (Summer PM Peak and Average Weekday)

				Total Vehicle Volumes												PHF	Heavy Vehicle Percentages												Pedestrian Volumes				Bicycle Volumes				30HV Seasonal Factor	Average Weekday Factor
				Northbound			Southbound			Eastbound			Westbound				Northbound			Southbound			Eastbound			Westbound			Intersection Leg				Intersection Approach					
Intersection#	Intersection	Count Date	Peak Hr Start	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	N	S	E	W	NB	SB	EB	WB		
	Existing 2015 PM (Count Values)																																					
1	Denny School Rd--Hwy 34	5/28/2015	4:30 PM	336	0	1	0	0	0	0	339	821	11	267	0	0.89	8	0	100	0	0	0	0	4	2	9	6	0	0	0	0	0	0	0	0	0	1.07	0.93
2	Denny School Rd--Oak St/Hayden Dr	5/28/2015	4:30 PM	0	264	16	166	669	2	1	2	0	1	3	75	0.88	0	7	0	5	2	0	0	0	0	0	33	13	0	0	0	0	0	0	0	0	1.07	0.93
3	Cascade Dr and Crowfoot Rd*	5/28/2015	3:30 PM	12	4	4	15	21	0	0	64	33	24	114	23	0.73	0	10	0	20	10	0	0	7	13	0	7	13	0	1	0	11	2	0	2	0	1.07	0.93
4	Crowfoot Rd--Hwy 20/Santiam Hwy	5/28/2015	3:30 PM	24	0	71	0	0	0	0	719	33	55	527	0	0.93	4	0	16	0	0	0	0	5	6	9	10	0	0	0	0	0	0	0	1	0	1.07	0.93
5	Knox Butte Rd--Hwy 20/Santiam Hwy	5/28/2015	4:15 PM	0	0	0	176	0	14	13	448	0	0	338	125	0.98	0	0	0	3	0	0	8	4	0	0	7	3	0	0	0	0	0	0	0	0	1.07	0.93
6	Hwy 20/Santiam Hwy--OR 226	5/28/2015	4:15 PM	0	301	23	304	324	0	0	0	0	22	0	153	0.96	0	6	9	4	4	0	0	0	0	9	0	6	0	0	0	0	0	0	0	0	1.07	0.93
7	OR 126/McKenzie Hwy--Hwy 20	5/28/2015	3:35 PM	8	0	72	0	0	0	0	26	12	102	51	0	0.85	25	0	12	0	0	0	0	12	25	11	12	0	0	0	0	0	0	0	0	0	1.33	0.88
8	OR 126--US 20/OR 22/Santiam Hwy Junction	5/28/2015	3:35 PM	8	0	89	0	0	0	0	154	6	138	150	0	0.80	12	0	14	0	0	0	0	15	50	12	16	0	0	0	0	0	0	0	0	0	1.33	0.88
9	Stayton-Scio Rd and Cole School Rd*	5/28/2015	3:55 PM	1	1	81	7	0	1	0	135	2	117	136	7	0.91	0	0	10	0	0	0	0	12	0	5	7	0	0	0	0	1	0	0	0	0	1.03	0.92
10	Stayton-Scio Rd--Kingston-Jordan Rd	5/28/2015	3:55 PM	0	237	3	101	267	0	0	0	0	3	0	124	0.87	0	9	0	9	6	0	0	0	0	33	0	6	0	0	0	0	0	0	0	0	1.07	0.93
11	Stayton-Scio Rd--Slangal Dr	5/28/2015	4:05 PM	3	0	118	0	0	0	0	8	0	117	6	0	0.84	0	0	9	0	0	0	0	25	0	8	17	0	0	0	0	0	0	0	0	0	1.07	0.91
12	Oakville Rd (North)--OR 34	5/28/2015	4:30 PM	0	0	0	10	0	190	260	1638	0	0	973	26	0.92	0	0	0	0	0	4	2	5	0	0	7	19	0	0	0	0	0	0	0	0	1.02	0.96
13	Oakville Rd (South)--OR 34	5/28/2015	4:30 PM	3	0	9	8	0	4	0	1887	8	14	1149	0	0.91	0	0	0	38	0	0	0	5	0	7	6	0	0	0	1	0	0	0	0	0	1.02	0.96
14	Peoria Rd--OR 34	5/28/2015	4:30 PM	218	1	64	7	1	37	12	1869	255	31	1254	6	0.94	3	100	3	0	0	0	8	4	4	3	6	0	1	0	6	0	2	8	2	1	1.02	0.96
15	Riverside Dr--OR 34	5/28/15	4:30 PM	0	0	0	0	0	50	84	1798	0	0	1194	8	0.92	0	0	0	0	0	4	1	6	0	0	6	25	0	0	0	0	0	3	1	0	1.02	0.96
16	Seven Mile Ln--OR 34	5/28/15	4:30 PM	33	25	21	80	24	29	30	993	65	7	493	75	0.93	6	4	10	1	8	7	10	3	5	14	9	4	0	0	0	0	0	0	0	0	1.07	0.93
17	Brewster Rd--OR 226	5/28/15	4:30 PM	29	0	68	0	0	0	0	193	55	58	107	0	0.85	3	0	4	0	0	0	0	4	2	7	8	0	0	0	0	0	0	0	0	0	1.11	0.94
18	Crabtree Dr--OR 226	5/28/15	4:30 PM	0	0	0	7	0	2	3	243	0	0	118	18	0.87	0	0	0	14	0	0	0	4	0	0	7	6	0	0	0	0	0	0	0	0	1.11	0.94
19	OR 226--Fish Hatchery Dr	5/28/15	4:30 PM	0	182	79	0	123	0	0	0	0	40	0	2	0.85	0	5	4	0	11	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	1.11	0.94
20	OR 226--Kingston-Jordan Rd	5/28/2015	4:20 PM	0	11	44	16	13	0	0	0	0	56	0	6	0.79	0	9	11	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	1.07	0.91
21	Richardson Gap Rd--Albany-Lyons Hwy	5/28/15	4:20 PM	24	49	32	7	53	8	13	38	26	35	43	0	0.93	0	4	6	0	8	12	31	10	4	14	16	0	0	0	0	0	0	0	0	0	1.07	0.91
22	Brush Creek Rd--OR 228	5/28/15	3:55 PM	10	0	51	0	0	0	0	131	18	37	106	0	0.85	20	0	20	0	0	0	0	9	6	11	11	0	0	0	0	0	2	0	0	0	1.07	0.93
23	Upper Calapooia Dr--OR 228	5/28/15	3:55 PM	3	0	28	0	0	0	0	183	15	22	165	0	0.95	0	0	11	0	0	0	0	12	13	4	9	0	0	1	0	0	0	0	0	0	1.07	0.93
24	US 20/Santiam Hwy--Spicer Dr/Tennessee School D	5/28/15	4:25 PM	74	328	9	5	339	1	1	4	113	4	2	2	0.94	3	6	0	0	4	0	0	0	2	0	50	0	0	0	0	0	0	0	0	0	1.07	0.93
25	Berlin Rd--Bellinger Scale Rd	5/28/15	4:10 PM	0	0	0	14	0	60	74	48	0	0	37	29	0.90	0	0	0	7	0	7	3	4	0	0	0	7	0	0	0	0	0	1	0	0	1.07	0.91
26	Waterloo Rd--Berlin Rd	5/28/15	4:50 PM	9	0	87	0	0	0	0	46	7	59	33	0	0.94	0	0	5	0	0	0	0	4	14	8	0	0	0	0	0	0	0	0	0	1	1.07	0.93
27	Brewster Rd--Lacomb Dr	5/28/15	4:20 PM	0	109	109	38	92	0	0	0	0	72	0	13	0.89	0	5	5	0	9	0	0	0	0	7	0	8	0	0	1	0	0	0	0	0	1.07	0.93
28	Shelburn Dr--Jefferson-Scio Dr	5/28/15	5:00 PM	0	0	0	2	0	6	14	83	0	0	47	0	0.75	0	0	0	0	0	0	7	7	0	0	6	0	0	0	0	0	0	0	0	0	1.07	0.91
29	Bellinger Scale Rd--Lacomb Dr	5/28/15	5:20 PM	18	0	22	0	0	0	0	89	36	10	33	0	0.85	17	0	14	0	0	0	0	6	6	10	3	0	0	0	0	0	0	0	0	0	1.07	0.91
30	Oakville Rd--Tangent Dr	5/28/15	3:30 PM	0	0	0	0	0	3	1	44	0	0	22	1	0.85	0	0	0	0	0	0	0	4	0	0	14	0	0	0	0	0	0	1	0	1	1.07	0.91
31	Peoria Rd--American Dr	5/28/15	4:05 PM	1	74	1	46	77	1	1	2	0	2	0	34	0.87	0	7	0	6	1	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	1.07	0.91
32	Richardson Gap Rd--Fish Hatchery Dr	5/28/15	4:10 PM	8	32	1	16	47	21	22	40	10	0	10	14	0.89	0	12	0	12	13	5	14	0	0	0	0	0	0	0	0	0	0	0	0	0	1.07	0.91
33	Scravel Hill Rd--US 20	5/21/2015	4:15 PM	0	0	0	3	0	52	72	493	0	0	370	3	0.89	0	0	0	0	0	8	6	6	0	0	6	33	0	0	0	0	0	0	0	0	1.07	0.93
34	Scravel Hill Rd NE--Knox Butte Rd E	5/21/2015	4:15 PM	5	55	13	9	34	33	39	118	12	10	84	13	0.92	20	7	0	11	9	0	3	4	0	10	6	0	0	0	0	0	0	0	0	0	1.07	0.93
35	Scravel Hill Rd NE--OR 164	5/21/2015	4:40 PM	15	9	69	10	6	0	2	360	28	63	226	18	0.88	7	11	6	0	0	0	0	2	0	3	4	0	0	0	0	0	0	0	1	2	1.07	0.93
36	Central Ave/Crowfoot Rd	5/28/2015	3:30 PM	13	26	37	0	40	66	30	60	13	77	42	0	0.73	0	12	11	0	5	2	8	7	0	8	7	0	0	1	11	0	2	0	2	0	1.07	0.93
	Existing 2015 PM [30-HV]																																					
1	Denny School Rd--Hwy 34	5/28/2015	4:30 PM	360	0	1	0	0	0	0	363	878	12	286	0	0.89	8	0	100	0	0	0	0	4	2	9	6	0	0	0	0	0	0	0	0	0		
2	Denny School Rd--Oak St/Hayden Dr	5/28/2015	4:30 PM	0	282	17	178	716	2	1	2	0	1	3	80	0.88	0	7	0	5	2	0	0	0	0	0	33	13	0	0	0	0	0	0	0	0		
3	Cascade Dr and Crowfoot Rd*	5/28/2015	3:30 PM	13	4	4	16	22	0	0	68	35	26	122	25	0.73	0	10	0	20	10	0	0	7	13	0	7	13	0	1	0	11	2	0	2	0		
4	Crowfoot Rd--Hwy 20/Santiam Hwy	5/28/2015	3:30 PM	26	0	76	0	0	0	0	769	35	59	564	0	0.93	4	0	16	0	0	0	0	5	6	9	10	0	0	0	0	0	0	0	1	0		
5	Knox Butte Rd--Hwy 20/Santiam Hwy	5/28/2015	4:15 PM	0	0	0	188	0	15	14	479	0	0	362	134	0.98	0	0	0	3	0	0	8	4	0	0	7	3	0	0	0	0	0	0	0	0		
6	Hwy 20/Santiam Hwy--OR 226	5/28/2015	4:15 PM	0	322	25	325	347	0	0	0	0	24	0	164	0.96	0	6	9	4	4	0	0	0	0	9	0	6	0	0	0	0	0	0	0	0		
7	OR 126/McKenzie Hwy--Hwy 20	5/28/2015	3:35 PM	11	0	96	0	0	0	0	35	16	136	68	0	0.85	25	0	12	0	0	0	0	12	25	11	12	0	0	0	0	0	0	0	0	0		
8	OR 126--US 20/OR 22/Santiam Hwy Junction	5/28/2015	3:35 PM	11	0	118	0	0	0	0	205	8	184	200	0	0.80	12	0	14	0	0	0	0	15	50	12	16	0	0	0	0	0	0	0	0	0		
9	Stayton-Scio Rd and Cole School Rd*	5/28/2015	3:55 PM	1	1	83	7	0	1	0	139	2	121	140	7	0.91	0	0	10	0	0	0	0	12	0	5	7	0	0	0	0	1	0	0	0	0		
10	Stayton-Scio Rd--Kingston-Jordan Rd	5/28/2015	3:55 PM	0	254	3	108	286	0	0	0	0	3	0	133	0.87	0	9	0	9	6	0	0	0	0	33	0	6	0	0	0	0	0	0	0	0		
11	Stayton-Scio Rd--Slangal Dr	5/28/2015	4:05 PM	3	0	126	0	0	0	0	9	0	125	6	0	0.84	0	0	9	0	0	0	0	25	0	8	17	0	0	0	0	0	0	0	0	0		
12	Oakville Rd (North)--OR 34	5/28/2015	4:30 PM	0	0	0	10	0	194	265	1671	0	0	992	27	0.92	0	0	0	0	0	4	2	5	0	0	7	19	0	0	0	0	0	0	0	0		
13	Oakville Rd (South)--OR 34	5/28/2015	4:30 PM	3	0	9	8	0	4	0	1925	8	14	1172	0	0.91	0	0	0	38	0	0	0	5	0	7	6	0	0	0	1	0	0	0	0	0		
14	Peoria Rd--OR 34	5/28/2015	4:30 PM	222	1	65	7	1	38	12	1906	260	32	1279	6	0.94	3	100	3	0	0	0	8	4	4	3	6	0	1	0	6	0	2	8	2	1		
15	Riverside Dr--OR 34	5/28/15	4:30 PM	0	0	0	0	0	51	86	1834	0	0	1218	8	0.92	0	0	0	0	0	4	1	6	0	0	6	25	0	0	0	0	0	3	1	0		
16	Seven Mile Ln--OR 34	5/28/15	4:30 PM	35	27	22	86	26	31	32	1063	70	7	528	80	0.93	6	4	10	1	8	7	10	3	5	14	9	4	0	0	0	0	0	0	0	0		
17	Brewster Rd--OR 226	5/28/15	4:30 PM	32	0	75	0	0	0	0	214	61	64	119	0	0.85	3	0	4	0	0	0	0	4	2	7	8	0	0	0	0	0	0	0	0	0		
18	Crabtree Dr--OR 226	5/28/15	4:30 PM	0	0	0	8	0	2	3	270	0	0	131	20	0.87	0	0	0	14	0	0	0	4	0	0	7	6	0	0	0	0	0	0	0	0		
19	OR 226--Fish Hatchery Dr	5/28/15	4:30 PM	0	202	88	0	137	0	0	0	0	44	0	2	0.85	0	5	4	0	11	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0		
20	OR 226--Kingston-Jordan Rd	5/28/2015	4:20 PM	0	12	47	17	14	0	0	0	0	60	0	6	0.79	0	9	11	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0		
21	Richardson Gap Rd--Albany-Lyons Hwy	5/28/15	4:20 PM	26	52	34	7	57	9	14	41	28	37	46	0	0.93	0	4	6	0	8	12	31	10	4	14	16	0	0	0	0	0	0	0	0	0		
22	Brush Creek Rd--OR 228	5/28/15	3:55 PM	11	0	55	0	0	0	0	140	19	40	113	0	0.85	20	0	20	0	0	0	0	9	6	11	11	0	0	0	0	0	2	0	0	0		
23	Upper Calapooia Dr--OR 228	5/28/15	3:55 PM	3	0	30	0	0	0	0	196	16	24	177	0	0.95	0	0	11	0	0	0	0	12	13	4	9	0	0	1	0	0	0	0	0	0		
24	US 20/Santiam Hwy--Spicer Dr/Tennessee School D	5/28/15	4:25 PM	79	351	10	5	363	1	1	4	121	4	2	2	0.94	3	6	0	0	4	0	0	0	2	0	50	0	0	0	0	0	0	0	0	0		
25	Berlin Rd--Bellinger Scale Rd	5/28/15	4:10 PM	0	0	0	15	0	64	79	51	0	0	40	31	0.90	0	0	0	7	0	7	3	4	0	0	0	7	0	0	0	0	0	1	0	0		
26	Waterloo Rd--Berlin Rd	5/28/15	4:50 PM	10	0	93	0	0	0	0	49	7	63	35	0	0.94	0	0	5	0	0	0	0	4	14	8	0	0	0	0	0	0	0	0	0	1		
27	Brewster Rd--Lacomb Dr	5/28/15	4:20 PM	0	117	117	41	98	0	0	0	0	77	0	14	0.89	0	5	5	0	9	0	0	0	0	7	0	8	0	0	1	0	0	0	0	0		
28	Shelburn Dr--Jefferson-Scio Dr	5/28/15	5:00 PM	0	0	0	2	0	6	15	89	0	0	50	0	0.75	0	0	0	0	0	0	7	7	0	0	6	0	0	0	0	0	0	0	0	0		
29	Bellinger Scale Rd--Lacomb Dr	5/28/15	5:20 PM	19	0	24	0	0	0	0	95	39	11	35	0	0.85	17	0	14	0	0	0	0	6	6	10	3	0	0	0	0	0	0	0	0	0		
30	Oakville Rd--Tangent Dr	5/28/15	3:30 PM	0	0	0	0	0	3	1	47	0	0	24	1	0.85	0	0	0	0	0	0	0	4	0	0	14	0	0	0	0	0	0	1	0	1		
31	Peoria Rd--American Dr	5/28/15	4:05 PM	1	79	1	49	82	1	1	2	0	2	0	36	0.87	0	7	0	6	1	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0		
32	Richardson Gap Rd--Fish Hatchery Dr	5/28/15	4:10 PM	9	34	1	17	50	22	24	43	11	0	11	15	0.89	0	12	0	12	13	5	14	0	0	0	0	0	0	0	0	0	0	0	0	0		
33	Scravel Hill Rd--US 20	5/21/2015	4:15 PM	0	0	0	3	0	56	77	529	0	0	397	3	0.89	0	0	0	0	0	8	6	6	0	0	6	33	0	0	0	0	0	0	0	0		
34	Scravel Hill Rd NE--Knox Butte Rd E	5/21/2015	4:15 PM	5	59	14	10	36	35	42	127	13	11	90	14	0.92	20	7	0	11	9	0	3	4	0	10	6	0	0	0	0	0	0	0	0	0		
35	Scravel Hill Rd NE--OR 164	5/21/2015	4:40 PM	16	10	74	11	6	0	2	386	30	68	243	19	0.88	7	11	6	0	0	0	0	2	0	3	4	0	0	0	0	0	0	0	1	2		
36	Central Ave/Crowfoot Rd	5/28/2015	3:30 PM	14	28	40	0	43	71	32	64	14	82	45	0	0.73	0	12	11	0	5	2	8	7	0	8	7	0	0	1	11	0	2	0	2	0		

Intersection#	Intersection	Count Date	Peak Hr Start	Northbound			Southbound			Eastbound			Westbound			
				NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	
	Existing 2015 PM [Average Weekday]															
1	Denny School Rd--Hwy 34	5/28/2015	4:30 PM	312	0	1	0	0	0	0	315	764	10	248	0	0.89
2	Denny School Rd--Oak St/Hayden Dr	5/28/2015	4:30 PM	0	246	15	154	622	2	1	2	0	1	3	70	0.88
3	Cascade Dr and Crowfoot Rd*	5/28/2015	3:30 PM	11	4	4	14	20	0	0	60	31	22	106	21	0.73
4	Crowfoot Rd--Hwy 20/Santiam Hwy	5/28/2015	3:30 PM	22	0	66	0	0	0	0	669	31	51	490	0	0.93
5	Knox Butte Rd--Hwy 20/Santiam Hwy	5/28/2015	4:15 PM	0	0	0	164	0	13	12	417	0	0	314	116	0.98
6	Hwy 20/Santiam Hwy--OR 226	5/28/2015	4:15 PM	0	280	21	283	301	0	0	0	0	20	0	142	0.96
7	OR 126/McKenzie Hwy--Hwy 20	5/28/2015	3:35 PM	7	0	63	0	0	0	0	23	11	90	45	0	0.85
8	OR 126--US 20/OR 22/Santiam Hwy Junction	5/28/2015	3:35 PM	7	0	78	0	0	0	0	136	5	121	132	0	0.80
9	Stayton-Scio Rd and Cole School Rd*	5/28/2015	3:55 PM	1	1	75	6	0	1	0	124	2	108	125	6	0.91
10	Stayton-Scio Rd--Kingston-Jordan Rd	5/28/2015	3:55 PM	0	220	3	94	248	0	0	0	0	3	0	115	0.87
11	Stayton-Scio Rd--Slangal Dr	5/28/2015	4:05 PM	3	0	107	0	0	0	0	7	0	106	5	0	0.84
12	Oakville Rd (North)--OR 34	5/28/2015	4:30 PM	0	0	0	10	0	182	250	1572	0	0	934	25	0.92
13	Oakville Rd (South)--OR 34	5/28/2015	4:30 PM	3	0	9	8	0	4	0	1812	8	13	1103	0	0.91
14	Peoria Rd--OR 34	5/28/2015	4:30 PM	209	1	61	7	1	36	12	1794	245	30	1204	6	0.94
15	Riverside Dr--OR 34	5/28/15	4:30 PM	0	0	0	0	0	48	81	1726	0	0	1146	8	0.92
16	Seven Mile Ln--OR 34	5/28/15	4:30 PM	31	23	20	74	22	27	28	923	60	7	458	70	0.93
17	Brewster Rd--OR 226	5/28/15	4:30 PM	27	0	64	0	0	0	0	181	52	55	101	0	0.85
18	Crabtree Dr--OR 226	5/28/15	4:30 PM	0	0	0	7	0	2	3	228	0	0	111	17	0.87
19	OR 226--Fish Hatchery Dr	5/28/15	4:30 PM	0	171	74	0	116	0	0	0	0	38	0	2	0.85
20	OR 226--Kingston-Jordan Rd	5/28/2015	4:20 PM	0	10	40	15	12	0	0	0	0	51	0	5	0.79
21	Richardson Gap Rd--Albany-Lyons Hwy	5/28/15	4:20 PM	22	45	29	6	48	7	12	35	24	32	39	0	0.93
22	Brush Creek Rd--OR 228	5/28/15	3:55 PM	9	0	47	0	0	0	0	122	17	34	99	0	0.85
23	Upper Calapooia Dr--OR 228	5/28/15	3:55 PM	3	0	26	0	0	0	0	170	14	20	153	0	0.95
24	US 20/Santiam Hwy--Spicer Dr/Tennessee School D	5/28/15	4:25 PM	69	305	8	5	315	1	1	4	105	4	2	2	0.94
25	Berlin Rd--Bellinger Scale Rd	5/28/15	4:10 PM	0	0	0	13	0	55	67	44	0	0	34	26	0.90
26	Waterloo Rd--Berlin Rd	5/28/15	4:50 PM	8	0	79	0	0	0	0	42	6	54	30	0	0.94
27	Brewster Rd--Lacomb Dr	5/28/15	4:20 PM	0	101	101	35	86	0	0	0	0	67	0	12	0.89
28	Shelburn Dr--Jefferson-Scio Dr	5/28/15	5:00 PM	0	0	0	2	0	5	13	76	0	0	43	0	0.75
29	Bellinger Scale Rd--Lacomb Dr	5/28/15	5:20 PM	16	0	20	0	0	0	0	81	33	9	30	0	0.85
30	Oakville Rd--Tangent Dr	5/28/15	3:30 PM	0	0	0	0	0	3	1	40	0	0	20	1	0.85
31	Peoria Rd--American Dr	5/28/15	4:05 PM	1	67	1	42	70	1	1	2	0	2	0	31	0.87
32	Richardson Gap Rd--Fish Hatchery Dr	5/28/15	4:10 PM	7	29	1	15	43	19	20	36	9	0	9	13	0.89
33	Scravel Hill Rd--US 20	5/21/2015	4:15 PM	0	0	0	3	0	48	67	459	0	0	345	3	0.89
34	Scravel Hill Rd NE--Knox Butte Rd E	5/21/2015	4:15 PM	5	51	12	8	32	31	36	110	11	9	78	12	0.92
35	Scravel Hill Rd NE--OR 164	5/21/2015	4:40 PM	14	8	64	9	6	0	2	335	26	59	210	17	0.88
36	Central Ave/Crowfoot Rd	5/28/2015	3:30 PM	12	24	34	0	37	61	28	56	12	72	39	0	0.73

Intersection#	Northbound			Southbound			Eastbound			Westbound			Intersection Leg				Intersection Approach				Seasonal Factor	Weekday Factor
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	N	S	E	W	NB	SB	EB	WB		
1	8	0	100	0	0	0	0	4	2	9	6	0	0	0	0	0	0	0	0	0		
2	0	7	0	5	2	0	0	0	0	0	33	13	0	0	0	0	0	0	0	0		
3	0	10	0	20	10	0	0	7	13	0	7	13	0	1	0	11	2	0	2	0		
4	4	0	16	0	0	0	0	5	6	9	10	0	0	0	0	0	0	0	1	0		
5	0	0	0	3	0	0	8	4	0	0	7	3	0	0	0	0	0	0	0	0		
6	0	6	9	4	4	0	0	0	0	9	0	6	0	0	0	0	0	0	0	0		
7	25	0	12	0	0	0	0	12	25	11	12	0	0	0	0	0	0	0	0	0		
8	12	0	14	0	0	0	0	15	50	12	16	0	0	0	0	0	0	0	0	0		
9	0	0	10	0	0	0	0	12	0	5	7	0	0	0	0	1	0	0	0	0		
10	0	9	0	9	6	0	0	0	0	33	0	6	0	0	0	0	0	0	0	0		
11	0	0	9	0	0	0	0	25	0	8	17	0	0	0	0	0	0	0	0	0		
12	0	0	0	0	0	4	2	5	0	0	7	19	0	0	0	0	0	0	0	0		
13	0	0	0	38	0	0	0	5	0	7	6	0	0	0	1	0	0	0	0	0		
14	3	100	3	0	0	0	8	4	4	3	6	0	1	0	6	0	2	8	2	1		
15	0	0	0	0	0	4	1	6	0	0	6	25	0	0	0	0	0	3	1	0		
16	6	4	10	1	8	7	10	3	5	14	9	4	0	0	0	0	0	0	0	0		
17	3	0	4	0	0	0	0	4	2	7	8	0	0	0	0	0	0	0	0	0		
18	0	0	0	14	0	0	0	4	0	0	7	6	0	0	0	0	0	0	0	0		
19	0	5	4	0	11	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0		
20	0	9	11	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0		
21	0	4	6	0	8	12	31	10	4	14	16	0	0	0	0	0	0	0	0	0		
22	20	0	20	0	0	0	0	9	6	11	11	0	0	0	0	0	2	0	0	0		
23	0	0	11	0	0	0	0	12	13	4	9	0	0	1	0	0	0	0	0	0		
24	3	6	0	0	4	0	0	0	2	0	50	0	0	0	0	0	0	0	0	0		
25	0	0	0	7	0	7	3	4	0	0	0	7	0	0	0	0	0	1	0	0		
26	0	0	5	0	0	0	0	4	14	8	0	0	0	0	0	0	0	0	0	1		
27	0	5	5	0	9	0	0	0	0	7	0	8	0	0	1	0	0	0	0	0		
28	0	0	0	0	0	0	7	7	0	0	6	0	0	0	0	0	0	0	0	0		
29	17	0	14	0	0	0	0	6	6	10	3	0	0	0	0	0	0	0	0	0		
30	0	0	0	0	0	0	0	4	0	0	14	0	0	0	0	0	0	1	0	1		
31	0	7	0	6	1	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0		
32	0	12	0	12	13	5	14	0	0	0	0	0	0	0	0	0	0	0	0	0		
33	0	0	0	0	0	8	6	6	0	0	6	33	0	0	0	0	0	0	0	0		
34	20	7	0	11	9	0	3	4	0	10	6	0	0	0	0	0	0	0	0	0		
35	7	11	6	0	0	0	0	2	0	3	4	0	0	0	0	0	0	0	1	2		
36	0	12	11	0	5	2	8	7	0	8	7	0	0	1	11	0	2	0	2	0		

Synchro Reports (Summer PM Peak and Average Weekday)

Intersection	
Int Delay, s/veh	40.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	363	878	12	286	360	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	None
Storage Length	-	0	450	-	300	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	4	2	9	6	8	100
Mvmt Flow	408	987	13	321	404	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	408	0	756	408
Stage 1	-	-	-	-	408	-
Stage 2	-	-	-	-	348	-
Critical Hdwy	-	-	4.19	-	6.48	7.2
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.281	-	3.572	4.2
Pot Cap-1 Maneuver	-	0	1114	-	~ 367	476
Stage 1	-	0	-	-	659	-
Stage 2	-	0	-	-	702	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	1114	-	~ 363	476
Mov Cap-2 Maneuver	-	-	-	-	~ 363	-
Stage 1	-	-	-	-	659	-
Stage 2	-	-	-	-	694	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	115.4
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	WBL	WBT
Capacity (veh/h)	363	476	-	1114	-
HCM Lane V/C Ratio	1.114	0.002	-	0.012	-
HCM Control Delay (s)	115.7	12.6	-	8.3	-
HCM Lane LOS	F	B	-	A	-
HCM 95th %tile Q(veh)	15.2	0	-	0	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	2	0	1	3	80	0	282	17	178	716	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	50	-	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	33	13	0	7	0	5	2	0
Mvmt Flow	1	2	0	1	3	91	0	320	19	202	814	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1551	1559	815	1550	1550	-	816	0	0	340	0	0
Stage 1	1219	1219	-	330	330	-	-	-	-	-	-	-
Stage 2	332	340	-	1220	1220	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.83	-	4.1	-	-	4.15	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.83	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.83	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4.297	-	2.2	-	-	2.245	-	-
Pot Cap-1 Maneuver	93	113	381	94	97	0	820	-	-	1203	-	-
Stage 1	223	255	-	687	594	0	-	-	-	-	-	-
Stage 2	686	643	-	222	221	0	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	78	94	381	80	81	-	820	-	-	1203	-	-
Mov Cap-2 Maneuver	78	94	-	80	81	-	-	-	-	-	-	-
Stage 1	223	212	-	687	594	-	-	-	-	-	-	-
Stage 2	682	643	-	183	184	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	47.6	52.1	0	1.7
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	820	-	-	88	81	-	1203	-	-
HCM Lane V/C Ratio	-	-	-	0.039	0.056	-	0.168	-	-
HCM Control Delay (s)	0	-	-	47.6	52.1	0	8.6	-	-
HCM Lane LOS	A	-	-	E	F	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	-	0.6	-	-

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	68	35	26	122	25	13	4	4	16	22	0
Conflicting Peds, #/hr	11	0	1	1	0	0	0	0	0	0	0	11
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	93	48	36	167	34	18	5	5	22	30	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	212	0	0	141	0	0	399	401	118	389	407	206
Stage 1	-	-	-	-	-	-	117	117	-	266	266	-
Stage 2	-	-	-	-	-	-	282	284	-	123	141	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1370	-	-	1455	-	-	565	541	939	574	537	840
Stage 1	-	-	-	-	-	-	892	803	-	744	692	-
Stage 2	-	-	-	-	-	-	729	680	-	886	784	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1357	-	-	1454	-	-	524	521	938	548	517	825
Mov Cap-2 Maneuver	-	-	-	-	-	-	524	521	-	548	517	-
Stage 1	-	-	-	-	-	-	892	803	-	737	666	-
Stage 2	-	-	-	-	-	-	670	655	-	874	784	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.1	11.6	12.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	571	1357	-	-	1454	-	-	530
HCM Lane V/C Ratio	0.05	-	-	-	0.024	-	-	0.098
HCM Control Delay (s)	11.6	0	-	-	7.5	0	-	12.5
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.3

Intersection	
Int Delay, s/veh	1.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	769	35	59	564	26	76
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	100	300	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	5	6	9	10	4	16
Mvmt Flow	827	38	63	606	28	82

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	827	0	1257	413
Stage 1	-	-	-	-	827	-
Stage 2	-	-	-	-	430	-
Critical Hdwy	-	-	4.28	-	6.88	7.22
Critical Hdwy Stg 1	-	-	-	-	5.88	-
Critical Hdwy Stg 2	-	-	-	-	5.88	-
Follow-up Hdwy	-	-	2.29	-	3.54	3.46
Pot Cap-1 Maneuver	-	-	756	-	160	551
Stage 1	-	-	-	-	385	-
Stage 2	-	-	-	-	618	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	756	-	147	551
Mov Cap-2 Maneuver	-	-	-	-	273	-
Stage 1	-	-	-	-	385	-
Stage 2	-	-	-	-	567	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	16
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	437	-	-	756	-
HCM Lane V/C Ratio	0.251	-	-	0.084	-
HCM Control Delay (s)	16	-	-	10.2	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	1	-	-	0.3	-

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	14	479	362	134	188	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	None
Storage Length	200	-	-	1	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	8	4	7	3	3	0
Mvmt Flow	14	489	369	137	192	15

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	369	0	-	0	886	369
Stage 1	-	-	-	-	369	-
Stage 2	-	-	-	-	517	-
Critical Hdwy	4.18	-	-	-	6.43	6.2
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.272	-	-	-	3.527	3.3
Pot Cap-1 Maneuver	1157	-	-	0	314	681
Stage 1	-	-	-	0	697	-
Stage 2	-	-	-	0	596	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	1157	-	-	-	310	681
Mov Cap-2 Maneuver	-	-	-	-	310	-
Stage 1	-	-	-	-	697	-
Stage 2	-	-	-	-	589	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	34.1
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	SBLn1
Capacity (veh/h)	1157	-	-	323
HCM Lane V/C Ratio	0.012	-	-	0.641
HCM Control Delay (s)	8.2	-	-	34.1
HCM Lane LOS	A	-	-	D
HCM 95th %tile Q(veh)	0	-	-	4.2

Intersection						
Int Delay, s/veh	5.7					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	24	164	322	25	325	347
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	Yield	-	None
Storage Length	0	-	-	100	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	9	6	6	9	4	4
Mvmt Flow	25	171	335	26	339	361

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1374	335	0	0	335	0
Stage 1	335	-	-	-	-	-
Stage 2	1039	-	-	-	-	-
Critical Hdwy	6.49	6.26	-	-	4.14	-
Critical Hdwy Stg 1	5.49	-	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-	-
Follow-up Hdwy	3.581	3.354	-	-	2.236	-
Pot Cap-1 Maneuver	155	698	-	-	1213	-
Stage 1	709	-	-	-	-	-
Stage 2	331	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	112	698	-	-	1213	-
Mov Cap-2 Maneuver	112	-	-	-	-	-
Stage 1	709	-	-	-	-	-
Stage 2	238	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21	0	4.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	418	1213	-
HCM Lane V/C Ratio	-	-	0.469	0.279	-
HCM Control Delay (s)	-	-	21	9.1	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	2.4	1.1	-

Intersection	
Int Delay, s/veh	5.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	35	16	136	68	11	96
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Yield
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	12	25	11	12	25	12
Mvmt Flow	41	19	160	80	13	113

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	60	0	451	51
Stage 1	-	-	-	-	51	-
Stage 2	-	-	-	-	400	-
Critical Hdwy	-	-	4.21	-	6.65	6.32
Critical Hdwy Stg 1	-	-	-	-	5.65	-
Critical Hdwy Stg 2	-	-	-	-	5.65	-
Follow-up Hdwy	-	-	2.299	-	3.725	3.408
Pot Cap-1 Maneuver	-	-	1488	-	526	989
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	630	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1488	-	467	989
Mov Cap-2 Maneuver	-	-	-	-	467	-
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	559	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5.1	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1102	-	-	1488	-
HCM Lane V/C Ratio	0.114	-	-	0.108	-
HCM Control Delay (s)	8.7	-	-	7.7	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.4	-

Intersection	
Int Delay, s/veh	4.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	205	8	184	200	11	118
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	15	50	12	16	12	14
Mvmt Flow	256	10	230	250	14	148

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	266	0	971	261
Stage 1	-	-	-	-	261	-
Stage 2	-	-	-	-	710	-
Critical Hdwy	-	-	4.22	-	6.52	6.34
Critical Hdwy Stg 1	-	-	-	-	5.52	-
Critical Hdwy Stg 2	-	-	-	-	5.52	-
Follow-up Hdwy	-	-	2.308	-	3.608	3.426
Pot Cap-1 Maneuver	-	-	1242	-	269	749
Stage 1	-	-	-	-	760	-
Stage 2	-	-	-	-	469	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1242	-	211	749
Mov Cap-2 Maneuver	-	-	-	-	211	-
Stage 1	-	-	-	-	760	-
Stage 2	-	-	-	-	368	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.1	12.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	615	-	-	1242	-
HCM Lane V/C Ratio	0.262	-	-	0.185	-
HCM Control Delay (s)	12.9	-	-	8.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1	-	-	0.7	-

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	139	2	121	140	7	1	1	83	7	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	153	2	133	154	8	1	1	91	8	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	162	0	0	155	0	0	578	581	154	624	579	158
Stage 1	-	-	-	-	-	-	154	154	-	424	424	-
Stage 2	-	-	-	-	-	-	424	427	-	200	155	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1429	-	-	1438	-	-	430	428	897	401	429	893
Stage 1	-	-	-	-	-	-	853	774	-	612	590	-
Stage 2	-	-	-	-	-	-	612	589	-	806	773	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1429	-	-	1438	-	-	396	384	897	331	385	893
Mov Cap-2 Maneuver	-	-	-	-	-	-	396	384	-	331	385	-
Stage 1	-	-	-	-	-	-	853	774	-	612	530	-
Stage 2	-	-	-	-	-	-	549	529	-	723	773	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	3.5	9.6	15.3
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	870	1429	-	-	1438	-	-	359
HCM Lane V/C Ratio	0.107	-	-	-	0.092	-	-	0.024
HCM Control Delay (s)	9.6	0	-	-	7.8	0	-	15.3
HCM Lane LOS	A	A	-	-	A	A	-	C
HCM 95th %tile Q(veh)	0.4	0	-	-	0.3	-	-	0.1

Intersection	
Int Delay, s/veh	3.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	3	133	254	3	108	286
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	33	6	9	0	9	6
Mvmt Flow	3	153	292	3	124	329

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	871	294	0	0	295	0
Stage 1	294	-	-	-	-	-
Stage 2	577	-	-	-	-	-
Critical Hdwy	6.73	6.26	-	-	4.19	-
Critical Hdwy Stg 1	5.73	-	-	-	-	-
Critical Hdwy Stg 2	5.73	-	-	-	-	-
Follow-up Hdwy	3.797	3.354	-	-	2.281	-
Pot Cap-1 Maneuver	284	736	-	-	1227	-
Stage 1	691	-	-	-	-	-
Stage 2	505	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	249	736	-	-	1227	-
Mov Cap-2 Maneuver	249	-	-	-	-	-
Stage 1	691	-	-	-	-	-
Stage 2	442	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.5	0	2.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	706	1227	-
HCM Lane V/C Ratio	-	-	0.221	0.101	-
HCM Control Delay (s)	-	-	11.5	8.3	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.8	0.3	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SEL	SER
Vol, veh/h	3	126	125	6	9	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	9	8	17	25	0
Mvmt Flow	4	150	149	7	11	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	156	0	-	0	309	152
Stage 1	-	-	-	-	152	-
Stage 2	-	-	-	-	157	-
Critical Hdwy	4.1	-	-	-	6.65	6.2
Critical Hdwy Stg 1	-	-	-	-	5.65	-
Critical Hdwy Stg 2	-	-	-	-	5.65	-
Follow-up Hdwy	2.2	-	-	-	3.725	3.3
Pot Cap-1 Maneuver	1436	-	-	-	638	900
Stage 1	-	-	-	-	823	-
Stage 2	-	-	-	-	818	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1436	-	-	-	636	900
Mov Cap-2 Maneuver	-	-	-	-	636	-
Stage 1	-	-	-	-	823	-
Stage 2	-	-	-	-	816	-

Approach	EB	WB	SE
HCM Control Delay, s	0.2	0	10.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	1436	-	-	-	636
HCM Lane V/C Ratio	0.002	-	-	-	0.017
HCM Control Delay (s)	7.5	0	-	-	10.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	265	1671	992	27	10	194
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	350	-	-	-	0	200
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	5	7	19	0	4
Mvmt Flow	288	1816	1078	29	11	211

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1108	0	-	0	2577	554
Stage 1	-	-	-	-	1093	-
Stage 2	-	-	-	-	1484	-
Critical Hdwy	4.14	-	-	-	6.8	6.98
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.22	-	-	-	3.5	3.34
Pot Cap-1 Maneuver	626	-	-	-	22	471
Stage 1	-	-	-	-	287	-
Stage 2	-	-	-	-	178	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	626	-	-	-	12	471
Mov Cap-2 Maneuver	-	-	-	-	70	-
Stage 1	-	-	-	-	287	-
Stage 2	-	-	-	-	96	-

Approach	EB	WB	SB
HCM Control Delay, s	2.1	0	21
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	626	-	-	-	70	471
HCM Lane V/C Ratio	0.46	-	-	-	0.155	0.448
HCM Control Delay (s)	15.6	-	-	-	65.7	18.7
HCM Lane LOS	C	-	-	-	F	C
HCM 95th %tile Q(veh)	2.4	-	-	-	0.5	2.3

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	1925	8	14	1172	3	9
Conflicting Peds, #/hr	0	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	175	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	5	0	7	6	0	0
Mvmt Flow	2115	9	15	1288	3	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2125	0	2796	1063
Stage 1	-	-	-	-	2121	-
Stage 2	-	-	-	-	675	-
Critical Hdwy	-	-	4.24	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.27	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	236	-	15	223
Stage 1	-	-	-	-	80	-
Stage 2	-	-	-	-	473	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	236	-	14	223
Mov Cap-2 Maneuver	-	-	-	-	65	-
Stage 1	-	-	-	-	80	-
Stage 2	-	-	-	-	443	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	33.6
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	139	-	-	236	-
HCM Lane V/C Ratio	0.095	-	-	0.065	-
HCM Control Delay (s)	33.6	-	-	21.3	-
HCM Lane LOS	D	-	-	C	-
HCM 95th %tile Q(veh)	0.3	-	-	0.2	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	12	1906	260	32	1279	6	222	1	65	7	1	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.95	0.95			1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	0.99			0.97	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.93			0.89	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.97			0.99	
Satd. Flow (prot)	1671	3471	1520	1752	3404		1665	1561			1626	
Flt Permitted	0.13	1.00	1.00	0.09	1.00		0.95	0.97			0.93	
Satd. Flow (perm)	225	3471	1520	160	3404		1665	1561			1523	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	13	2028	277	34	1361	6	236	1	69	7	1	40
RTOR Reduction (vph)	0	0	111	0	0	0	0	35	0	0	37	0
Lane Group Flow (vph)	13	2028	166	34	1367	0	158	113	0	0	11	0
Confl. Peds. (#/hr)	1					1			6	6		
Confl. Bikes (#/hr)			2			1			2			8
Heavy Vehicles (%)	8%	4%	4%	3%	6%	0%	3%	100%	3%	0%	0%	0%
Turn Type	Perm	NA	Perm	Perm	NA		Split	NA		Perm	NA	
Protected Phases		4			8		2	2			6	
Permitted Phases	4		4	8						6		
Actuated Green, G (s)	46.1	46.1	46.1	46.1	46.1		12.1	12.1			6.5	
Effective Green, g (s)	46.1	46.1	46.1	46.1	46.1		12.1	12.1			6.5	
Actuated g/C Ratio	0.60	0.60	0.60	0.60	0.60		0.16	0.16			0.08	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	135	2086	913	96	2045		262	246			129	
v/s Ratio Prot		c0.58			0.40		c0.09	0.07				
v/s Ratio Perm	0.06		0.11	0.21							c0.01	
v/c Ratio	0.10	0.97	0.18	0.35	0.67		0.60	0.46			0.09	
Uniform Delay, d1	6.5	14.7	6.9	7.8	10.2		30.1	29.3			32.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.3	13.7	0.1	2.2	0.8		3.9	1.4			0.3	
Delay (s)	6.8	28.4	7.0	10.0	11.0		33.9	30.7			32.7	
Level of Service	A	C	A	A	B		C	C			C	
Approach Delay (s)		25.7			11.0			32.4			32.7	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	21.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	76.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	74.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	86	1834	1218	8	0	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	None
Storage Length	275	-	-	150	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	6	6	25	0	4
Mvmt Flow	93	1993	1324	9	0	55

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1324	0	-	0	2508	662
Stage 1	-	-	-	-	1324	-
Stage 2	-	-	-	-	1184	-
Critical Hdwy	4.12	-	-	-	6.8	6.98
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.21	-	-	-	3.5	3.34
Pot Cap-1 Maneuver	523	-	-	0	24	400
Stage 1	-	-	-	0	217	-
Stage 2	-	-	-	0	257	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	523	-	-	-	20	400
Mov Cap-2 Maneuver	-	-	-	-	107	-
Stage 1	-	-	-	-	217	-
Stage 2	-	-	-	-	211	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	15.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	SBLn1
Capacity (veh/h)	523	-	-	400
HCM Lane V/C Ratio	0.179	-	-	0.139
HCM Control Delay (s)	13.4	-	-	15.4
HCM Lane LOS	B	-	-	C
HCM 95th %tile Q(veh)	0.6	-	-	0.5

Intersection	
Int Delay, s/veh	15.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	32	1063	70	7	528	80	35	27	22	86	26	31
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	350	-	300	350	-	220	300	-	-	300	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	10	3	5	14	9	4	6	4	10	1	8	7
Mvmt Flow	34	1143	75	8	568	86	38	29	24	92	28	33

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	568	0	0	1143	0	0	1525	1795	572	1238	1795	284
Stage 1	-	-	-	-	-	-	1212	1212	-	583	583	-
Stage 2	-	-	-	-	-	-	313	583	-	655	1212	-
Critical Hdwy	4.3	-	-	4.38	-	-	7.62	6.58	7.1	7.52	6.66	7.04
Critical Hdwy Stg 1	-	-	-	-	-	-	6.62	5.58	-	6.52	5.66	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.62	5.58	-	6.52	5.66	-
Follow-up Hdwy	2.3	-	-	2.34	-	-	3.56	4.04	3.4	3.51	4.08	3.37
Pot Cap-1 Maneuver	947	-	-	543	-	-	78	78	444	133	75	698
Stage 1	-	-	-	-	-	-	187	249	-	468	482	-
Stage 2	-	-	-	-	-	-	661	492	-	424	241	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	947	-	-	543	-	-	50	74	444	~ 84	71	698
Mov Cap-2 Maneuver	-	-	-	-	-	-	50	74	-	~ 84	71	-
Stage 1	-	-	-	-	-	-	180	240	-	451	475	-
Stage 2	-	-	-	-	-	-	584	485	-	340	232	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.1	111.9	151
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	50	118	947	-	-	543	-	-	84	139
HCM Lane V/C Ratio	0.753	0.447	0.036	-	-	0.014	-	-	1.101	0.441
HCM Control Delay (s)	187.1	58.1	8.9	-	-	11.7	-	-	218	49.9
HCM Lane LOS	F	F	A	-	-	B	-	-	F	E
HCM 95th %tile Q(veh)	3.1	2	0.1	-	-	0	-	-	6.4	2

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	3.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	214	61	64	119	32	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	50	300	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	4	2	7	8	3	4
Mvmt Flow	252	72	75	140	38	88

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	252	0	543	252
Stage 1	-	-	-	-	252	-
Stage 2	-	-	-	-	291	-
Critical Hdwy	-	-	4.17	-	6.43	6.24
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.263	-	3.527	3.336
Pot Cap-1 Maneuver	-	-	1285	-	499	782
Stage 1	-	-	-	-	788	-
Stage 2	-	-	-	-	756	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1285	-	470	782
Mov Cap-2 Maneuver	-	-	-	-	470	-
Stage 1	-	-	-	-	788	-
Stage 2	-	-	-	-	712	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.8	11.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	652	-	-	1285	-
HCM Lane V/C Ratio	0.193	-	-	0.059	-
HCM Control Delay (s)	11.8	-	-	8	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.7	-	-	0.2	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	3	270	131	20	8	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	0	4	7	6	14	0
Mvmt Flow	3	310	151	23	9	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	174	0	-	0	479	162
Stage 1	-	-	-	-	162	-
Stage 2	-	-	-	-	317	-
Critical Hdwy	4.1	-	-	-	6.54	6.2
Critical Hdwy Stg 1	-	-	-	-	5.54	-
Critical Hdwy Stg 2	-	-	-	-	5.54	-
Follow-up Hdwy	2.2	-	-	-	3.626	3.3
Pot Cap-1 Maneuver	1415	-	-	-	524	888
Stage 1	-	-	-	-	839	-
Stage 2	-	-	-	-	712	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1415	-	-	-	522	888
Mov Cap-2 Maneuver	-	-	-	-	522	-
Stage 1	-	-	-	-	839	-
Stage 2	-	-	-	-	710	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	11.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1415	-	-	-	569
HCM Lane V/C Ratio	0.002	-	-	-	0.02
HCM Control Delay (s)	7.5	0	-	-	11.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	44	2	202	88	1	137
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	5	0	5	4	0	11
Mvmt Flow	52	2	238	104	1	161

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	453	289	0	0	341	0
Stage 1	289	-	-	-	-	-
Stage 2	164	-	-	-	-	-
Critical Hdwy	6.45	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	559	755	-	-	1229	-
Stage 1	753	-	-	-	-	-
Stage 2	858	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	558	755	-	-	1229	-
Mov Cap-2 Maneuver	558	-	-	-	-	-
Stage 1	753	-	-	-	-	-
Stage 2	857	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.1	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	564	1229	-
HCM Lane V/C Ratio	-	-	0.096	0.001	-
HCM Control Delay (s)	-	-	12.1	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Intersection	
Int Delay, s/veh	4.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	60	6	12	47	17	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	14	0	9	11	0	0
Mvmt Flow	76	8	15	59	22	18

Major/Minor	Major2		Major1		Minor2	
Conflicting Flow All	75	-	0	0	45	231
Stage 1	-	-	-	-	0	156
Stage 2	-	-	-	-	45	75
Critical Hdwy	4.24	-	-	-	6.4	6.5
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	5.4	5.5
Follow-up Hdwy	2.326	-	-	-	3.5	4
Pot Cap-1 Maneuver	1451	-	-	-	970	672
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	983	836
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1451	-	-	-	919	0
Mov Cap-2 Maneuver	-	-	-	-	919	0
Stage 1	-	-	-	-	-	0
Stage 2	-	-	-	-	983	0

Approach	WB	NB	SB
HCM Control Delay, s	6.9	0	9
HCM LOS			A

Minor Lane/Major Mvmt	NBT	NBR	WBL	WBR	SBLn1
Capacity (veh/h)	-	-	1451	-	919
HCM Lane V/C Ratio	-	-	0.052	-	0.023
HCM Control Delay (s)	-	-	7.6	-	9
HCM Lane LOS	-	-	A	-	A
HCM 95th %tile Q(veh)	-	-	0.2	-	0.1

Intersection	
Int Delay, s/veh	7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	14	41	28	37	46	0	26	52	34	7	57	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	31	10	4	14	16	0	0	4	6	0	8	12
Mvmt Flow	15	44	30	40	49	0	28	56	37	8	61	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	49	0	0	74	0	0	254	218	59	264	233	49
Stage 1	-	-	-	-	-	-	89	89	-	129	129	-
Stage 2	-	-	-	-	-	-	165	129	-	135	104	-
Critical Hdwy	4.41	-	-	4.24	-	-	7.1	6.54	6.26	7.1	6.58	6.32
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.54	-	6.1	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.54	-	6.1	5.58	-
Follow-up Hdwy	2.479	-	-	2.326	-	-	3.5	4.036	3.354	3.5	4.072	3.408
Pot Cap-1 Maneuver	1391	-	-	1453	-	-	703	677	996	693	657	992
Stage 1	-	-	-	-	-	-	923	817	-	880	778	-
Stage 2	-	-	-	-	-	-	842	786	-	873	798	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1391	-	-	1453	-	-	626	651	996	606	632	992
Mov Cap-2 Maneuver	-	-	-	-	-	-	626	651	-	606	632	-
Stage 1	-	-	-	-	-	-	913	808	-	870	756	-
Stage 2	-	-	-	-	-	-	745	764	-	774	789	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	3.4	11	11.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	720	1391	-	-	1453	-	-	659
HCM Lane V/C Ratio	0.167	0.011	-	-	0.027	-	-	0.119
HCM Control Delay (s)	11	7.6	0	-	7.5	0	-	11.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.6	0	-	-	0.1	-	-	0.4

Intersection	
Int Delay, s/veh	2.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	140	19	40	113	11	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	9	6	11	11	20	20
Mvmt Flow	165	22	47	133	13	65

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	187	0	403	176
Stage 1	-	-	-	-	176	-
Stage 2	-	-	-	-	227	-
Critical Hdwy	-	-	4.21	-	6.6	6.4
Critical Hdwy Stg 1	-	-	-	-	5.6	-
Critical Hdwy Stg 2	-	-	-	-	5.6	-
Follow-up Hdwy	-	-	2.299	-	3.68	3.48
Pot Cap-1 Maneuver	-	-	1335	-	570	823
Stage 1	-	-	-	-	813	-
Stage 2	-	-	-	-	770	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1335	-	548	823
Mov Cap-2 Maneuver	-	-	-	-	548	-
Stage 1	-	-	-	-	813	-
Stage 2	-	-	-	-	741	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2	10.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	759	-	-	1335	-
HCM Lane V/C Ratio	0.102	-	-	0.035	-
HCM Control Delay (s)	10.3	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	196	16	24	177	3	30
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Yield	-	None	-	None
Storage Length	-	50	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	12	13	4	9	0	11
Mvmt Flow	206	17	25	186	3	32

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	206	0	443	207
Stage 1	-	-	-	-	206	-
Stage 2	-	-	-	-	237	-
Critical Hdwy	-	-	4.14	-	6.4	6.31
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.236	-	3.5	3.399
Pot Cap-1 Maneuver	-	-	1353	-	576	811
Stage 1	-	-	-	-	833	-
Stage 2	-	-	-	-	807	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1352	-	563	810
Mov Cap-2 Maneuver	-	-	-	-	563	-
Stage 1	-	-	-	-	833	-
Stage 2	-	-	-	-	789	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	9.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	779	-	-	1352	-
HCM Lane V/C Ratio	0.045	-	-	0.019	-
HCM Control Delay (s)	9.8	-	-	7.7	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	4	121	4	2	2	79	351	10	5	363	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	-	-	-	-	300	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	2	0	50	0	3	6	0	0	4	0
Mvmt Flow	1	4	129	4	2	2	84	373	11	5	386	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	941	938	386	1004	938	373	386	0	0	373	0	0
Stage 1	397	397	-	541	541	-	-	-	-	-	-	-
Stage 2	544	541	-	463	397	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.22	7.1	7	6.2	4.13	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	6	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.318	3.5	4.45	3.3	2.227	-	-	2.2	-	-
Pot Cap-1 Maneuver	245	266	662	222	221	678	1167	-	-	1197	-	-
Stage 1	633	607	-	529	450	-	-	-	-	-	-	-
Stage 2	527	524	-	583	528	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	228	246	662	166	204	678	1167	-	-	1197	-	-
Mov Cap-2 Maneuver	228	246	-	166	204	-	-	-	-	-	-	-
Stage 1	587	604	-	491	418	-	-	-	-	-	-	-
Stage 2	485	486	-	464	526	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.4	22.3	1.5	0.1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1167	-	-	619	217	1197	-	-
HCM Lane V/C Ratio	0.072	-	-	0.217	0.039	0.004	-	-
HCM Control Delay (s)	8.3	-	-	12.4	22.3	8	-	-
HCM Lane LOS	A	-	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.8	0.1	0	-	-

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	79	51	40	31	15	64
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	7	7	0
Mvmt Flow	88	57	44	34	17	71

Major/Minor	Major1		Minor1		Major2	
Conflicting Flow All	71	0	336	57	57	-
Stage 1	-	-	232	-	-	-
Stage 2	-	-	104	-	-	-
Critical Hdwy	-	-	6.5	6.27	4.17	-
Critical Hdwy Stg 1	-	-	5.5	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	4	3.363	2.263	-
Pot Cap-1 Maneuver	-	-	588	995	1516	-
Stage 1	-	-	716	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-				-
Mov Cap-1 Maneuver	-	-	0	995	1516	-
Mov Cap-2 Maneuver	-	-	0	-	-	-
Stage 1	-	-	0	-	-	-
Stage 2	-	-	0	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s		8.9	1.4
HCM LOS		A	

Minor Lane/Major Mvmt	EBL	EBT	WBLn1	SBL	SBR
Capacity (veh/h)	-	-	995	1516	-
HCM Lane V/C Ratio	-	-	0.079	0.011	-
HCM Control Delay (s)	-	-	8.9	7.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Intersection	
Int Delay, s/veh	5.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	49	7	63	35	10	93
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	14	8	0	0	5
Mvmt Flow	52	7	67	37	11	99

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	60	0	227	56
Stage 1	-	-	-	-	56	-
Stage 2	-	-	-	-	171	-
Critical Hdwy	-	-	4.18	-	6.4	6.25
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.272	-	3.5	3.345
Pot Cap-1 Maneuver	-	-	1506	-	766	1002
Stage 1	-	-	-	-	972	-
Stage 2	-	-	-	-	864	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1506	-	732	1002
Mov Cap-2 Maneuver	-	-	-	-	732	-
Stage 1	-	-	-	-	972	-
Stage 2	-	-	-	-	825	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.8	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	967	-	-	1506	-
HCM Lane V/C Ratio	0.113	-	-	0.045	-
HCM Control Delay (s)	9.2	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

Intersection	
Int Delay, s/veh	3.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	77	14	117	117	41	98
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	7	8	5	5	0	9
Mvmt Flow	87	16	131	131	46	110

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	399	198	0	0	263	0
Stage 1	197	-	-	-	-	-
Stage 2	202	-	-	-	-	-
Critical Hdwy	6.47	6.28	-	-	4.1	-
Critical Hdwy Stg 1	5.47	-	-	-	-	-
Critical Hdwy Stg 2	5.47	-	-	-	-	-
Follow-up Hdwy	3.563	3.372	-	-	2.2	-
Pot Cap-1 Maneuver	597	828	-	-	1313	-
Stage 1	824	-	-	-	-	-
Stage 2	820	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	574	827	-	-	1312	-
Mov Cap-2 Maneuver	574	-	-	-	-	-
Stage 1	824	-	-	-	-	-
Stage 2	789	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.2	0	2.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	602	1312	-
HCM Lane V/C Ratio	-	-	0.17	0.035	-
HCM Control Delay (s)	-	-	12.2	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0.1	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	15	89	50	0	2	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	7	7	6	0	0	0
Mvmt Flow	20	119	67	0	3	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	67	0	-	0	226	67
Stage 1	-	-	-	-	67	-
Stage 2	-	-	-	-	159	-
Critical Hdwy	4.17	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.263	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1503	-	-	-	767	1002
Stage 1	-	-	-	-	961	-
Stage 2	-	-	-	-	875	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1503	-	-	-	756	1002
Mov Cap-2 Maneuver	-	-	-	-	756	-
Stage 1	-	-	-	-	961	-
Stage 2	-	-	-	-	863	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1503	-	-	-	927
HCM Lane V/C Ratio	0.013	-	-	-	0.012
HCM Control Delay (s)	7.4	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection							
Int Delay, s/veh	2.2						

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	95	39	11	35	19	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	6	6	10	3	17	14
Mvmt Flow	112	46	13	41	22	28

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	158	0	202	135
Stage 1	-	-	-	-	135	-
Stage 2	-	-	-	-	67	-
Critical Hdwy	-	-	4.2	-	6.57	6.34
Critical Hdwy Stg 1	-	-	-	-	5.57	-
Critical Hdwy Stg 2	-	-	-	-	5.57	-
Follow-up Hdwy	-	-	2.29	-	3.653	3.426
Pot Cap-1 Maneuver	-	-	1374	-	754	883
Stage 1	-	-	-	-	856	-
Stage 2	-	-	-	-	919	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1374	-	746	883
Mov Cap-2 Maneuver	-	-	-	-	746	-
Stage 1	-	-	-	-	856	-
Stage 2	-	-	-	-	910	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.8	9.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	817	-	-	1374	-
HCM Lane V/C Ratio	0.062	-	-	0.009	-
HCM Control Delay (s)	9.7	-	-	7.6	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	1	47	24	1	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	4	14	0	0	0
Mvmt Flow	1	55	28	1	0	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	29	0	-	0	87	29
Stage 1	-	-	-	-	29	-
Stage 2	-	-	-	-	58	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1597	-	-	-	919	1052
Stage 1	-	-	-	-	999	-
Stage 2	-	-	-	-	970	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1597	-	-	-	918	1052
Mov Cap-2 Maneuver	-	-	-	-	918	-
Stage 1	-	-	-	-	999	-
Stage 2	-	-	-	-	969	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	8.4
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1597	-	-	-	1052
HCM Lane V/C Ratio	0.001	-	-	-	0.003
HCM Control Delay (s)	7.3	0	-	-	8.4
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	2	0	2	0	36	1	79	1	49	82	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	6	0	7	0	6	1	0
Mvmt Flow	1	2	0	2	0	41	1	91	1	56	94	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	321	301	95	303	302	91	95	0	0	92	0	0
Stage 1	207	207	-	94	94	-	-	-	-	-	-	-
Stage 2	114	94	-	209	208	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.26	4.1	-	-	4.16	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.354	2.2	-	-	2.254	-	-
Pot Cap-1 Maneuver	636	615	967	653	614	956	1512	-	-	1478	-	-
Stage 1	800	734	-	918	821	-	-	-	-	-	-	-
Stage 2	896	821	-	798	734	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	589	590	967	631	589	956	1512	-	-	1478	-	-
Mov Cap-2 Maneuver	589	590	-	631	589	-	-	-	-	-	-	-
Stage 1	799	705	-	917	820	-	-	-	-	-	-	-
Stage 2	856	820	-	764	705	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.1	9.1	0.1	2.8
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1512	-	-	590	931	1478	-	-
HCM Lane V/C Ratio	0.001	-	-	0.006	0.047	0.038	-	-
HCM Control Delay (s)	7.4	0	-	11.1	9.1	7.5	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	24	43	11	0	11	15	9	34	1	17	50	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	14	0	0	0	0	0	0	12	0	12	13	5
Mvmt Flow	27	48	12	0	12	17	10	38	1	19	56	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	29	0	0	61	0	0	169	137	54	149	136	21
Stage 1	-	-	-	-	-	-	108	108	-	21	21	-
Stage 2	-	-	-	-	-	-	61	29	-	128	115	-
Critical Hdwy	4.24	-	-	4.1	-	-	7.1	6.62	6.2	7.22	6.63	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.62	-	6.22	5.63	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.62	-	6.22	5.63	-
Follow-up Hdwy	2.326	-	-	2.2	-	-	3.5	4.108	3.3	3.608	4.117	3.345
Pot Cap-1 Maneuver	1510	-	-	1555	-	-	799	736	1019	797	735	1048
Stage 1	-	-	-	-	-	-	902	787	-	972	856	-
Stage 2	-	-	-	-	-	-	955	851	-	852	780	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1510	-	-	1555	-	-	723	722	1019	753	721	1048
Mov Cap-2 Maneuver	-	-	-	-	-	-	723	722	-	753	721	-
Stage 1	-	-	-	-	-	-	885	772	-	954	856	-
Stage 2	-	-	-	-	-	-	871	851	-	794	765	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.3	0	10.3	10.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	727	1510	-	-	1555	-	-	788
HCM Lane V/C Ratio	0.068	0.018	-	-	-	-	-	0.127
HCM Control Delay (s)	10.3	7.4	0	-	0	-	-	10.2
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	0.4

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	77	529	397	3	3	56
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	170	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	6	6	6	33	0	8
Mvmt Flow	87	594	446	3	3	63

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	449	0	-	0	1215	448
Stage 1	-	-	-	-	448	-
Stage 2	-	-	-	-	767	-
Critical Hdwy	4.16	-	-	-	6.4	6.28
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.254	-	-	-	3.5	3.372
Pot Cap-1 Maneuver	1091	-	-	-	202	598
Stage 1	-	-	-	-	648	-
Stage 2	-	-	-	-	462	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1091	-	-	-	186	598
Mov Cap-2 Maneuver	-	-	-	-	186	-
Stage 1	-	-	-	-	648	-
Stage 2	-	-	-	-	425	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	12.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1091	-	-	-	537
HCM Lane V/C Ratio	0.079	-	-	-	0.123
HCM Control Delay (s)	8.6	-	-	-	12.6
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.4

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	42	127	13	11	90	14	5	59	14	10	36	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	4	0	10	6	0	20	7	0	11	9	0
Mvmt Flow	46	138	14	12	98	15	5	64	15	11	39	38

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	113	0	0	152	0	0	404	373	145	405	372	105
Stage 1	-	-	-	-	-	-	236	236	-	129	129	-
Stage 2	-	-	-	-	-	-	168	137	-	276	243	-
Critical Hdwy	4.13	-	-	4.2	-	-	7.3	6.57	6.2	7.21	6.59	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.3	5.57	-	6.21	5.59	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.3	5.57	-	6.21	5.59	-
Follow-up Hdwy	2.227	-	-	2.29	-	-	3.68	4.063	3.3	3.599	4.081	3.3
Pot Cap-1 Maneuver	1470	-	-	1381	-	-	526	550	908	541	547	955
Stage 1	-	-	-	-	-	-	728	701	-	853	776	-
Stage 2	-	-	-	-	-	-	793	774	-	711	692	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1470	-	-	1381	-	-	461	527	908	467	524	955
Mov Cap-2 Maneuver	-	-	-	-	-	-	461	527	-	467	524	-
Stage 1	-	-	-	-	-	-	703	677	-	824	769	-
Stage 2	-	-	-	-	-	-	716	767	-	611	668	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.7	0.7	12.5	11.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	564	1470	-	-	1381	-	-	639
HCM Lane V/C Ratio	0.15	0.031	-	-	0.009	-	-	0.138
HCM Control Delay (s)	12.5	7.5	0	-	7.6	0	-	11.5
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0.1	-	-	0	-	-	0.5

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Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	2	386	30	68	243	19	16	10	74	11	6	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	280	-	270	150	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	2	0	3	4	0	7	11	6	0	0	0
Mvmt Flow	2	439	34	77	276	22	18	11	84	12	7	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	298	0	0	439	0	0	888	895	439	932	884	287
Stage 1	-	-	-	-	-	-	443	443	-	441	441	-
Stage 2	-	-	-	-	-	-	445	452	-	491	443	-
Critical Hdwy	4.1	-	-	4.13	-	-	7.17	6.61	6.26	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.17	5.61	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.17	5.61	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.227	-	-	3.563	4.099	3.354	3.5	4	3.3
Pot Cap-1 Maneuver	1275	-	-	1116	-	-	259	271	610	249	286	757
Stage 1	-	-	-	-	-	-	584	561	-	599	580	-
Stage 2	-	-	-	-	-	-	583	556	-	563	579	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1275	-	-	1116	-	-	240	252	610	196	266	757
Mov Cap-2 Maneuver	-	-	-	-	-	-	240	252	-	196	266	-
Stage 1	-	-	-	-	-	-	583	560	-	598	540	-
Stage 2	-	-	-	-	-	-	536	518	-	475	578	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.7	16	23.3
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	439	1275	-	-	1116	-	-	216
HCM Lane V/C Ratio	0.259	0.002	-	-	0.069	-	-	0.089
HCM Control Delay (s)	16	7.8	-	-	8.5	-	-	23.3
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	1	0	-	-	0.2	-	-	0.3

Intersection	
Int Delay, s/veh	7.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	30	60	13	77	42	0	13	26	37	0	40	66
Conflicting Peds, #/hr	0	0	1	1	0	0	11	0	0	0	0	11
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	8	7	2	8	7	2	2	12	11	2	5	2
Mvmt Flow	41	82	18	105	58	0	18	36	51	0	55	90

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	69	0	0	111	0	0	536	463	103	506	472	70
Stage 1	-	-	-	-	-	-	184	184	-	279	279	-
Stage 2	-	-	-	-	-	-	352	279	-	227	193	-
Critical Hdwy	4.18	-	-	4.18	-	-	7.12	6.62	6.31	7.12	6.55	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.62	-	6.12	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.62	-	6.12	5.55	-
Follow-up Hdwy	2.272	-	-	2.272	-	-	3.518	4.108	3.399	3.518	4.045	3.318
Pot Cap-1 Maneuver	1495	-	-	1442	-	-	455	482	928	477	486	993
Stage 1	-	-	-	-	-	-	818	729	-	728	674	-
Stage 2	-	-	-	-	-	-	665	662	-	776	735	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1494	-	-	1441	-	-	341	425	919	385	429	983
Mov Cap-2 Maneuver	-	-	-	-	-	-	341	425	-	385	429	-
Stage 1	-	-	-	-	-	-	787	701	-	700	618	-
Stage 2	-	-	-	-	-	-	509	607	-	675	707	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.2	5	13.2	12
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	545	1494	-	-	1441	-	-	661
HCM Lane V/C Ratio	0.191	0.028	-	-	0.073	-	-	0.22
HCM Control Delay (s)	13.2	7.5	0	-	7.7	0	-	12
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.7	0.1	-	-	0.2	-	-	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	1063	70	7	528	80	35	27	22	86	26	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.93		1.00	0.92	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1641	3505	1538	1583	3312	1553	1703	1659		1787	1625	
Flt Permitted	0.44	1.00	1.00	0.26	1.00	1.00	0.72	1.00		0.72	1.00	
Satd. Flow (perm)	758	3505	1538	439	3312	1553	1286	1659		1359	1625	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	34	1143	75	8	568	86	38	29	24	92	28	33
RTOR Reduction (vph)	0	0	38	0	0	43	0	17	0	0	25	0
Lane Group Flow (vph)	34	1143	37	8	568	43	38	36	0	92	36	0
Heavy Vehicles (%)	10%	3%	5%	14%	9%	4%	6%	4%	10%	1%	8%	7%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	15.2	15.2	15.2	15.2	15.2	15.2	7.5	7.5		7.5	7.5	
Effective Green, g (s)	15.2	15.2	15.2	15.2	15.2	15.2	7.5	7.5		7.5	7.5	
Actuated g/C Ratio	0.50	0.50	0.50	0.50	0.50	0.50	0.24	0.24		0.24	0.24	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	375	1735	761	217	1639	768	314	405		332	396	
v/s Ratio Prot		c0.33			0.17			0.02			0.02	
v/s Ratio Perm	0.04		0.02	0.02		0.03	0.03			c0.07		
v/c Ratio	0.09	0.66	0.05	0.04	0.35	0.06	0.12	0.09		0.28	0.09	
Uniform Delay, d1	4.1	5.8	4.0	4.0	4.7	4.0	9.0	9.0		9.4	9.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.1	0.9	0.0	0.1	0.1	0.0	0.2	0.1		0.5	0.1	
Delay (s)	4.2	6.7	4.0	4.1	4.9	4.1	9.2	9.1		9.9	9.1	
Level of Service	A	A	A	A	A	A	A	A		A	A	
Approach Delay (s)		6.5			4.7			9.1			9.5	
Approach LOS		A			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	6.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	30.7	Sum of lost time (s)	8.0
Intersection Capacity Utilization	47.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	15.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	315	764	10	248	312	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	None
Storage Length	-	0	450	-	300	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	4	2	9	6	8	100
Mvmt Flow	354	858	11	279	351	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	354	0	655	354
Stage 1	-	-	-	-	354	-
Stage 2	-	-	-	-	301	-
Critical Hdwy	-	-	4.19	-	6.48	7.2
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.281	-	3.572	4.2
Pot Cap-1 Maneuver	-	0	1167	-	422	515
Stage 1	-	0	-	-	697	-
Stage 2	-	0	-	-	737	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	1167	-	418	515
Mov Cap-2 Maneuver	-	-	-	-	418	-
Stage 1	-	-	-	-	697	-
Stage 2	-	-	-	-	730	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	44.8
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	WBL	WBT
Capacity (veh/h)	418	515	-	1167	-
HCM Lane V/C Ratio	0.839	0.002	-	0.01	-
HCM Control Delay (s)	44.9	12	-	8.1	-
HCM Lane LOS	E	B	-	A	-
HCM 95th %tile Q(veh)	8	0	-	0	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	2	0	1	3	70	0	246	15	154	622	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	50	-	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	33	13	0	7	0	5	2	0
Mvmt Flow	1	2	0	1	3	80	0	280	17	175	707	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1348	1355	708	1347	1347	-	709	0	0	297	0	0
Stage 1	1058	1058	-	288	288	-	-	-	-	-	-	-
Stage 2	290	297	-	1059	1059	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.83	-	4.1	-	-	4.15	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.83	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.83	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4.297	-	2.2	-	-	2.245	-	-
Pot Cap-1 Maneuver	129	151	438	129	131	0	899	-	-	1247	-	-
Stage 1	274	304	-	724	621	0	-	-	-	-	-	-
Stage 2	722	671	-	274	266	0	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	113	130	438	114	113	-	899	-	-	1247	-	-
Mov Cap-2 Maneuver	113	130	-	114	113	-	-	-	-	-	-	-
Stage 1	274	261	-	724	621	-	-	-	-	-	-	-
Stage 2	718	671	-	233	229	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	34.9	38.2	0	1.7
HCM LOS	D	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	899	-	-	124	113	-	1247	-	-
HCM Lane V/C Ratio	-	-	-	0.027	0.04	-	0.14	-	-
HCM Control Delay (s)	0	-	-	34.9	38.2	0	8.4	-	-
HCM Lane LOS	A	-	-	D	E	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	-	0.5	-	-

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	68	35	26	122	25	13	4	4	16	22	0
Conflicting Peds, #/hr	0	0	1	0	0	0	11	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	2	7	13	2	7	13	2	10	2	20	10	2
Mvmt Flow	0	93	48	36	167	34	18	5	5	22	30	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	201	0	0	152	0	0	399	401	128	389	407	185
Stage 1	-	-	-	-	-	-	128	128	-	255	255	-
Stage 2	-	-	-	-	-	-	271	273	-	134	152	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.6	6.22	7.3	6.6	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.6	-	6.3	5.6	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.6	-	6.3	5.6	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.09	3.318	3.68	4.09	3.318
Pot Cap-1 Maneuver	1371	-	-	1429	-	-	561	525	922	539	521	857
Stage 1	-	-	-	-	-	-	876	775	-	711	682	-
Stage 2	-	-	-	-	-	-	735	670	-	828	757	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1370	-	-	1429	-	-	519	506	914	520	502	856
Mov Cap-2 Maneuver	-	-	-	-	-	-	519	506	-	520	502	-
Stage 1	-	-	-	-	-	-	868	768	-	711	663	-
Stage 2	-	-	-	-	-	-	681	651	-	817	750	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.1	11.7	12.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	563	1370	-	-	1429	-	-	509
HCM Lane V/C Ratio	0.051	-	-	-	0.025	-	-	0.102
HCM Control Delay (s)	11.7	0	-	-	7.6	0	-	12.9
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.3

Intersection	
Int Delay, s/veh	1.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	669	31	51	490	22	66
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	100	300	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	5	6	9	10	4	16
Mvmt Flow	719	33	55	527	24	71

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	719	0	1092	360
Stage 1	-	-	-	-	719	-
Stage 2	-	-	-	-	373	-
Critical Hdwy	-	-	4.28	-	6.88	7.22
Critical Hdwy Stg 1	-	-	-	-	5.88	-
Critical Hdwy Stg 2	-	-	-	-	5.88	-
Follow-up Hdwy	-	-	2.29	-	3.54	3.46
Pot Cap-1 Maneuver	-	-	833	-	206	598
Stage 1	-	-	-	-	438	-
Stage 2	-	-	-	-	661	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	833	-	192	598
Mov Cap-2 Maneuver	-	-	-	-	317	-
Stage 1	-	-	-	-	438	-
Stage 2	-	-	-	-	617	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	14.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	490	-	-	833	-
HCM Lane V/C Ratio	0.193	-	-	0.066	-
HCM Control Delay (s)	14.1	-	-	9.6	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.7	-	-	0.2	-

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	12	417	314	116	164	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	None
Storage Length	200	-	-	1	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	8	4	7	3	3	0
Mvmt Flow	12	426	320	118	167	13

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	320	0	-	0	770	320
Stage 1	-	-	-	-	320	-
Stage 2	-	-	-	-	450	-
Critical Hdwy	4.18	-	-	-	6.43	6.2
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.272	-	-	-	3.527	3.3
Pot Cap-1 Maneuver	1207	-	-	0	367	725
Stage 1	-	-	-	0	734	-
Stage 2	-	-	-	0	640	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	1207	-	-	-	363	725
Mov Cap-2 Maneuver	-	-	-	-	363	-
Stage 1	-	-	-	-	734	-
Stage 2	-	-	-	-	634	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	23
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	SBLn1
Capacity (veh/h)	1207	-	-	377
HCM Lane V/C Ratio	0.01	-	-	0.479
HCM Control Delay (s)	8	-	-	23
HCM Lane LOS	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	2.5

Intersection	
Int Delay, s/veh	4.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	20	142	280	21	283	301
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	Yield	-	None
Storage Length	0	-	-	100	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	9	6	6	9	4	4
Mvmt Flow	21	148	292	22	295	314

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1195	292	0	0	292	0
Stage 1	292	-	-	-	-	-
Stage 2	903	-	-	-	-	-
Critical Hdwy	6.49	6.26	-	-	4.14	-
Critical Hdwy Stg 1	5.49	-	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-	-
Follow-up Hdwy	3.581	3.354	-	-	2.236	-
Pot Cap-1 Maneuver	199	738	-	-	1258	-
Stage 1	742	-	-	-	-	-
Stage 2	384	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	152	738	-	-	1258	-
Mov Cap-2 Maneuver	152	-	-	-	-	-
Stage 1	742	-	-	-	-	-
Stage 2	294	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.8	0	4.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	500	1258	-
HCM Lane V/C Ratio	-	-	0.338	0.234	-
HCM Control Delay (s)	-	-	15.8	8.7	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	1.5	0.9	-

Intersection	
Int Delay, s/veh	5.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	23	11	90	45	7	63
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Yield
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	12	25	11	12	25	12
Mvmt Flow	27	13	106	53	8	74

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	40	0	299	34
Stage 1	-	-	-	-	34	-
Stage 2	-	-	-	-	265	-
Critical Hdwy	-	-	4.21	-	6.65	6.32
Critical Hdwy Stg 1	-	-	-	-	5.65	-
Critical Hdwy Stg 2	-	-	-	-	5.65	-
Follow-up Hdwy	-	-	2.299	-	3.725	3.408
Pot Cap-1 Maneuver	-	-	1514	-	647	1011
Stage 1	-	-	-	-	932	-
Stage 2	-	-	-	-	729	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1514	-	600	1011
Mov Cap-2 Maneuver	-	-	-	-	600	-
Stage 1	-	-	-	-	932	-
Stage 2	-	-	-	-	677	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1123	-	-	1514	-
HCM Lane V/C Ratio	0.073	-	-	0.07	-
HCM Control Delay (s)	8.5	-	-	7.6	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.2	-

Intersection	
Int Delay, s/veh	3.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	136	5	121	132	7	78
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	15	50	12	16	12	14
Mvmt Flow	170	6	151	165	9	98

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	176	0	641	173
Stage 1	-	-	-	-	173	-
Stage 2	-	-	-	-	468	-
Critical Hdwy	-	-	4.22	-	6.52	6.34
Critical Hdwy Stg 1	-	-	-	-	5.52	-
Critical Hdwy Stg 2	-	-	-	-	5.52	-
Follow-up Hdwy	-	-	2.308	-	3.608	3.426
Pot Cap-1 Maneuver	-	-	1342	-	424	840
Stage 1	-	-	-	-	834	-
Stage 2	-	-	-	-	610	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1342	-	371	840
Mov Cap-2 Maneuver	-	-	-	-	371	-
Stage 1	-	-	-	-	834	-
Stage 2	-	-	-	-	534	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.8	10.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	761	-	-	1342	-
HCM Lane V/C Ratio	0.14	-	-	0.113	-
HCM Control Delay (s)	10.5	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0.4	-

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	124	2	108	125	6	1	1	75	6	0	1
Conflicting Peds, #/hr	0	0	1	0	0	0	1	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	12	2	5	7	0	2	2	10	2	2	2
Mvmt Flow	0	136	2	119	137	7	1	1	82	7	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	144	0	0	139	0	0	517	519	138	558	517	142
Stage 1	-	-	-	-	-	-	138	138	-	378	378	-
Stage 2	-	-	-	-	-	-	379	381	-	180	139	-
Critical Hdwy	4.12	-	-	4.15	-	-	7.12	6.52	6.3	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.245	-	-	3.518	4.018	3.39	3.518	4.018	3.318
Pot Cap-1 Maneuver	1438	-	-	1426	-	-	469	461	889	440	462	906
Stage 1	-	-	-	-	-	-	865	782	-	644	615	-
Stage 2	-	-	-	-	-	-	643	613	-	822	782	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1437	-	-	1426	-	-	435	419	888	371	420	905
Mov Cap-2 Maneuver	-	-	-	-	-	-	435	419	-	371	420	-
Stage 1	-	-	-	-	-	-	864	781	-	644	559	-
Stage 2	-	-	-	-	-	-	583	557	-	745	781	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	3.5	9.6	14.1
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	864	1437	-	-	1426	-	-	405
HCM Lane V/C Ratio	0.098	-	-	-	0.083	-	-	0.019
HCM Control Delay (s)	9.6	0	-	-	7.8	0	-	14.1
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0.3	-	-	0.1

Intersection	
Int Delay, s/veh	3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	3	115	220	3	94	248
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	33	6	9	0	9	6
Mvmt Flow	3	132	253	3	108	285

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	756	255	0	0	256	0
Stage 1	255	-	-	-	-	-
Stage 2	501	-	-	-	-	-
Critical Hdwy	6.73	6.26	-	-	4.19	-
Critical Hdwy Stg 1	5.73	-	-	-	-	-
Critical Hdwy Stg 2	5.73	-	-	-	-	-
Follow-up Hdwy	3.797	3.354	-	-	2.281	-
Pot Cap-1 Maneuver	335	774	-	-	1269	-
Stage 1	721	-	-	-	-	-
Stage 2	550	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	301	774	-	-	1269	-
Mov Cap-2 Maneuver	301	-	-	-	-	-
Stage 1	721	-	-	-	-	-
Stage 2	494	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	2.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	744	1269	-
HCM Lane V/C Ratio	-	-	0.182	0.085	-
HCM Control Delay (s)	-	-	10.9	8.1	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.7	0.3	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SEL	SER
Vol, veh/h	3	107	106	5	7	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	9	8	17	25	0
Mvmt Flow	4	127	126	6	8	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	132	0	-	0	264	129
Stage 1	-	-	-	-	129	-
Stage 2	-	-	-	-	135	-
Critical Hdwy	4.1	-	-	-	6.65	6.2
Critical Hdwy Stg 1	-	-	-	-	5.65	-
Critical Hdwy Stg 2	-	-	-	-	5.65	-
Follow-up Hdwy	2.2	-	-	-	3.725	3.3
Pot Cap-1 Maneuver	1466	-	-	-	678	926
Stage 1	-	-	-	-	843	-
Stage 2	-	-	-	-	838	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1466	-	-	-	676	926
Mov Cap-2 Maneuver	-	-	-	-	676	-
Stage 1	-	-	-	-	843	-
Stage 2	-	-	-	-	835	-

Approach	EB	WB	SE
HCM Control Delay, s	0.2	0	10.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	1466	-	-	-	676
HCM Lane V/C Ratio	0.002	-	-	-	0.012
HCM Control Delay (s)	7.5	0	-	-	10.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	250	1572	934	25	10	182
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	350	-	-	-	0	200
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	5	7	19	0	4
Mvmt Flow	272	1709	1015	27	11	198

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1042	0	-	0	2427	521
Stage 1	-	-	-	-	1029	-
Stage 2	-	-	-	-	1398	-
Critical Hdwy	4.14	-	-	-	6.8	6.98
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.22	-	-	-	3.5	3.34
Pot Cap-1 Maneuver	663	-	-	-	27	495
Stage 1	-	-	-	-	310	-
Stage 2	-	-	-	-	198	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	663	-	-	-	16	495
Mov Cap-2 Maneuver	-	-	-	-	83	-
Stage 1	-	-	-	-	310	-
Stage 2	-	-	-	-	117	-

Approach	EB	WB	SB
HCM Control Delay, s	1.9	0	19
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	663	-	-	-	83	495
HCM Lane V/C Ratio	0.41	-	-	-	0.131	0.4
HCM Control Delay (s)	14.1	-	-	-	54.8	17
HCM Lane LOS	B	-	-	-	F	C
HCM 95th %tile Q(veh)	2	-	-	-	0.4	1.9

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	1812	8	13	1103	3	9
Conflicting Peds, #/hr	0	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	175	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	5	0	7	6	0	0
Mvmt Flow	1991	9	14	1212	3	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2001	0	2632	1001
Stage 1	-	-	-	-	1997	-
Stage 2	-	-	-	-	635	-
Critical Hdwy	-	-	4.24	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.27	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	264	-	20	245
Stage 1	-	-	-	-	93	-
Stage 2	-	-	-	-	496	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	264	-	19	245
Mov Cap-2 Maneuver	-	-	-	-	75	-
Stage 1	-	-	-	-	93	-
Stage 2	-	-	-	-	470	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	30.2
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	156	-	-	264	-
HCM Lane V/C Ratio	0.085	-	-	0.054	-
HCM Control Delay (s)	30.2	-	-	19.4	-
HCM Lane LOS	D	-	-	C	-
HCM 95th %tile Q(veh)	0.3	-	-	0.2	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	12	1794	245	30	1204	6	209	1	61	7	1	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.95	0.95			1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	0.99			0.97	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.93			0.89	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.97			0.99	
Satd. Flow (prot)	1671	3471	1520	1752	3404		1665	1560			1628	
Flt Permitted	0.15	1.00	1.00	0.09	1.00		0.95	0.97			0.93	
Satd. Flow (perm)	261	3471	1520	160	3404		1665	1560			1524	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	13	1909	261	32	1281	6	222	1	65	7	1	38
RTOR Reduction (vph)	0	0	104	0	0	0	0	36	0	0	35	0
Lane Group Flow (vph)	13	1909	157	32	1287	0	149	103	0	0	11	0
Confl. Peds. (#/hr)	1					1			6	6		
Confl. Bikes (#/hr)			2			1			2			8
Heavy Vehicles (%)	8%	4%	4%	3%	6%	0%	3%	100%	3%	0%	0%	0%
Turn Type	Perm	NA	Perm	Perm	NA		Split	NA		Perm	NA	
Protected Phases		4			8		2	2			6	
Permitted Phases	4		4	8						6		
Actuated Green, G (s)	46.1	46.1	46.1	46.1	46.1		11.8	11.8			6.5	
Effective Green, g (s)	46.1	46.1	46.1	46.1	46.1		11.8	11.8			6.5	
Actuated g/C Ratio	0.60	0.60	0.60	0.60	0.60		0.15	0.15			0.09	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	157	2094	917	96	2053		257	240			129	
v/s Ratio Prot		c0.55			0.38		c0.09	0.07				
v/s Ratio Perm	0.05		0.10	0.20							c0.01	
v/c Ratio	0.08	0.91	0.17	0.33	0.63		0.58	0.43			0.09	
Uniform Delay, d1	6.3	13.4	6.7	7.5	9.7		30.0	29.2			32.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.2	6.5	0.1	2.0	0.6		3.2	1.2			0.3	
Delay (s)	6.6	19.9	6.8	9.6	10.3		33.2	30.5			32.5	
Level of Service	A	B	A	A	B		C	C			C	
Approach Delay (s)		18.2			10.2			31.9			32.5	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	16.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	76.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	70.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	81	1726	1146	8	0	48
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	None
Storage Length	275	-	-	150	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	6	6	25	0	4
Mvmt Flow	88	1876	1246	9	0	52

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1246	0	-	0	2360	623
Stage 1	-	-	-	-	1246	-
Stage 2	-	-	-	-	1114	-
Critical Hdwy	4.12	-	-	-	6.8	6.98
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.21	-	-	-	3.5	3.34
Pot Cap-1 Maneuver	560	-	-	0	30	424
Stage 1	-	-	-	0	238	-
Stage 2	-	-	-	0	280	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	560	-	-	-	25	424
Mov Cap-2 Maneuver	-	-	-	-	120	-
Stage 1	-	-	-	-	238	-
Stage 2	-	-	-	-	236	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	14.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	SBLn1
Capacity (veh/h)	560	-	-	424
HCM Lane V/C Ratio	0.157	-	-	0.123
HCM Control Delay (s)	12.6	-	-	14.7
HCM Lane LOS	B	-	-	B
HCM 95th %tile Q(veh)	0.6	-	-	0.4

Intersection	
Int Delay, s/veh	6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	28	923	60	7	458	70	31	23	20	74	22	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	350	-	300	350	-	220	300	-	-	300	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	10	3	5	14	9	4	6	4	10	1	8	7
Mvmt Flow	30	992	65	8	492	75	33	25	22	80	24	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	492	0	0	992	0	0	1326	1561	496	1077	1561	246
Stage 1	-	-	-	-	-	-	1053	1053	-	508	508	-
Stage 2	-	-	-	-	-	-	273	508	-	569	1053	-
Critical Hdwy	4.3	-	-	4.38	-	-	7.62	6.58	7.1	7.52	6.66	7.04
Critical Hdwy Stg 1	-	-	-	-	-	-	6.62	5.58	-	6.52	5.66	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.62	5.58	-	6.52	5.66	-
Follow-up Hdwy	2.3	-	-	2.34	-	-	3.56	4.04	3.4	3.51	4.08	3.37
Pot Cap-1 Maneuver	1014	-	-	624	-	-	110	109	499	175	105	739
Stage 1	-	-	-	-	-	-	235	297	-	518	522	-
Stage 2	-	-	-	-	-	-	698	532	-	477	289	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1014	-	-	624	-	-	84	104	499	133	101	739
Mov Cap-2 Maneuver	-	-	-	-	-	-	84	104	-	133	101	-
Stage 1	-	-	-	-	-	-	228	288	-	503	515	-
Stage 2	-	-	-	-	-	-	632	525	-	405	280	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.1	51.2	51.9
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	84	165	1014	-	-	624	-	-	133	193
HCM Lane V/C Ratio	0.397	0.28	0.03	-	-	0.012	-	-	0.598	0.273
HCM Control Delay (s)	73.6	35.1	8.7	-	-	10.8	-	-	66	30.5
HCM Lane LOS	F	E	A	-	-	B	-	-	F	D
HCM 95th %tile Q(veh)	1.6	1.1	0.1	-	-	0	-	-	3.1	1.1

Intersection	
Int Delay, s/veh	3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	181	52	55	101	27	64
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	50	300	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	4	2	7	8	3	4
Mvmt Flow	213	61	65	119	32	75

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	213	0	461	213
Stage 1	-	-	-	-	213	-
Stage 2	-	-	-	-	248	-
Critical Hdwy	-	-	4.17	-	6.43	6.24
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.263	-	3.527	3.336
Pot Cap-1 Maneuver	-	-	1328	-	557	822
Stage 1	-	-	-	-	820	-
Stage 2	-	-	-	-	791	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1328	-	530	822
Mov Cap-2 Maneuver	-	-	-	-	530	-
Stage 1	-	-	-	-	820	-
Stage 2	-	-	-	-	752	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.8	11
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	707	-	-	1328	-
HCM Lane V/C Ratio	0.151	-	-	0.049	-
HCM Control Delay (s)	11	-	-	7.9	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.5	-	-	0.2	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	3	228	111	17	7	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	0	4	7	6	14	0
Mvmt Flow	3	262	128	20	8	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	147	0	-	0	406	137
Stage 1	-	-	-	-	137	-
Stage 2	-	-	-	-	269	-
Critical Hdwy	4.1	-	-	-	6.54	6.2
Critical Hdwy Stg 1	-	-	-	-	5.54	-
Critical Hdwy Stg 2	-	-	-	-	5.54	-
Follow-up Hdwy	2.2	-	-	-	3.626	3.3
Pot Cap-1 Maneuver	1447	-	-	-	579	917
Stage 1	-	-	-	-	861	-
Stage 2	-	-	-	-	749	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1447	-	-	-	578	917
Mov Cap-2 Maneuver	-	-	-	-	578	-
Stage 1	-	-	-	-	861	-
Stage 2	-	-	-	-	748	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	10.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1447	-	-	-	630
HCM Lane V/C Ratio	0.002	-	-	-	0.016
HCM Control Delay (s)	7.5	0	-	-	10.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	38	2	171	74	1	116
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	5	0	5	4	0	11
Mvmt Flow	45	2	201	87	1	136

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	384	245	0	0	288	0
Stage 1	245	-	-	-	-	-
Stage 2	139	-	-	-	-	-
Critical Hdwy	6.45	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	613	799	-	-	1286	-
Stage 1	789	-	-	-	-	-
Stage 2	880	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	612	799	-	-	1286	-
Mov Cap-2 Maneuver	612	-	-	-	-	-
Stage 1	789	-	-	-	-	-
Stage 2	879	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	619	1286	-
HCM Lane V/C Ratio	-	-	0.076	0.001	-
HCM Control Delay (s)	-	-	11.3	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	4.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	51	5	10	40	15	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	14	0	9	11	0	0
Mvmt Flow	65	6	13	51	19	15

Major/Minor	Major2		Major1		Minor2	
Conflicting Flow All	63	-	0	0	38	195
Stage 1	-	-	-	-	0	132
Stage 2	-	-	-	-	38	63
Critical Hdwy	4.24	-	-	-	6.4	6.5
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	5.4	5.5
Follow-up Hdwy	2.326	-	-	-	3.5	4
Pot Cap-1 Maneuver	1466	-	-	-	979	704
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	990	846
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1466	-	-	-	936	0
Mov Cap-2 Maneuver	-	-	-	-	936	0
Stage 1	-	-	-	-	-	0
Stage 2	-	-	-	-	990	0

Approach	WB	NB	SB
HCM Control Delay, s	6.9	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBT	NBR	WBL	WBR	SBLn1
Capacity (veh/h)	-	-	1466	-	936
HCM Lane V/C Ratio	-	-	0.044	-	0.02
HCM Control Delay (s)	-	-	7.6	-	8.9
HCM Lane LOS	-	-	A	-	A
HCM 95th %tile Q(veh)	-	-	0.1	-	0.1

Intersection	
Int Delay, s/veh	6.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	12	35	24	32	39	0	22	45	29	6	48	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	31	10	4	14	16	0	0	4	6	0	8	12
Mvmt Flow	13	38	26	34	42	0	24	48	31	6	52	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	42	0	0	63	0	0	216	187	51	227	200	42
Stage 1	-	-	-	-	-	-	76	76	-	111	111	-
Stage 2	-	-	-	-	-	-	140	111	-	116	89	-
Critical Hdwy	4.41	-	-	4.24	-	-	7.1	6.54	6.26	7.1	6.58	6.32
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.54	-	6.1	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.54	-	6.1	5.58	-
Follow-up Hdwy	2.479	-	-	2.326	-	-	3.5	4.036	3.354	3.5	4.072	3.408
Pot Cap-1 Maneuver	1399	-	-	1466	-	-	745	704	1006	733	685	1001
Stage 1	-	-	-	-	-	-	938	828	-	899	792	-
Stage 2	-	-	-	-	-	-	868	800	-	894	810	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1399	-	-	1466	-	-	678	680	1006	655	662	1001
Mov Cap-2 Maneuver	-	-	-	-	-	-	678	680	-	655	662	-
Stage 1	-	-	-	-	-	-	929	820	-	890	773	-
Stage 2	-	-	-	-	-	-	785	781	-	807	802	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	3.4	10.5	10.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	753	1399	-	-	1466	-	-	688
HCM Lane V/C Ratio	0.137	0.009	-	-	0.023	-	-	0.095
HCM Control Delay (s)	10.5	7.6	0	-	7.5	0	-	10.8
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0	-	-	0.1	-	-	0.3

Intersection	
Int Delay, s/veh	2.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	122	17	34	99	9	47
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	9	6	11	11	20	20
Mvmt Flow	144	20	40	116	11	55

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	164	0	350	154
Stage 1	-	-	-	-	154	-
Stage 2	-	-	-	-	196	-
Critical Hdwy	-	-	4.21	-	6.6	6.4
Critical Hdwy Stg 1	-	-	-	-	5.6	-
Critical Hdwy Stg 2	-	-	-	-	5.6	-
Follow-up Hdwy	-	-	2.299	-	3.68	3.48
Pot Cap-1 Maneuver	-	-	1361	-	613	847
Stage 1	-	-	-	-	832	-
Stage 2	-	-	-	-	796	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1361	-	594	847
Mov Cap-2 Maneuver	-	-	-	-	594	-
Stage 1	-	-	-	-	832	-
Stage 2	-	-	-	-	771	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2	10
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	793	-	-	1361	-
HCM Lane V/C Ratio	0.083	-	-	0.029	-
HCM Control Delay (s)	10	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	170	14	20	153	3	26
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Yield	-	None	-	None
Storage Length	-	50	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	12	13	4	9	0	11
Mvmt Flow	179	15	21	161	3	27

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	179	0	382	180
Stage 1	-	-	-	-	179	-
Stage 2	-	-	-	-	203	-
Critical Hdwy	-	-	4.14	-	6.4	6.31
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.236	-	3.5	3.399
Pot Cap-1 Maneuver	-	-	1385	-	624	840
Stage 1	-	-	-	-	857	-
Stage 2	-	-	-	-	836	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1384	-	613	839
Mov Cap-2 Maneuver	-	-	-	-	613	-
Stage 1	-	-	-	-	857	-
Stage 2	-	-	-	-	821	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	9.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	808	-	-	1384	-
HCM Lane V/C Ratio	0.038	-	-	0.015	-
HCM Control Delay (s)	9.6	-	-	7.6	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	4	105	4	2	2	69	305	8	5	315	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	-	-	-	-	300	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	2	0	50	0	3	6	0	0	4	0
Mvmt Flow	1	4	112	4	2	2	73	324	9	5	335	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	819	817	335	875	817	324	335	0	0	324	0	0
Stage 1	346	346	-	471	471	-	-	-	-	-	-	-
Stage 2	473	471	-	404	346	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.22	7.1	7	6.2	4.13	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	6	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.318	3.5	4.45	3.3	2.227	-	-	2.2	-	-
Pot Cap-1 Maneuver	297	313	707	272	262	722	1219	-	-	1247	-	-
Stage 1	674	639	-	577	487	-	-	-	-	-	-	-
Stage 2	576	563	-	627	559	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	280	293	707	215	245	722	1219	-	-	1247	-	-
Mov Cap-2 Maneuver	280	293	-	215	245	-	-	-	-	-	-	-
Stage 1	634	636	-	542	458	-	-	-	-	-	-	-
Stage 2	537	529	-	522	557	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.6	18.7	1.5	0.1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1219	-	-	664	271	1247	-	-
HCM Lane V/C Ratio	0.06	-	-	0.176	0.031	0.004	-	-
HCM Control Delay (s)	8.1	-	-	11.6	18.7	7.9	-	-
HCM Lane LOS	A	-	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.6	0.1	0	-	-

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	WBT	WBR	SWL	SWR
Vol, veh/h	67	44	34	26	13	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	4	2	7	7	7
Mvmt Flow	74	49	38	29	14	61

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	67	0	-	0	250	52
Stage 1	-	-	-	-	52	-
Stage 2	-	-	-	-	198	-
Critical Hdwy	4.13	-	-	-	6.47	6.27
Critical Hdwy Stg 1	-	-	-	-	5.47	-
Critical Hdwy Stg 2	-	-	-	-	5.47	-
Follow-up Hdwy	2.227	-	-	-	3.563	3.363
Pot Cap-1 Maneuver	1528	-	-	-	728	1002
Stage 1	-	-	-	-	958	-
Stage 2	-	-	-	-	824	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1528	-	-	-	693	1002
Mov Cap-2 Maneuver	-	-	-	-	693	-
Stage 1	-	-	-	-	958	-
Stage 2	-	-	-	-	784	-

Approach	EB	WB	SW
HCM Control Delay, s	4.5	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SWLn1
Capacity (veh/h)	1528	-	-	-	923
HCM Lane V/C Ratio	0.049	-	-	-	0.082
HCM Control Delay (s)	7.5	-	-	-	9.2
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3

Intersection	
Int Delay, s/veh	5.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	42	6	54	30	8	79
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	14	8	0	0	5
Mvmt Flow	45	6	57	32	9	84

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	51	0	195	48
Stage 1	-	-	-	-	48	-
Stage 2	-	-	-	-	147	-
Critical Hdwy	-	-	4.18	-	6.4	6.25
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.272	-	3.5	3.345
Pot Cap-1 Maneuver	-	-	1518	-	798	1012
Stage 1	-	-	-	-	980	-
Stage 2	-	-	-	-	885	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1518	-	768	1012
Mov Cap-2 Maneuver	-	-	-	-	768	-
Stage 1	-	-	-	-	980	-
Stage 2	-	-	-	-	851	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.8	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	983	-	-	1518	-
HCM Lane V/C Ratio	0.094	-	-	0.038	-
HCM Control Delay (s)	9	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Intersection	
Int Delay, s/veh	2.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	67	12	101	101	35	86
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	7	8	5	5	0	9
Mvmt Flow	75	13	113	113	39	97

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	345	171	0	0	227	0
Stage 1	170	-	-	-	-	-
Stage 2	175	-	-	-	-	-
Critical Hdwy	6.47	6.28	-	-	4.1	-
Critical Hdwy Stg 1	5.47	-	-	-	-	-
Critical Hdwy Stg 2	5.47	-	-	-	-	-
Follow-up Hdwy	3.563	3.372	-	-	2.2	-
Pot Cap-1 Maneuver	642	857	-	-	1353	-
Stage 1	848	-	-	-	-	-
Stage 2	843	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	622	856	-	-	1352	-
Mov Cap-2 Maneuver	622	-	-	-	-	-
Stage 1	848	-	-	-	-	-
Stage 2	817	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.4	0	2.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	649	1352	-
HCM Lane V/C Ratio	-	-	0.137	0.029	-
HCM Control Delay (s)	-	-	11.4	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	13	76	43	0	2	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	7	7	6	0	0	0
Mvmt Flow	17	101	57	0	3	7

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	57	0	-	0	193	57
Stage 1	-	-	-	-	57	-
Stage 2	-	-	-	-	136	-
Critical Hdwy	4.17	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.263	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1516	-	-	-	800	1015
Stage 1	-	-	-	-	971	-
Stage 2	-	-	-	-	895	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1516	-	-	-	790	1015
Mov Cap-2 Maneuver	-	-	-	-	790	-
Stage 1	-	-	-	-	971	-
Stage 2	-	-	-	-	884	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1516	-	-	-	939
HCM Lane V/C Ratio	0.011	-	-	-	0.01
HCM Control Delay (s)	7.4	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	81	33	9	30	16	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	6	6	10	3	17	14
Mvmt Flow	95	39	11	35	19	24

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	134	0	171	115
Stage 1	-	-	-	-	115	-
Stage 2	-	-	-	-	56	-
Critical Hdwy	-	-	4.2	-	6.57	6.34
Critical Hdwy Stg 1	-	-	-	-	5.57	-
Critical Hdwy Stg 2	-	-	-	-	5.57	-
Follow-up Hdwy	-	-	2.29	-	3.653	3.426
Pot Cap-1 Maneuver	-	-	1403	-	786	906
Stage 1	-	-	-	-	874	-
Stage 2	-	-	-	-	930	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1403	-	780	906
Mov Cap-2 Maneuver	-	-	-	-	780	-
Stage 1	-	-	-	-	874	-
Stage 2	-	-	-	-	923	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.8	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	845	-	-	1403	-
HCM Lane V/C Ratio	0.05	-	-	0.008	-
HCM Control Delay (s)	9.5	-	-	7.6	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	1	40	20	1	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	4	14	0	0	0
Mvmt Flow	1	47	24	1	0	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	25	0	-	0	73	24
Stage 1	-	-	-	-	24	-
Stage 2	-	-	-	-	49	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1603	-	-	-	936	1058
Stage 1	-	-	-	-	1004	-
Stage 2	-	-	-	-	979	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1603	-	-	-	935	1058
Mov Cap-2 Maneuver	-	-	-	-	935	-
Stage 1	-	-	-	-	1004	-
Stage 2	-	-	-	-	978	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	8.4
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1603	-	-	-	1058
HCM Lane V/C Ratio	0.001	-	-	-	0.003
HCM Control Delay (s)	7.2	0	-	-	8.4
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	2	0	2	0	31	1	67	1	42	70	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	6	0	7	0	6	1	0
Mvmt Flow	1	2	0	2	0	36	1	77	1	48	80	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	276	258	81	259	258	78	82	0	0	78	0	0
Stage 1	178	178	-	80	80	-	-	-	-	-	-	-
Stage 2	98	80	-	179	178	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.26	4.1	-	-	4.16	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.354	2.2	-	-	2.254	-	-
Pot Cap-1 Maneuver	680	650	985	698	650	972	1528	-	-	1495	-	-
Stage 1	828	756	-	934	832	-	-	-	-	-	-	-
Stage 2	913	832	-	827	756	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	638	627	985	677	627	972	1528	-	-	1495	-	-
Mov Cap-2 Maneuver	638	627	-	677	627	-	-	-	-	-	-	-
Stage 1	827	730	-	933	831	-	-	-	-	-	-	-
Stage 2	879	831	-	796	730	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.7	9	0.1	2.8
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1528	-	-	631	947	1495	-	-
HCM Lane V/C Ratio	0.001	-	-	0.005	0.04	0.032	-	-
HCM Control Delay (s)	7.4	0	-	10.7	9	7.5	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	20	36	9	0	9	13	7	29	1	15	43	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	14	0	0	0	0	0	0	12	0	12	13	5
Mvmt Flow	22	40	10	0	10	15	8	33	1	17	48	21

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	25	0	0	51	0	0	142	115	46	124	113	17
Stage 1	-	-	-	-	-	-	90	90	-	17	17	-
Stage 2	-	-	-	-	-	-	52	25	-	107	96	-
Critical Hdwy	4.24	-	-	4.1	-	-	7.1	6.62	6.2	7.22	6.63	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.62	-	6.22	5.63	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.62	-	6.22	5.63	-
Follow-up Hdwy	2.326	-	-	2.2	-	-	3.5	4.108	3.3	3.608	4.117	3.345
Pot Cap-1 Maneuver	1515	-	-	1568	-	-	832	757	1029	827	757	1053
Stage 1	-	-	-	-	-	-	922	801	-	977	860	-
Stage 2	-	-	-	-	-	-	966	855	-	875	795	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1515	-	-	1568	-	-	766	746	1029	789	746	1053
Mov Cap-2 Maneuver	-	-	-	-	-	-	766	746	-	789	746	-
Stage 1	-	-	-	-	-	-	908	789	-	962	860	-
Stage 2	-	-	-	-	-	-	893	855	-	825	783	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.3	0	10	10
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	755	1515	-	-	1568	-	-	813
HCM Lane V/C Ratio	0.055	0.015	-	-	-	-	-	0.106
HCM Control Delay (s)	10	7.4	0	-	0	-	-	10
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.4

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	67	459	345	3	3	48
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	170	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	6	6	6	33	0	8
Mvmt Flow	75	516	388	3	3	54

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	391	0	-	0	1055	389
Stage 1	-	-	-	-	389	-
Stage 2	-	-	-	-	666	-
Critical Hdwy	4.16	-	-	-	6.4	6.28
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.254	-	-	-	3.5	3.372
Pot Cap-1 Maneuver	1146	-	-	-	252	646
Stage 1	-	-	-	-	689	-
Stage 2	-	-	-	-	515	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1146	-	-	-	236	646
Mov Cap-2 Maneuver	-	-	-	-	236	-
Stage 1	-	-	-	-	689	-
Stage 2	-	-	-	-	481	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	11.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1146	-	-	-	586
HCM Lane V/C Ratio	0.066	-	-	-	0.098
HCM Control Delay (s)	8.4	-	-	-	11.8
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	36	110	11	9	78	12	5	51	12	8	32	31
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	4	0	10	6	0	20	7	0	11	9	0
Mvmt Flow	39	120	12	10	85	13	5	55	13	9	35	34

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	98	0	0	132	0	0	349	321	126	349	321	91
Stage 1	-	-	-	-	-	-	204	204	-	111	111	-
Stage 2	-	-	-	-	-	-	145	117	-	238	210	-
Critical Hdwy	4.13	-	-	4.2	-	-	7.3	6.57	6.2	7.21	6.59	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.3	5.57	-	6.21	5.59	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.3	5.57	-	6.21	5.59	-
Follow-up Hdwy	2.227	-	-	2.29	-	-	3.68	4.063	3.3	3.599	4.081	3.3
Pot Cap-1 Maneuver	1489	-	-	1405	-	-	573	588	930	589	585	972
Stage 1	-	-	-	-	-	-	758	723	-	873	790	-
Stage 2	-	-	-	-	-	-	817	789	-	746	715	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1489	-	-	1405	-	-	513	567	930	523	564	972
Mov Cap-2 Maneuver	-	-	-	-	-	-	513	567	-	523	564	-
Stage 1	-	-	-	-	-	-	737	703	-	849	784	-
Stage 2	-	-	-	-	-	-	748	783	-	659	695	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.7	0.7	11.8	10.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	604	1489	-	-	1405	-	-	683
HCM Lane V/C Ratio	0.122	0.026	-	-	0.007	-	-	0.113
HCM Control Delay (s)	11.8	7.5	0	-	7.6	0	-	10.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.4	0.1	-	-	0	-	-	0.4

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	2	335	26	59	210	17	14	8	64	9	6	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	280	-	270	150	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	2	0	3	4	0	7	11	6	0	0	0
Mvmt Flow	2	381	30	67	239	19	16	9	73	10	7	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	258	0	0	381	0	0	771	777	381	808	767	248
Stage 1	-	-	-	-	-	-	385	385	-	382	382	-
Stage 2	-	-	-	-	-	-	386	392	-	426	385	-
Critical Hdwy	4.1	-	-	4.13	-	-	7.17	6.61	6.26	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.17	5.61	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.17	5.61	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.227	-	-	3.563	4.099	3.354	3.5	4	3.3
Pot Cap-1 Maneuver	1318	-	-	1172	-	-	311	318	657	302	335	796
Stage 1	-	-	-	-	-	-	628	595	-	645	616	-
Stage 2	-	-	-	-	-	-	627	591	-	610	614	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1318	-	-	1172	-	-	292	299	657	251	315	796
Mov Cap-2 Maneuver	-	-	-	-	-	-	292	299	-	251	315	-
Stage 1	-	-	-	-	-	-	627	594	-	644	581	-
Stage 2	-	-	-	-	-	-	584	557	-	533	613	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.7	13.9	19.1
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	500	1318	-	-	1172	-	-	273
HCM Lane V/C Ratio	0.195	0.002	-	-	0.057	-	-	0.062
HCM Control Delay (s)	13.9	7.7	-	-	8.3	-	-	19.1
HCM Lane LOS	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.7	0	-	-	0.2	-	-	0.2

Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	28	56	12	72	39	0	12	24	34	0	37	61
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	8	7	2	8	7	2	2	12	11	2	5	2
Mvmt Flow	38	77	16	99	53	0	16	33	47	0	51	84

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	53	0	0	93	0	0	480	413	85	452	421	53
Stage 1	-	-	-	-	-	-	162	162	-	251	251	-
Stage 2	-	-	-	-	-	-	318	251	-	201	170	-
Critical Hdwy	4.18	-	-	4.18	-	-	7.12	6.62	6.31	7.12	6.55	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.62	-	6.12	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.62	-	6.12	5.55	-
Follow-up Hdwy	2.272	-	-	2.272	-	-	3.518	4.108	3.399	3.518	4.045	3.318
Pot Cap-1 Maneuver	1515	-	-	1464	-	-	496	514	950	518	519	1014
Stage 1	-	-	-	-	-	-	840	745	-	753	694	-
Stage 2	-	-	-	-	-	-	693	681	-	801	752	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1515	-	-	1464	-	-	388	465	950	432	470	1014
Mov Cap-2 Maneuver	-	-	-	-	-	-	388	465	-	432	470	-
Stage 1	-	-	-	-	-	-	817	725	-	733	645	-
Stage 2	-	-	-	-	-	-	545	633	-	708	732	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.2	5	12.3	11.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	592	1515	-	-	1464	-	-	706
HCM Lane V/C Ratio	0.162	0.025	-	-	0.067	-	-	0.19
HCM Control Delay (s)	12.3	7.4	0	-	7.6	0	-	11.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.6	0.1	-	-	0.2	-	-	0.7

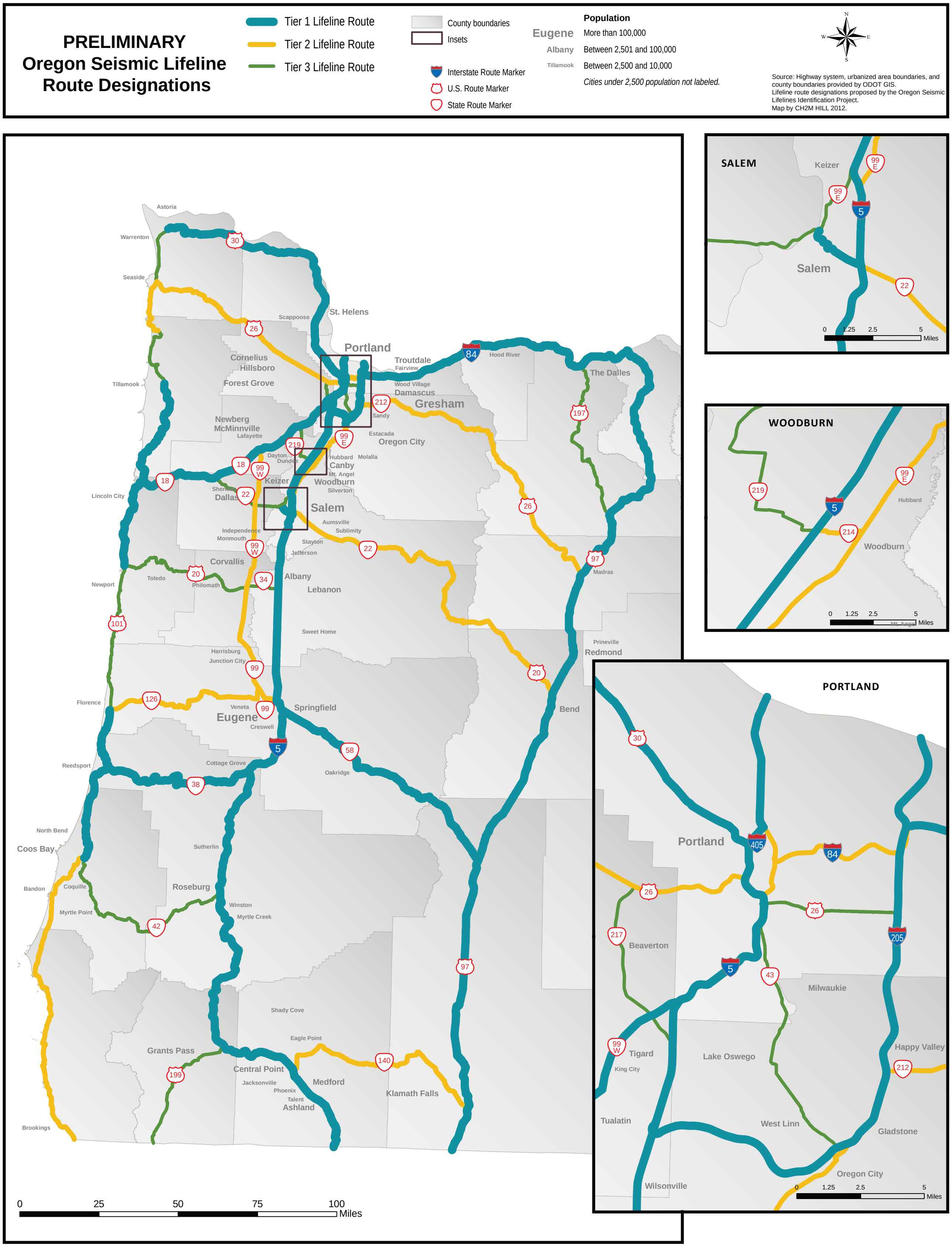
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	28	923	60	7	458	70	31	23	20	74	22	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.93		1.00	0.92	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1641	3505	1538	1583	3312	1553	1703	1654		1787	1623	
Flt Permitted	0.47	1.00	1.00	0.28	1.00	1.00	0.72	1.00		0.73	1.00	
Satd. Flow (perm)	816	3505	1538	469	3312	1553	1295	1654		1366	1623	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	30	992	65	8	492	75	33	25	22	80	24	29
RTOR Reduction (vph)	0	0	34	0	0	39	0	17	0	0	22	0
Lane Group Flow (vph)	30	992	31	8	492	36	33	30	0	80	31	0
Heavy Vehicles (%)	10%	3%	5%	14%	9%	4%	6%	4%	10%	1%	8%	7%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	14.2	14.2	14.2	14.2	14.2	14.2	7.2	7.2		7.2	7.2	
Effective Green, g (s)	14.2	14.2	14.2	14.2	14.2	14.2	7.2	7.2		7.2	7.2	
Actuated g/C Ratio	0.48	0.48	0.48	0.48	0.48	0.48	0.24	0.24		0.24	0.24	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	394	1692	742	226	1599	750	317	405		334	397	
v/s Ratio Prot		c0.28			0.15			0.02			0.02	
v/s Ratio Perm	0.04		0.02	0.02		0.02	0.03			c0.06		
v/c Ratio	0.08	0.59	0.04	0.04	0.31	0.05	0.10	0.08		0.24	0.08	
Uniform Delay, d1	4.1	5.5	4.0	4.0	4.6	4.0	8.6	8.5		8.9	8.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.1	0.5	0.0	0.1	0.1	0.0	0.1	0.1		0.4	0.1	
Delay (s)	4.2	6.0	4.0	4.1	4.7	4.0	8.7	8.6		9.3	8.6	
Level of Service	A	A	A	A	A	A	A	A		A	A	
Approach Delay (s)		5.8			4.6			8.7			9.0	
Approach LOS		A			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	5.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	29.4	Sum of lost time (s)	8.0
Intersection Capacity Utilization	42.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Priority Lifeline Routes in Linn County

FIGURE 6-1
Oregon Seismic Lifeline Routes



Reported Needs Table

Linn County Transportation System Plan
Reported Needs

Location	Reported Need				
	No.	Description	Type*	Source	Comments
US 20 (approx. four miles east of junction with OR 22	1	Multiple fatal crashes - probably weather related – ODOT is addressing some issues with thawing and refreezing across the highway	S	Crash Data, Maintenance Staff	
US 20 between Canyon Creek Road and OR 126 (McKenzie Highway)	4	One fatal and two injury crashes – there a lot of slides in the area - repairs going on now at Sheep Creek	S	Crash Data, Maintenance Staff	Primarily a recreational route. There is a lot of timber traffic, but it is not a through truck route, so it doesn't compete well for funding.
US 20 (approx. 2 miles east of Quartzville Road intersection)	5	Injury crashes	S	Crash data, Maintenance Staff	Crashes potentially due to horizontal alignment
US 20 at eastern Sweet Home Urban Growth Boundary (UGB)	7	Railroad crossing height restriction causes trucks to detour. There are bike/ped issues due to narrow road.	S/B/P	Maintenance Staff	Bicycles and pedestrians use this route to access Quartzville Road (on the north side of US 20) or River Bend County Park, both are east of Sweet Home on US 20.
OR 228 at Fern Ridge Road/Powell Hill Road	8	Injury crashes likely due to sight distance issues caused by trees just west of Fern Ridge/Powell Hill - need tree removal	S	Crash Data, Maintenance Staff	Trees should be removed, according to maintenance staff
OR 228 at Crawfordsville Drive (east end)	9	Sight distance restriction due to vertical curve on OR 226 south of intersection	S	Maintenance Staff	
OR 228 at Crawfordsville Drive (west end)	10	Sight distance restriction at Crawfordsville due to horizontal curves both directions	S	Maintenance Staff	
OR 228 at Northern Drive	11	Bridge to west limits sight distance from Northern Drive	S	Maintenance Staff	Build up Northern Drive intersection to provide better sight distance? Relatively low volume intersection.
Gap Road and Diamond Hill Road	12	Important scenic bike route - narrow, curvy, hilly road - no shoulders	S/B/P	Maintenance Staff	
Gap Road/Diamond Hill Road	0	Bridges and horizontal curve restricted sight distance	**S**	Maintenance Staff	
Belts Drive/Diamond Hill Road	14	Interchange overcrossing and signage limits sight distance at intersection	S	Maintenance Staff	
I-5 Interchange at Diamond Hill Road	15	Guard rail issues. Overpass is narrow and tight for trucks. Restricted sight distance due to vertical curve on overpass	S/G	Maintenance Staff	Guard rail issues due to narrow travel lanes and narrow shoulders?
Powerline Road/Diamond Hill Road	16	Skewed intersection, poor sight distance	S	Crash Data, Maintenance Staff	No fatalities since recent installation of flashing "stop ahead" sign (within last year)
OR 99E/Lake Creek Road	17	Lake Creek Road is stop controlled Railroad tracks block view of 99E from westbound Lake Creek Road	S	Crash Data, Maintenance Staff	Signage has recently been upgraded
OR 99E/Fayetteville Road	18	Fatality noted	S	Crash Data	Maintenance staff noted no obvious deficiencies
Brownsville Road/Washburn Heights Drive	19	Washburn Road needs modernization and needs to be rerouted	S/M	Maintenance Staff	
Brownsville Road between Rock Hill Drive and south of Washburn Heights Drive	20	Narrow roadway/shoulders - needs travel lane widening	S/G	Crash Data, Maintenance Staff	Have widened shoulders and added delineators, but still needs travel lane widening

Linn County Transportation System Plan
Reported Needs

Location	Reported Need				
	No.	Description	Type*	Source	Comments
Waterloo (just east of town)	21	Weight restricted bridge	M	Maintenance Staff	Weight restriction limits functionality of route (in conjunction with Waterloo Road, Bellinger Scale Road, Lacomb Road, Kowits Road, Richardson Gap Road)
Waterloo Road between town/bridge and Berlin Road	22	Narrow road, part of longer truck route, including Bellinger Scale Road, Lacomb Road, Kowits Road and Richardson Gap Road	G/S	Maintenance Staff	Weak link in the route - good candidate for widening project
Crowfoot Road/US 20	23	Skewed alignment	S/M	Crash Data, Maintenance Staff	Volume will grow as development occurs in south part of Lebanon
Crowfoot Road	24	Ultimately will be 5-lane section	M	Maintenance Staff	Within Lebanon UGB (not in Linn County TSP Study Area). Intersection with Central Avenue and Cascade Drive needs solution (Lebanon TSP to identify)
Denney School Road/Airport Drive	25	Horizontal curve, sight distance restriction, high speeds	S	Crash Data, Maintenance Staff	
Seven Mile Lane/OR 34	26	Fatalities	S/M		Traffic signal programmed
OR 34 between Oakville Road and Gotra Road	27	Fatal and injury crashes	S	Crash Data, Maintenance Staff	Access control planned - center barrier (between Oakville Road and Gotra Road)
Riverside Drive/OR 34	28	Sweeping turns, skewed, restricted visibility, sharp/narrow passage	S	Crash Data/Maintenance Staff	County planned to disconnect at one point (reroute via Orleans Drive), but did not due to opposition
OR 34 Bypass/OR 34/US 20	29	Injury crash	S	Crash Data	Has recently been improved
OR 34/Peoria Road	30	Injury crashes, ARTS 150% list***	S	Crash Data	Traffic signal controlled – ARTS project would add red extension
Orleans Drive/OR 34	31	Considered for potential rerouting of Riverside Drive	S	Crash Data, Maintenance Staff	Has better alignment to OR 34 than Riverside Drive (rejected by opposition)
Riverside Drive Curve west of Albany	32	20 Crashes (anecdotal)	S	Maintenance Staff	May need improved signage (e.g. curve warning)
Scravel Hill Road/Knox Butte Road	33	Safety	S	Maintenance Staff	Recent improvements may address safety concerns
Knox Butte Road/US 20	34	Closely spaced, skewed intersections, ARTS 150% list ***	S	Crash Data, Maintenance Staff	On ODOT’s radar
OR 226/US 20	35	Fatal and injury crashes	S	Crash Data, Maintenance Staff	Consider realignment
Brewster Road north of Lacomb Road	36	Weight restriction limits trucks	M	Maintenance Staff	Trucks restricted on this route
Lacomb Road at Bond Road	37	Sight distance restriction due to vertical curves both directions (east and west) and skewed intersections	S	Maintenance Staff	
OR 226 /Fish Hatchery Road	38	Poor stop sign compliance traveling westbound	S	Maintenance Staff	Possibly due to long straight section preceding intersection
Richardson Gap Road/Fish Hatchery Road	39	Poor stop sign compliance	S	Maintenance Staff	Recent improvements include flashers, larger signs, rumble strips, solar powered "stop ahead" sign. Improvements seem to help.
Richardson Gap Road/Cole School Road/OR 226	40	Very poor stop sign compliance - major issue, rear-end crashes.	S	Maintenance Staff	Turn lane may help

Linn County Transportation System Plan
Reported Needs

Location	Reported Need				
	No.	Description	Type*	Source	Comments
Stayton-Scio Road/Cole School Road/Richardson Gap Road/ Kowits Road/ Bellinger Scale Road/Waterloo Road	41	Truck route and Major bike route (from Stayton Scio Rd to Waterloo Rd)	M/B/P	Maintenance Staff	Potential corridor for widening/improvements to help trucks/bicyclists/pedestrians
OR 226/Kingston Jordon Road	42	Restricted sight distance to east due to sweeping curve and vertical and horizontal curves	S	Maintenance Staff	Clear brushes in vicinity of intersection
OR 226 between Kingston-Lyons Drive and Lyons	43	Vertical and horizontal curves restrict sight distance	S	Maintenance Staff	
OR 226/McCully Mountain Road (in Lyons)	44	Skewed intersection – horizontal and vertical curves restrict sight distance	S	Maintenance Staff	Intersection needs improvement
Sodaville Road/Cascade Drive	45	Restricted sight distance due to vegetation. High speeds and truck traffic.	S	Maintenance Staff	Clear/trim vegetation in vicinity of intersection
Brewster Road/OR 226	46	Stop sign not visible in poor visibility conditions (e.g. fog, bad weather)	S	Maintenance Staff	
Brewster Road/Mt. Hope Road	47	Accidents, heavy truck traffic due to pits.	S	Maintenance Staff	Potential restricted sight distance due to vegetation and horizontal curve on Brewster Road.
Ford Mill Road/Lacomb Drive	49	Accidents	S	Maintenance Staff	Non-traditional intersection with two skewed approaches to Lacomb Drive. Potential sight distance restriction. Potential confusion about right-of-way.
Steckley Road/Sand Ridge Road	50	Accidents	S	Maintenance Staff	Non-traditional intersection where Sand Ridge Road is the through route, but turns 90-degrees. Steckley Road is the minor-street approach. May be confusing to drivers.
Sandner Drive/Kingston-Jordan Drive	51	Skewed intersection with sight distance restriction	S/G	Maintenance Staff	Kingston-Jordan is through route with significant curve. Sandner Drive approaches on curve at a significant skew. Right-of-way and intersection configuration may be confusing to drivers.

Location	Reported Need				
	No.	Description	Type*	Source	Comments
Ede Road/Fish Hatchery Drive	52	Ede Road approaches Fish Hatchery Road on adjacent horizontal curves. Sight distance is likely restricted	S/G	Maintenance Staff	Intersection geometrics (horizontal curves on Fish Hatchery Road and Ede Road skewed approach), along with vegetation contribute to sight distance restrictions.
Waterloo Road/Berlin Road	53	Narrow road, log trucks, skewed	S/G	Maintenance Staff	Non-traditional intersection configuration is skewed and may cause confusion to drivers over right-of-way. Vegetation may cause sight distance restriction.
Ridgeway Road/Marks Ridge Road	54	Skewed intersection with restricted sight distance	S/G	Maintenance Staff	Non-traditional intersection with two approaches to Ridgeway Road, Marks Ridge Road is off-set, creating three approaches to Ridgeway Road, vertical curve in Ridgeway Road and vegetation restrict sight distance.
North River Drive/Sunnyside Drive to Quartzville Road	55	Narrow, curvy (horizontal and vertical) roadway used by multiple modes (e.g. trucks, RV's, bicycles, pedestrians, sightseers)	S/G/B/P	Maintenance Staff	
Spicer Drive/Engle Road	56	Skewed intersection with two approaches from Engle Road to Spicer Drive, controlled by "yield" sign	S/G	Maintenance Staff	Non-traditional intersection configuration is skewed and yield control may cause confusion to drivers over right-of-way.
Spicer Drive/Kennel Road	57	Skewed intersection, accidents	S/G	Maintenance Staff	Skewed intersection of two long-straight segments. Straight and flat with no tall vegetation. May need "intersection ahead" warning for stop controlled approach (Kennel Road).
Kamph Drive/Shady Bend Road/Murder Creek Drive	58	Restricted sight distance, skewed intersection, accidents	S/G	Maintenance Staff	Shady Bend Road intersects at 90-degree curve between Kamph Drive and Murder Creek Drive. Horizontal curves may restrict sight distance.
Riverside Drive/Oakville Road	59	Restricted sight distance, accidents	S/G	Maintenance Staff	Restricted sight distance from Riverside Drive due to horizontal curve to the north and vegetation to the south.
Rock Hill Drive/South Main Street	60	Restricted sight distance, accidents	S/G	Maintenance Staff	Sight distance restricted by vertical curve on Rock Hill Drive to west of intersection and potentially due to vegetation, sight obstructions (e.g. power poles) to east of intersection.

Location	Reported Need				
	No.	Description	Type*	Source	Comments
Rock Hill Drive/South 5th Street	61	Restricted sight distance accidents	S	Maintenance Staff	Sight distance restricted by slight horizontal/vertical curve to east and vegetation, sight obstructions (e.g. power poles) to west.

* A = Access, M = Mobility, G = Geometric, O = Traffic Operations, Mnt = Maintenance, S = Safety, B = Bike, P = Pedestrian, T = Transit
** Number of comments received.
*** ARTS 150% list – identified in ODOT's All Roads Transportation Safety program.

Study Intersection Critical Crash Rate Results

General & Site Information	
Analyst:	BLC
Agency/Company:	DKS Associates
Date:	December, 2015
Project Name:	Linn County TSP

Intersection Crash Data

Int. ID	Intersection	Intersection Type	Year 2009	2010	2011	2012	2013 (All)	Total
1	Hwy 34 and Denny School Rd	Rural 3ST					22	22
2	Denny School Rd and Oak Dr	Rural 4ST					11	11
3	Cascade Dr and Crowfood Rd	Rural 4ST					0	0
4	US 20 and Crowfoot Rd	Rural 3ST					2	2
5	US 20 and Knox Butte Road	Rural 3ST					15	15
6	US 20 and OR 226	Rural 3ST					7	7
7	US 20 and OR 126 (McKenzie Hwy)	Rural 3ST					1	1
8	US 20, OR 22 and OR 126	Rural 3ST					2	2
9	Stayton-Scio Rd and Cole School Rd	Rural 4ST					2	2
10	Stayton-Scio Rd and Kingston-Jordan Rd	Rural 3ST					1	1
11	Stayton-Scio Rd and Slangal Dr	Rural 3ST					2	2
12	Hwy 34 and Oakville Rd North	Rural 3ST					12	12
13	Hwy 34 and Oakville Rd South	Rural 3ST					0	0
14	Hwy 34 and Peoria Rd	Rural 4SG					66	66
15	Hwy 34 and Riverside Dr	Rural 4ST					5	5
16	Hwy 34 and 7 Mile Ln SE	Rural 4ST					26	26
17	OR 226 and Brewster Rd	Rural 3ST					5	5
18	OR 226 and Crabtree Dr	Rural 3ST					0	0
19	OR 226 and Fish Hatchery Dr	Rural 3ST					0	0
20	OR 226 and Kingston-Jordan Dr	Rural 3ST					0	0
21	OR 226 and Richardson Gap Rd	Rural 4ST					5	5
22	OR 228 and Brush Creek Rd	Rural 3ST					3	3
23	OR 288 and Upper Calapooia Dr	Rural 3ST					1	1
24	US 20 and Spicer Road	Rural 4ST					5	5
25	Berlin Rd and Bellinger Scale Rd	Rural 3ST					2	2
26	Berlin Rd and Waterloo Rd	Rural 3ST					1	1
27	Brewster Rd and Lacomb Dr	Rural 3ST					1	1
28	Jefferson-Scio Rd and Shelburn Dr	Rural 3ST					0	0
29	Bellinger Scale Rd and Lacomb Dr	Rural 3ST					4	4
30	Oakville Rd and Tangent Dr	Rural 3ST					2	2
31	Peoria Rd and American Dr	Rural 4ST					1	1
32	Fish Hatchery Dr and Richardson Gap Rd	Rural 4ST					6	6
33	US 20 and Scravel Hill Rd	Rural 3ST					4	4
34	Knox Butte Rd and Scravel Hill Rd	Rural 4ST					8	8
35	OR 164 and Scravel Hill Rd	Rural 4ST					5	5
		Total	0	0	0	0	179	179

Intersection Population Type Crash Rate
Average Crash Rate per intersection type

Intersection Pop. Type	Sum of Crashes	Sum of 5-year MEV	Avg Crash Rate for Ref Pop.	INT in Pop
Rural 3SG	0	0		
Rural 3ST	87	351	0.2476	23
Rural 4SG	66	70	0.9442	1
Rural 4ST	69	175	0.3952	10
Urban 3ST	0	0		
Urban 3SG	0	0		
Urban 4ST	0	0		
Urban 4SG	0	0		

Critical Rate Calculation

ID	Intersection	AADT Entering Intersection	5-year MEV	Crash Total	Intersection Population Type	Intersection Crash Rate	Reference Population Crash Rate	Critical Rate	Over Critical	ODOT_90th_Pctl_Rate	Over_ODOT_90th	Over CCR or ODOT 90th Pctl
1	Hwy 34 and Denny School Rd	18,995	34.7	22	Rural 3ST	0.63	0.25	0.40	Over	0.475	Yes	Yes
2	Denny School Rd and Oak Dr	12,830	23.4	11	Rural 4ST	0.47	0.40	0.63	Under	1.08	No	No
3	Cascade Dr and Crowfood Rd	3,360	6.1	0	Rural 4ST	0.00	0.40	0.89	Under	1.08	No	No
4	US 20 and Crowfoot Rd	15,290	27.9	2	Rural 3ST	0.07	0.25	0.42	Under	0.475	No	No
5	US 20 and Knox Butte Road	11,920	21.8	15	Rural 3ST	0.69	0.25	0.45	Over	0.475	Yes	Yes
6	US 20 and OR 226	12,060	22.0	7	Rural 3ST	0.32	0.25	0.44	Under	0.475	No	No
7	US 20 and OR 126 (McKenzie Hwy)	3,605	6.6	1	Rural 3ST	0.15	0.25	0.64	Under	0.475	No	No
8	US 20, OR 22 and OR 126	7,250	13.2	2	Rural 3ST	0.15	0.25	0.51	Under	0.475	No	No
9	Stayton-Scio Rd and Cole School Rd	5,030	9.2	2	Rural 4ST	0.22	0.40	0.79	Under	1.08	No	No
10	Stayton-Scio Rd and Kingston-Jordan Rd	7,865	14.4	1	Rural 3ST	0.07	0.25	0.50	Under	0.475	No	No
11	Stayton-Scio Rd and Slangal Dr	2,695	4.9	2	Rural 3ST	0.41	0.25	0.72	Under	0.475	No	No
12	Hwy 34 and Oakville Rd North	31,590	57.7	12	Rural 3ST	0.21	0.25	0.36	Under	0.475	No	No
13	Hwy 34 and Oakville Rd South	31,435	57.4	0	Rural 3ST	0.00	0.25	0.36	Under	0.475	No	No
14	Hwy 34 and Peoria Rd	38,300	69.9	66	Rural 4SG	0.94	APM Exhibit 4-1			0.579	Yes	Yes
15	Hwy 34 and Riverside Dr	31,965	58.3	5	Rural 4ST	0.09	0.40	0.54	Under	1.08	No	No
16	Hwy 34 and 7 Mile Ln SE	20,065	36.6	26	Rural 4ST	0.71	0.40	0.58	Over	1.08	No	Yes
17	OR 226 and Brewster Rd	5,660	10.3	5	Rural 3ST	0.48	0.25	0.55	Under	0.475	Yes	Yes
18	OR 226 and Crabtree Dr	4,340	7.9	0	Rural 3ST	0.00	0.25	0.60	Under	0.475	No	No
19	OR 226 and Fish Hatchery Dr	4,730	8.6	0	Rural 3ST	0.00	0.25	0.58	Under	0.475	No	No
20	OR 226 and Kingston-Jordan Dr	1,560	2.8	0	Rural 3ST	0.00	0.25	0.91	Under	0.475	No	No
21	OR 226 and Richardson Gap Rd	3,510	6.4	5	Rural 4ST	0.78	0.40	0.88	Under	1.08	No	No
22	OR 228 and Brush Creek Rd	3,775	6.9	3	Rural 3ST	0.44	0.25	0.63	Under	0.475	No	No
23	OR 288 and Upper Calapooia Dr	4,450	8.1	1	Rural 3ST	0.12	0.25	0.60	Under	0.475	No	No
24	US 20 and Spicer Road	9,435	17.2	5	Rural 4ST	0.29	0.40	0.67	Under	1.08	No	No
25	Berlin Rd and Bellinger Scale Rd	2,805	5.1	2	Rural 3ST	0.39	0.25	0.71	Under	0.475	No	No
26	Berlin Rd and Waterloo Rd	2,580	4.7	1	Rural 3ST	0.21	0.25	0.73	Under	0.475	No	No
27	Brewster Rd and Lacomb Dr	4,635	8.5	1	Rural 3ST	0.12	0.25	0.59	Under	0.475	No	No
28	Jefferson-Scio Rd and Shelburn Dr	1,625	3.0	0	Rural 3ST	0.00	0.25	0.89	Under	0.475	No	No
29	Bellinger Scale Rd and Lacomb Dr	2,225	4.1	4	Rural 3ST	0.99	0.25	0.78	Over	0.475	Yes	Yes
30	Oakville Rd and Tangent Dr	760	1.4	2	Rural 3ST	1.44	0.25	1.30	Over	0.475	Yes	Yes
31	Peoria Rd and American Dr	2,555	4.7	1	Rural 4ST	0.21	0.40	0.98	Under	1.08	No	No
32	Fish Hatchery Dr and Richardson Gap Rd	2,365	4.3	6	Rural 4ST	1.39	0.40	1.01	Over	1.08	Yes	Yes
33	US 20 and Scravel Hill Rd	10,660	19.5	4	Rural 3ST	0.21	0.25	0.46	Under	0.475	No	No
34	Knox Butte Rd and Scravel Hill Rd	4,560	8.3	8	Rural 4ST	0.96	0.40	0.81	Over	1.08	No	Yes
35	OR 164 and Scravel Hill Rd	8,655	15.8	5	Rural 4ST	0.32	0.40	0.69	Under	1.08	No	No

Segment Critical Crash Rate Results

General & Site Information	
Analyst:	BLC
Agency/Company:	DKS Associates
Date:	3/7/2016
Project Name:	Linn County TSP - County Segments

Reference Population Type Crash Rates						
Segment Reference Population Type		Population Type Number	No. of Segs in Reference Population	Sum of Crashes	Sum of MVMT	Avg Crash Rate for Ref Pop.
RL - Rural Lo	RL - Rural Local (09	1	1	2	4.0	0.56
RMaC - Rura	RMaC - Rural Major Collector (07)	2	122	600	719.4	0.83
RMiA - Rural	RMiA - Rural Minor Arterial (06)	3	9	40	77.7	0.51
RMiC - Rural	RMiC - Rural Minor Collector (08)	4	54	113	176.8	0.64
UMiA - Urba	UMiA - Urban Minor Arterial (16)	5	2	9	17.6	0.51

Critical Rate Calculation												
Segment	Ref. Pop. Type	Begin Milepoint	End Milepoint	5 Year Crash Total	AADT	Segment Length	Pop. Type Number	MVMT	Segment Crash Rate	Ref. Pop. Crash Rate	Critical Rate	Over Critical
D0001.1	RMaC - Rural Major Collector (07)	0.41	0.70	2	1,700	0.29	2	0.90	2.59	0.83	2.97	Under
D0001.2	RMaC - Rural Major Collector (07)	0.70	6.53	26	1,700	5.83	2	18.09	1.46	0.83	1.22	**Over**
D0002.1	RMaC - Rural Major Collector (07)	0.00	4.30	15	4,620	4.30	2	36.26	0.41	0.83	1.10	Under
D0002.2	RMaC - Rural Major Collector (07)	4.30	8.35	4	1,890	4.05	2	13.97	0.25	0.83	1.27	Under
D0002.3	RMaC - Rural Major Collector (07)	8.35	9.05	0	1,890	0.70	2	2.41	0.00	0.83	2.01	Under
D0002.4	RMaC - Rural Major Collector (07)	9.05	12.18	3	1,280	3.13	2	7.31	0.41	0.83	1.46	Under
D0002.5	RMaC - Rural Major Collector (07)	12.18	15.31	5	1,160	3.13	2	6.63	0.75	0.83	1.49	Under
D0002.6	RMaC - Rural Major Collector (07)	15.31	20.86	5	1,160	5.55	2	11.75	0.43	0.83	1.32	Under
D0002-A.1	RMaC - Rural Major Collector (07)	0.48	3.17	9	2,010	2.69	2	9.87	0.91	0.83	1.36	Under
D0002-A.2	RMaC - Rural Major Collector (07)	3.17	5.19	5	1,420	2.02	2	5.23	0.96	0.83	1.59	Under
D0003.1	RMaC - Rural Major Collector (07)	0.23	2.88	8	1,850	2.65	2	8.95	0.89	0.83	1.39	Under
D0004.1	RMaC - Rural Major Collector (07)	0.00	1.26	3	1,700	1.26	2	3.91	0.77	0.83	1.72	Under
D0004.2	RMaC - Rural Major Collector (07)	1.26	3.07	5	1,700	1.81	2	5.62	0.95	0.83	1.56	Under
D0004.3	RMaC - Rural Major Collector (07)	3.07	3.33	1	1,700	0.26	2	0.81	1.03	0.83	3.13	Under
D0004.4	RMaC - Rural Major Collector (07)	3.33	5.91	3	1,700	2.58	2	8.00	0.37	0.83	1.43	Under
D0005.1	RMaC - Rural Major Collector (07)	0.16	3.91	3	430	3.75	2	2.94	1.02	0.83	1.88	Under
D0005.2	RMaC - Rural Major Collector (07)	3.91	6.14	1	350	2.23	2	1.42	0.47	0.83	2.44	Under
D0005.3	RMiA - Rural Minor Arterial (06)	6.14	7.41	8	2,620	1.27	3	6.07	1.26	0.51	1.07	**Over**
D0005.4	RMiA - Rural Minor Arterial (06)	7.41	8.72	2	4,040	1.31	3	9.66	0.24	0.51	0.94	Under
D0005.5	RMiC - Rural Minor Collector (08)	8.72	9.80	5	260	1.08	4	0.51	9.11	0.64	3.45	**Over**
D0005-A.1	RMaC - Rural Major Collector (07)	0.00	0.30	1	60	0.30	2	0.03	25.37	0.83	24.34	**Over**
D0005-B.1	RMaC - Rural Major Collector (07)	0.00	2.85	4	440	2.85	2	2.29	1.53	0.83	2.05	Under
D0006.1	RMaC - Rural Major Collector (07)	1.81	5.66	13	660	3.85	2	4.64	2.80	0.83	1.64	**Over**
D0007.1	RMiC - Rural Minor Collector (08)	2.71	4.16	5	2,510	1.45	4	6.64	0.75	0.64	1.22	Under
D0007.2	RMiC - Rural Minor Collector (08)	4.16	5.80	7	2,410	1.64	4	7.21	0.97	0.64	1.20	Under
D0007-A.1	RMaC - Rural Major Collector (07)	0.01	3.76	7	480	3.75	2	3.29	2.13	0.83	1.82	**Over**
D0007-A.2	RMaC - Rural Major Collector (07)	3.76	4.51	0	300	0.75	2	0.41	0.00	0.83	4.40	Under
D0009.1	RMaC - Rural Major Collector (07)	0.68	3.18	15	940	2.50	2	4.29	3.50	0.83	1.68	**Over**
D0009.2	RMaC - Rural Major Collector (07)	3.18	3.57	3	2310	0.39	2	1.64	2.03	0.83	2.31	Under
D0009.3	RMaC - Rural Major Collector (07)	3.57	8.72	10	1800	5.15	2	16.92	0.61	0.83	1.23	Under
D0009.4	RMiC - Rural Minor Collector (08)	3.57	8.72	1	1490	5.15	4	14.00	0.07	0.64	1.03	Under
D0009.5	RMiC - Rural Minor Collector (08)	8.72	10.08	2	250	1.36	4	0.62	3.22	0.64	3.11	**Over**
D0010.1	RMaC - Rural Major Collector (07)	1.55	2.35	4	2890	0.80	2	4.22	0.95	0.83	1.68	Under
D0010.2	RMaC - Rural Major Collector (07)	2.35	2.77	6	7940	0.42	2	6.09	0.99	0.83	1.53	Under
D0010.3	RMaC - Rural Major Collector (07)	2.77	8.50	4	560	5.73	2	5.86	0.68	0.83	1.54	Under
D0011.1	RMaC - Rural Major Collector (07)	1.27	1.49	2	1970	0.22	2	0.79	2.95	0.83	3.16	Under
D0011.2	RMaC - Rural Major Collector (07)	1.49	3.64	7	2640	2.15	2	10.36	0.71	0.83	1.35	Under
D0011.3	RMaC - Rural Major Collector (07)	3.64	4.67	0	2410	1.03	2	4.53	0.06	0.83	1.65	Under
D0011.4	RMaC - Rural Major Collector (07)	4.67	8.79	4	2410	4.12	2	18.12	0.22	0.83	1.21	Under
D0011.5	RMaC - Rural Major Collector (07)	8.79	9.29	1	1700	0.50	2	1.55	0.64	0.83	2.36	Under
D0011.6	RMaC - Rural Major Collector (07)	9.29	13.91	3	1700	4.62	2	14.33	0.22	0.83	1.27	Under
D0011.7	RMaC - Rural Major Collector (07)	13.91	14.39	1	1700	0.48	2	1.49	0.67	0.83	2.40	Under
D0011.8	RMaC - Rural Major Collector (07)	14.39	16.49	4	820	2.10	2	3.14	1.17	0.83	1.84	Under
D0012.1	RMiC - Rural Minor Collector (08)	0.00	5.16	0	150	5.16	4	1.41	0.00	0.64	2.10	Under
D0012.2	RMaC - Rural Major Collector (07)	5.16	6.49	1	120	1.33	2	0.29	3.43	0.83	5.33	Under
D0013.1	RMaC - Rural Major Collector (07)	0.00	5.10	5	500	5.10	2	4.65	0.97	0.83	1.64	Under

Corridor Health Tool Results

Corridor Health Results (ODOT Segments)

DKS ID	Road Name	Start Description	End Description	Start MP	End MP	Length (mi)	Overall Health (num)	Overall Health (desc)	Safety (num)	Safety (desc)	Geometrics (num)	Geometrics (desc)	Traffic Operations (num)	Traffic Operations (desc)	Pavement (num)	Pavement (desc)	Access Density (num)	Access Density (desc)
215-1.02	OR 126	US 20 Off Ramp / OR 126 On Ramp	Lane County Line	0.05	13.02	12.97	96.2	Good	1.0	Good	0.9	Good	1.0	Good	0.9	Good	1.0	N/A
212-1.05	OR 228	Old Holley Rd	Sweet Home UGB	17.08	20.59	3.51	83.4	Fair	1.0	Good	0.5	Fair	1.0	Good	0.5	Fair	1.0	N/A
212-1.04	OR 228	Upper Calapooia Dr	Old Holley Rd	16.74	17.08	0.34	95.0	Good	1.0	Good	1.0	Good	1.0	Good	0.5	Fair	1.0	N/A
212-1.03	OR 228	Brush Creek Rd	Upper Calapooia Dr	13.55	16.74	3.19	83.0	Fair	1.0	Good	0.5	Fair	1.0	Good	0.5	Fair	1.0	N/A
212-1.02	OR 228	Brownsville UGB	Brush Creek Rd	6.58	13.55	6.97	83.6	Fair	1.0	Good	0.5	Fair	1.0	Good	0.5	Fair	1.0	N/A
212-1.01	OR 228	Halsey UGB	Brownsville UGB	0.37	5.48	5.11	94.0	Good	1.0	Good	1.0	Good	1.0	Good	0.5	Fair	1.0	N/A
211-1.12	OR 226	Kingston-Lyons Dr	Lyons UGB	21.89	23.54	1.65	65.0	Poor	0.5	Fair	0.5	Fair	1.0	Good	0.5	Fair	1.0	N/A
211-1.11	OR 226	Kingston Jordan Rd	Kingston-Lyons Dr	18.58	21.89	3.31	65.0	Poor	0.5	Fair	0.5	Fair	1.0	Good	0.5	Fair	1.0	N/A
211-1.10	OR 226	Camp Morrison Dr	Kingston Jordan Rd	16.47	18.58	2.11	65.0	Poor	0.5	Fair	0.5	Fair	1.0	Good	0.5	Fair	1.0	N/A
211-1.09	OR 226	Richardson Gap Rd	Camp Morrison Dr	12	16.47	4.47	68.7	Poor	0.5	Fair	0.6	Fair	1.0	Good	0.5	Fair	1.0	N/A
211-1.08	OR 226	Scio UGB	Richardson Gap Rd	9.99	12	2.01	68.5	Poor	0.5	Fair	0.6	Fair	1.0	Good	0.5	Fair	1.0	N/A
211-1.07	OR 226	Gilkey Rd	Scio UGB	9.34	9.45	0.11	95.0	Good	1.0	Good	1.0	Good	1.0	Good	0.5	Fair	1.0	N/A
211-1.06	OR 226	Montgomery Dr	Gilkey Rd	7.2	9.34	2.14	82.5	Fair	1.0	Good	0.5	Fair	1.0	Good	0.5	Fair	1.0	N/A
211-1.05	OR 226	Fish Hatchery Dr	Montgomery Dr	4.3	7.2	2.9	82.5	Fair	1.0	Good	0.5	Fair	1.0	Good	0.5	Fair	1.0	N/A
211-1.04	OR 226	Brewster Rd	Fish Hatchery Dr	3.99	4.3	0.31	95.0	Good	1.0	Good	1.0	Good	1.0	Good	0.5	Fair	1.0	N/A
211-1.03	OR 226	Crabtree Dr	Brewster Rd	3.12	3.99	0.87	95.0	Good	1.0	Good	1.0	Good	1.0	Good	0.5	Fair	1.0	N/A
211-1.02	OR 226	Hungry Hill Dr / Cold Springs Rd	Crabtree Dr	2.48	3.12	0.64	95.0	Good	1.0	Good	1.0	Good	1.0	Good	0.5	Fair	1.0	N/A
211-1.01	OR 226	US 20	Hungry Hill Dr / Cold Springs Rd	0	2.48	2.48	91.2	Good	1.0	Good	0.8	Good	1.0	Good	0.5	Fair	1.0	N/A
210-1.13	OR 34	Denny School Rd	Lebanon UGB	15.67	16.51	0.84	90.0	Good	1.0	Good	1.0	Good	1.0	Good	0.5	Fair	0.5	Fair
210-1.12	OR 34	Tangent Dr	Denny School Rd	13.27	15.67	2.4	73.5	Fair	1.0	Good	1.0	Good	0.0	Poor	0.5	Fair	0.8	Good
210-1.11	OR 34	Goltra Rd	Tangent Dr	12.77	13.27	0.5	95.0	Good	1.0	Good	1.0	Good	1.0	Good	0.5	Fair	1.0	Good
210-1.10	OR 34	Seven Mile Ln	Goltra Rd	10.77	12.77	2	75.0	Fair	1.0	Good	1.0	Good	0.0	Poor	0.5	Fair	1.0	Good
210-1.09	OR 34	Columbus St	Seven Mile Ln	9.16	10.77	1.61	50.2	Poor	0.5	Fair	1.0	Good	0.0	Poor	0.8	Good	0.1	Poor
210-1.08	OR 34	Tangent UGB	Columbus St	7.66	9.16	1.5	71.9	Fair	0.6	Fair	0.8	Good	1.0	Good	1.0	Good	0.0	Poor
210-1.07	OR 34	Looney Ln	Tangent UGB	7.03	7.5	0.47	89.3	Good	1.0	Good	1.0	Good	1.0	Good	1.0	Good	0.0	Poor
210-1.06	OR 34	Oakville Rd	Looney Ln	5.36	7.03	1.67	90.0	Good	1.0	Good	1.0	Good	1.0	Good	1.0	Good	0.0	Poor
210-1.05	OR 34	Oakville Rd	Oakville Rd	5.1	5.36	0.26	90.0	Good	1.0	Good	1.0	Good	1.0	Good	1.0	Good	0.0	Poor
210-1.04	OR 34	Riverside Dr	Oakville Rd	3.03	5.1	2.07	90.0	Good	1.0	Good	1.0	Good	1.0	Good	1.0	Good	0.0	Poor
210-1.03	OR 34	Peoria Rd	Riverside Dr	1.19	3.03	1.84	89.3	Good	1.0	Good	1.0	Good	1.0	Good	1.0	Good	0.0	Poor
210-1.02	OR 34	OR 34	Peoria Rd	0.32	1.19	0.87	42.3	Poor	0.0	Poor	1.0	Good	0.5	Poor	0.6	Fair	0.2	Poor
164-2.01	OR 164	I 5 N On Ramp	I 5 S On Ramp	8.13	8.43	0.3	92.5	Good	1.0	Good	1.0	Good	1.0	Good	0.3	Poor	1.0	N/A
164-1.02	OR 164	Scravel Hill Rd / Santiam Bluffs Rd	I 5 N On Ramp	7.29	8.13	0.84	95.0	Good	1.0	Good	1.0	Good	1.0	Good	0.5	Fair	1.0	N/A
164-1.01	OR 164	Jefferson UGB	Scravel Hill Rd / Santiam Bluffs Rd NE	6.24	7.29	1.05	95.0	Good	1.0	Good	1.0	Good	1.0	Good	0.5	Fair	1.0	N/A
162-1.01	OR 22	Marion County Line	US 20	60.79	81.81	21.02	63.9	Poor	0.3	Poor	0.9	Good	0.5	Fair	1.0	Good	1.0	N/A
058-1.09	OR 99E	Substation Rd	Harrisburg UGB	25.2	27.69	2.49	95.0	Good	1.0	Good	1.0	Good	1.0	Good	0.5	Fair	1.0	N/A
058-1.08	OR 99E	Irish Bend Rd / Lake Creek Dr	Substation Rd	21.39	25.2	3.81	95.0	Good	1.0	Good	1.0	Good	1.0	Good	0.5	Fair	1.0	N/A
058-1.07	OR 99E	Halsey UGB	Irish Bend Rd / Lake Creek Dr	20.37	21.39	1.02	91.3	Good	1.0	Good	0.9	Good	1.0	Good	0.4	Fair	1.0	N/A
058-1.06	OR 99E	Oak Plain Dr	Halsey UGB	17.35	19.26	1.91	82.5	Fair	1.0	Good	0.5	Fair	1.0	Good	0.5	Fair	1.0	N/A
058-1.05	OR 99E	Linnwest Dr	Oak Plain Dr	16.85	17.35	0.5	82.5	Fair	1.0	Good	0.5	Fair	1.0	Good	0.5	Fair	1.0	N/A
058-1.04	OR 99E	Fayetteville Dr / Boston Mill Dr	Linnwest Dr	14.33	16.85	2.52	84.2	Fair	1.0	Good	0.6	Fair	1.0	Good	0.5	Fair	1.0	N/A
058-1.03	OR 99E	Bell Plain Dr	Fayetteville Dr / Boston Mill Dr	12.36	14.33	1.97	83.1	Fair	1.0	Good	0.5	Fair	1.0	Good	0.5	Fair	1.0	N/A
058-1.02	OR 99E	Tangent UGB	Bell Plain Dr	9.21	12.36	3.15	84.3	Fair	1.0	Good	0.6	Fair	1.0	Good	0.5	Fair	1.0	N/A
058-1.01	OR 99E	Albany UGB	Tangent UGB	6.3	6.58	0.28	95.0	Good	1.0	Good	1.0	Good	1.0	Good	0.5	Fair	1.0	N/A
033-1.01	OR 34	Corvallis UGB	OR 34	56.14	56.8	0.66	60.0	Poor	0.0	Poor	1.0	Good	1.0	Good	0.5	Fair	1.0	N/A
016-1.14	US 20	OR 22	Jefferson County Line	74.9	80.77	5.87	50.0	Poor	0.0	Poor	1.0	Good	0.5	Fair	0.5	Fair	1.0	Good
016-1.13	US 20	OR 126 On Ramp	OR 22	71.69	74.9	3.21	54.3	Poor	0.0	Poor	0.8	Good	1.0	Good	0.5	Fair	1.0	Good
016-1.12	US 20	US 20 Off Ramp / US 20 On Ramp	OR 126 On Ramp	71.52	71.69	0.17	60.0	Poor	0.0	Poor	1.0	Good	1.0	Good	0.5	Fair	1.0	Good
016-1.11	US 20	Quartzville Rd	US 20 Off Ramp / US 20 On Ramp	32.98	71.52	38.54	53.0	Poor	0.2	Poor	0.6	Fair	1.0	Good	0.3	Poor	1.0	Good
016-1.10	US 20	Sweet Home UGB	Quartzville Rd	31.3	32.98	1.68	77.7	Fair	0.5	Fair	1.0	Good	1.0	Good	0.5	Fair	1.0	Good
016-1.09	US 20	Liberty Rd / Fairview Rd	Sweet Home UGB	22.82	26.61	3.79	86.6	Good	1.0	Good	1.0	Good	1.0	Good	0.5	Fair	0.3	Poor
016-1.08	US 20	Fairview Rd	Liberty Rd / Fairview Rd	19.38	22.82	3.44	85.0	Good	1.0	Good	1.0	Good	1.0	Good	0.5	Fair	0.0	Poor
016-1.07	US 20	Sodaville Waterloo Rd / W Waterloo Rd	Fairview Rd	18.67	19.38	0.71	90.0	Good	1.0	Good	1.0	Good	1.0	Good	0.5	Fair	0.5	Fair
016-1.06	US 20	Cascade Dr / Old Santiam Hwy	Sodaville Waterloo Rd / W Waterloo Rd	17.73	18.67	0.94	90.0	Good	1.0	Good	1.0	Good	1.0	Good	0.5	Fair	0.5	Fair
016-1.05	US 20	Lebanon UGB	Cascade Dr / Old Santiam Hwy	16.46	17.73	1.27	87.8	Good	1.0	Good	0.9	Good	1.0	Good	0.5	Fair	0.5	Fair
016-1.04	US 20	Spicer Dr / Tennessee School Rd	Lebanon UGB	9.82	12.24	2.42	57.5	Poor	0.5	Fair	1.0	Good	0.5	Fair	0.5	Fair	0.0	Poor
016-1.03	US 20	OR 226	Spicer Dr / Tennessee School Rd	6.55	9.82	3.27	61.5	Poor	0.5	Fair	0.9	Good	0.7	Good	0.5	Fair	0.3	Poor
016-1.02	US 20	Knox Butte Rd	OR 226	6.46	6.55	0.09	57.5	Poor	0.5	Fair	1.0	Good	0.5	Fair	0.5	Fair	0.0	Poor
016-1.01	US 20	Albany UGB	Knox Butte Rd	2.61	6.46	3.85	57.4	Poor	0.5	Fair	0.9	Good	0.5	Fair	0.5	Fair	0.0	Poor

Corridor Health Results (County Segments)

DKS ID	Road Name	Start Description	End Description	Start MP	End MP	Length (mi)	Overall Health (num)	Rounded Overall Health Score	Overall Health (desc)	Safety (num)	Safety (desc)	Geometrics (num)	Geometrics (desc)	Traffic Operations (num)	Traffic Operations (desc)	Pavement (num)	Pavement (desc)	Access Density (num)	Access Density (desc)
D0002.6	Peoria Rd	Irish Bend Lp / Lake (	Harrisburg UGB	15.31	20.86	5.55	100.0	100.0	Good	1.0	Good	1.0	Good	1.0	Good	1.0	Good	1.0	N/A
D0002.5	Peoria Rd	Pine Grove Dr / Ame	Irish Bend Lp / Lake	12.18	15.31	3.13	99.2	100.0	Good	1.0	Good	1.0	Good	1.0	Good	1.0	Good	1.0	N/A
D0002.1	Peoria Rd	OR 34	Church Dr	0	4.3	4.3	98.1	100.0	Good	1.0	Good	0.9	Good	1.0	Good	1.0	Good	1.0	N/A
D0650.1	Cold Springs Rd	Crabtree Dr	OR 226	0	0.32	0.32	95.2	95.0	Good	1.0	Good	1.0	Good	1.0	Good	0.5	Fair	1.0	N/A
D0003.1	American Dr	Halsey UGB	Nicewood Ln	0.23	2.88	2.65	95.0	95.0	Good	1.0	Good	1.0	Good	1.0	Good	0.5	Fair	1.0	N/A
D0015.2	Gap Rd	Lake Creek Rd	Brownsville UGB	9.8	10.39	0.59	95.0	95.0	Good	1.0	Good	1.0	Good	1.0	Good	0.5	N/A	1.0	N/A
D0024.3	Brewster Rd	Lacomb Dr	OR 226	3.88	7.7	3.82	95.0	95.0	Good	1.0	Good	1.0	Good	1.0	Good	0.5	Fair	1.0	N/A
D0217-A.1	American Dr	Nicewood Ln	Creek Dr	0	1.61	1.61	95.0	95.0	Good	1.0	Good	1.0	Good	1.0	Good	0.5	Fair	1.0	N/A
D0722.1	Bellinger Scale Rd	Berlin Rd	Mount Hope Dr	0	2.46	2.46	95.0	95.0	Good	1.0	Good	1.0	Good	1.0	Good	0.5	Fair	1.0	N/A
D0007-A.2	Crabtree Dr	Cold Springs Rd	OR 226	3.76	4.51	0.75	90.4	90.0	Good	1.0	Good	0.6	Fair	1.0	Good	1.0	Good	1.0	N/A
D0722.2	Bellinger Scale Rd	Mount Hope Dr	Old Bellinger Scale I	2.46	4.18	1.72	90.0	90.0	Good	1.0	Good	1.0	Good	1.0	Good	0.0	Poor	1.0	N/A
D0024.1	Brewster Rd	Lebanon UGB	Golden Valley Dr	1.14	1.55	0.41	90.0	90.0	Good	1.0	Good	1.0	Good	1.0	Good	0.0	Poor	1.0	N/A
D0024.2	Brewster Rd	Golden Valley Dr	Lacomb Dr	1.55	3.88	2.33	90.0	90.0	Good	1.0	Good	1.0	Good	1.0	Good	0.0	Poor	1.0	N/A
D0749.2	Pleasant Valley Rd	Berlin Rd	McDowell Creek Dr	1	4.74	3.74	89.9	90.0	Good	1.0	Good	0.6	Fair	1.0	Good	1.0	Good	1.0	N/A
D0004.1	Jefferson-Scio Dr	Marion County Line	Kelly Rd	0	1.26	1.26	89.7	90.0	Good	1.0	Good	0.6	Fair	1.0	Good	1.0	Good	1.0	N/A
D0032.1	Oakville Rd	Riverside Dr	OR 34	0	3.73	3.73	87.9	90.0	Good	1.0	Good	0.5	Fair	1.0	Good	1.0	Good	1.0	N/A
D0002.2	Peoria Rd	Church Rd	Fayetteville Dr	4.3	8.35	4.05	87.5	90.0	Good	1.0	Good	0.5	Fair	1.0	Good	1.0	Good	1.0	N/A
D0002.3	Peoria Rd	Fayetteville Dr	Abraham Dr	8.35	9.05	0.7	87.5	90.0	Good	1.0	Good	0.5	Fair	1.0	Good	1.0	Good	1.0	N/A
D0002.4	Peoria Rd	Abraham Rd	American Dr / Pine	9.05	12.18	3.13	87.5	90.0	Good	1.0	Good	0.5	Fair	1.0	Good	1.0	Good	1.0	N/A
D0002-A.1	6th, Coburg Rd	Harrisburg UGB	Bowers Dr	0.48	3.17	2.69	87.5	90.0	Good	1.0	Good	0.5	Fair	1.0	Good	1.0	Good	1.0	N/A
D0002-A.2	Coburg Rd	Bowers Rd	Lane County Line	3.17	5.19	2.02	87.5	90.0	Good	1.0	Good	0.5	Fair	1.0	Good	1.0	Good	1.0	N/A
D0014.1	Diamond Hill Dr	Harrisburg UGB	Powerline Rd	1.08	1.96	0.88	87.5	90.0	Good	1.0	Good	0.5	Fair	1.0	Good	1.0	Good	1.0	N/A
D0014.2	Diamond Hill Dr	Powerline Rd	Weatherford Rd	1.96	3.64	1.68	87.5	90.0	Good	1.0	Good	0.5	Fair	1.0	Good	1.0	Good	1.0	N/A
D0014.3	Diamond Hill Dr	Weatherford Rd	North Coburg Rd	3.64	5.14	1.5	87.5	90.0	Good	1.0	Good	0.5	Fair	1.0	Good	1.0	Good	1.0	N/A
D0033.1	Scravel Hill Rd	OR 164	Kamph Dr NE	0	2.91	2.91	87.5	90.0	Good	1.0	Good	0.5	Fair	1.0	Good	1.0	Good	1.0	N/A
D0034.1	Dever Conner Rd, Conser Rd	I 5	Millersburg UGB	0	8	8	87.5	90.0	Good	1.0	Good	0.5	Fair	1.0	Good	1.0	Good	1.0	N/A
D0523.1	North Coburg Rd	Lane County Line	Bowers Rd	0	2.02	2.02	87.5	90.0	Good	1.0	Good	0.5	Fair	1.0	Good	1.0	Good	1.0	N/A
D0523.2	North Coburg Rd	Bowers Rd	Priceboro Dr	2.02	3.65	1.63	87.5	90.0	Good	1.0	Good	0.5	Fair	1.0	Good	1.0	Good	1.0	N/A
D0611.1	Stayton Scio Rd	Scio UGB	Slangal Dr	0.65	3.69	3.04	87.5	90.0	Good	1.0	Good	0.5	Fair	1.0	Good	1.0	Good	1.0	N/A
D0611.2	Stayton Scio Rd	Slangal Dr	Shelburn Rd	3.69	4.86	1.17	87.5	90.0	Good	1.0	Good	0.5	Fair	1.0	Good	1.0	Good	1.0	N/A
D0708.1	Denny School Rd	End of Road	End of Road	0	0.06	0.06	87.5	90.0	Good	1.0	Good	0.5	Fair	1.0	Good	1.0	Good	1.0	N/A
D0732.1	Sodaville Waterloo Rd	Sodaville UGB	US 20	0.31	2.04	1.73	87.5	90.0	Good	1.0	Good	0.5	Fair	1.0	Good	1.0	Good	1.0	N/A
D0777.1	South Main St	Rock Hill Dr	Lebanon UGB	0	0.22	0.22	87.5	90.0	Good	1.0	Good	0.5	Fair	1.0	Good	1.0	Good	1.0	N/A
D0728.2	Berlin Rd	McDowell Creek Dr	Marks Ridge Dr	2.06	3.85	1.79	87.5	85.0	Good	1.0	Good	0.5	Fair	1.0	Good	1.0	Good	1.0	N/A
D0412.1	Plainview Dr	Parker Rd	Sand Ridge Rd	0	1.53	1.53	87.4	85.0	Good	1.0	Good	0.5	Fair	1.0	Good	1.0	Good	1.0	N/A
D0004.2	Jefferson-Scio Dr	Kelly Rd	Shelburn Dr	1.26	3.07	1.81	87.4	85.0	Good	1.0	Good	0.5	Fair	1.0	Good	1.0	Good	1.0	N/A
D0020-B.3	Berlin Rd	Bellinger Scale Rd	Upper Berlin Rd	5.62	8.41	2.79	87.3	85.0	Good	1.0	Good	0.5	Fair	1.0	Good	1.0	Good	1.0	N/A
D0212.1	Oak Plain Dr	OR 99E	Creek Bend Rd	0.41	2.92	2.51	87.1	85.0	Good	1.0	Good	0.5	Fair	1.0	Good	1.0	Good	1.0	N/A
D0209.1	Potter Rd	Linn County 211	Abraham Dr	0	1.84	1.84	87.0	85.0	Good	1.0	Good	0.5	Fair	1.0	Good	1.0	Good	1.0	N/A
D0211.1	Potter Rd	Linn County 211	Creek Bend Rd	2.21	2.69	0.48	86.4	85.0	Good	1.0	Good	0.5	Fair	1.0	Good	0.9	Good	1.0	N/A
D0648.3	Fish Hatchery Dr	Meridian Rd	Larwood Dr	6.44	6.73	0.29	85.9	85.0	Good	1.0	Good	0.5	Fair	1.0	Good	0.8	Good	1.0	N/A
D0318.1	Kamph Dr, Lickskillet Rd	Knox Butte Rd	Scravel Hill Rd	0	3.63	3.63	85.9	85.0	Good	1.0	Good	0.5	Fair	1.0	Good	0.8	Good	1.0	N/A
D0719.1	River Dr	Lebanon UGB	River Dr, 1st St	0.94	1.73	0.79	85.8	85.0	Good	1.0	Good	0.4	Fair	1.0	Good	1.0	Good	1.0	N/A
D0009.3	Spicer Dr	Goltra Rd	Spicer Dr	3.57	8.72	5.15	85.0	85.0	Fair	1.0	Good	0.5	Fair	1.0	Good	0.9	Good	1.0	N/A
D0009.4	Spicer Dr	Spicer Dr	US 20	3.57	8.72	5.15	85.0	85.0	Fair	1.0	Good	0.5	Fair	1.0	Good	0.9	Good	1.0	N/A
D0020-B.1	Berlin Rd	Lebanon UGB	Waterloo Rd	1.53	5.35	3.82	84.4	85.0	Fair	1.0	Good	0.5	Fair	1.0	Good	0.7	Good	1.0	N/A
D0669.1	Richardson Gap Rd	Fich Hatchery Dr	Baptist Church Dr	0	3.27	3.27	84.1	85.0	Fair	1.0	Good	0.5	Fair	1.0	Good	0.7	Fair	1.0	N/A
D0731.1	Waterloo Rd	Waterloo UGB	US 20	0.49	1.16	0.67	84.1	85.0	Fair	1.0	Good	0.4	Fair	1.0	Good	1.0	Good	1.0	N/A
D0932.1	Quartzville Rd	US 20	Old Hufford Dr	0	0.62	0.62	84.0	85.0	Fair	1.0	Good	0.5	Fair	1.0	Good	0.6	Fair	1.0	N/A
D0122.1	Tangent Dr	Tangent UGB	Oakville Rd	0.34	3.34	3	83.9	85.0	Fair	1.0	Good	0.6	Fair	1.0	Good	0.5	Fair	1.0	N/A
D0912.1	Quartzville Rd	Old Hufford Dr	Sunnyside Rd	0	0.5	0.5	83.3	85.0	Fair	1.0	Good	0.5	Fair	1.0	Good	0.6	Fair	1.0	N/A
D0014.4	Diamond Hill Dr	North Coburg Rd	I 5	5.14	8.22	3.08	83.0	85.0	Fair	1.0	Good	0.5	Fair	1.0	Good	0.6	Fair	1.0	N/A
D0014.5	Diamond Hill Dr	I 5	Gap Rd	5.14	8.22	3.08	83.0	85.0	Fair	1.0	Good	0.5	Fair	1.0	Good	0.6	Fair	1.0	N/A
D0425.1	Brownsville Rd	Brownsville UGB	Harrison Rd	0.93	5.41	4.48	82.9	85.0	Fair	1.0	Good	0.5	Fair	1.0	Good	0.5	Fair	1.0	N/A
D0906.1	Pleasant Valley Rd	Sweet Home UGB	North River Dr	0.14	0.28	0.14	82.9	85.0	Fair	1.0	Good	0.5	Fair	1.0	Good	0.5	Fair	1.0	N/A
D0716.1	Cascade Dr	US 20	Sodaville Rd	0	1.18	1.18	82.8	85.0	Fair	1.0	Good	0.5	Fair	1.0	Good	0.5	Fair	1.0	N/A
D0730.2	Liberty Rd	US 20	Mountain Home Dr	5.36	6.06	0.7	82.7	85.0	Fair	1.0	Good	0.5	Fair	1.0	Good	0.5	Fair	1.0	N/A
D0676.1	Meridian Rd	Fish Hatchery Dr	Lacomb Dr / East La	0	2.98	2.98	82.7	85.0	Fair	1.0	Good	0.5	Fair	1.0	Good	0.5	Fair	1.0	N/A
D0739.1	Rock Hill Dr	Sand Ridge Rd	Stoltz Hill Rd	0	3.56	3.56	82.6	85.0	Fair	1.0	Good	0.5	Fair	1.0	Good	0.5	Fair	1.0	N/A
D0005.2	Shelburn Dr	Slangal Dr	Stayton Scio Rd	3.91	6.14	2.23	82.5	85.0	Fair	1.0	Good	0.5	Fair	1.0	Good	0.5	Fair	1.0	N/A
D0010.3	Sand Ridge Rd	Denny School Rd	Plainview Dr	2.77	8.5	5.73	82.5	85.0	Fair	1.0	Good	0.5	Fair	1.0	Good	0.5	Fair	1.0	N/A
D0004.3	Jefferson-Scio Dr	Shelburn Dr	Jefferson-Scio Dr	3.07	3.33	0.26	82.5	85.0	Fair	1.0	Good	0.5	Fair	1.0	Good	0.5	Fair	1.0	N/A
D0007.1	Knox Butte Rd	Millersburg UGB	Lickskillet Rd	2.71	4.16	1.45	82.5	85.0	Fair	1.0	Good	0.5	Fair	1.0	Good	0.5	Fair	1.0	N/A
D0007.2	Knox Butte Rd	Lickskillet Rd	US 20	4.16	5.8	1.64	82.5	85.0	Fair	1.0	Good	0.5	Fair	1.0	Good	0.5	Fair	1.0	N/A
D0020-L.1	Lacomb Dr	Brewster Rd	Old Bellinger Scale I	0	3.6	3.6	82.5	85.0	Fair	1.0	Good	0.5	Fair	1.0	Good	0.5	Fair	1.0	N/A
D0023.1	Lake Creek Dr	OR 99E	Seefeld Dr	0	5.02	5.02	82.5	85.0	Fair	1.0	Good	0.5	Fair	1.0	Good	0.5	Fair	1.0	N/A
D0025.1	Richardson Gap Rd	Fish Hatchery Dr	Montgomery Dr	0	2.03	2.03	82.5	85.0	Fair	1.0	Good	0.5	Fair	1.0	Good	0.5	Fair	1.0	N/A
D0025.2	Richardson Gap Rd	Montgomery Dr	OR 226	2.03	4.66	2.63	82.5	85.0	Fair	1.0	Good	0.5	Fair	1.0	Good	0.5	Fair	1.0	N/A
D0217.1	American Dr	Creek Dr	Peoria Rd	2.13	2.93	0.8	82.5	85.0	Fair	1.0	Good	0.5	Fair	1.0	Good	0.5	Fair	1.0	N/A

D0218.1	Powerline Rd	Substation Dr	OR 99E	0	0.66	0.66	82.5	85.0 Fair	1.0 Good	0.5 Fair	1.0 Good	0.5 Fair	1.0 N/A
D0222.1	Lake Creek Dr	Peoria Rd	OR 99E	3.6	7.77	4.17	82.5	85.0 Fair	1.0 Good	0.5 Fair	1.0 Good	0.5 Fair	1.0 N/A
D0232.1	Priceboro Dr	Harrisburg UGB	Weatherford Rd	0	3.24	3.24	82.5	85.0 Fair	1.0 Good	0.5 Fair	1.0 Good	0.5 Fair	1.0 N/A
D0234.1	Bowers Rd	Coburg Rd	North Coburg Rd	0	3.23	3.23	82.5	85.0 Fair	1.0 Good	0.5 Fair	1.0 Good	0.5 Fair	1.0 N/A
D0508.1	Lake Creek Dr	Seefeld Dr	Gap Rd	0	1.74	1.74	82.5	85.0 Fair	1.0 Good	0.5 Fair	1.0 Good	0.5 Fair	1.0 N/A
D0522.1	North Coburg Rd	Priceboro Rd	Diamond Hill Dr	0	2	2	82.5	85.0 Fair	1.0 Good	0.5 Fair	1.0 Good	0.5 Fair	1.0 N/A
D0648.1	Fish Hatchery Dr	OR 226	Richardson Gap Rd	0	3.1	3.1	82.5	85.0 Fair	1.0 Good	0.5 Fair	1.0 Good	0.5 Fair	1.0 N/A
D0714.1	South 5th St	Rock Hill Dr	Lebanon UGB	0	0.43	0.43	82.5	85.0 Fair	1.0 Good	0.5 Fair	1.0 Good	0.5 Fair	1.0 N/A
D0724.1	Golden Valley Dr	Brewster Rd	Mount Hope Dr	0	4.04	4.04	82.5	85.0 Fair	1.0 Good	0.5 Fair	1.0 Good	0.5 Fair	1.0 N/A
D0749.1	Pleasant Valley Rd	Ridgeway Rd	Berlin Rd	0	1	1	82.5	85.0 Fair	1.0 Good	0.5 Fair	1.0 Good	0.5 Fair	1.0 N/A
D0750.1	Berlin Rd	Marks Ridge Dr	Pleasant Valley Rd	0	1.42	1.42	82.5	85.0 Fair	1.0 Good	0.5 Fair	1.0 Good	0.5 Fair	1.0 N/A
D0912.2	Quartzville Rd	North River Dr	Forest Rd	0.5	11.5	11	82.5	85.0 Fair	1.0 Good	0.5 Fair	1.0 Good	0.5 Fair	1.0 N/A
D0916.1	Wiley Creek Dr	Sweet Home UGB	Forest Roads	0.42	1.6	1.18	82.5	85.0 Fair	1.0 Good	0.5 Fair	1.0 Good	0.5 Fair	1.0 N/A
D0521.2	Priceboro Dr	Weatherford Rd	North Coburg Rd	1.28	3.49	2.21	82.5	80.0 Fair	1.0 Good	0.5 Fair	1.0 Good	0.5 Fair	1.0 N/A
D0607.1	Kingston Jordan Rd	Huntley Rd	Sandner Dr	0	1.63	1.63	82.2	80.0 Fair	1.0 Good	0.5 Fair	1.0 Good	0.5 Fair	1.0 N/A
D0026.1	Linnwest Dr	OR 99E	Harrison Rd	0	4.54	4.54	82.2	80.0 Fair	1.0 Good	0.5 Fair	1.0 Good	0.5 Fair	1.0 N/A
D0622.1	Kelly Rd	Jefferson-Scio Dr	Gilkey Rd	0	3.01	3.01	81.9	80.0 Fair	1.0 Good	0.6 Fair	1.0 Good	0.3 Poor	1.0 N/A
D0004.4	Jefferson-Scio Dr	Jefferson-Scio Dr	Scio UGB	3.33	5.91	2.58	81.9	80.0 Fair	1.0 Good	0.5 Fair	1.0 Good	0.5 Fair	1.0 N/A
D0767.1	Northern Dr	Mountain Home Dr	Brownsville UGB	3.72	5.73	2.01	80.1	80.0 Fair	1.0 Good	0.4 Fair	1.0 Good	0.5 Fair	1.0 N/A
D0707.1	Airport Dr	Lebanon UGB	Denny School Rd	0.78	1.87	1.09	79.3	80.0 Fair	1.0 Good	0.8 Good	0.5 Fair	0.5 N/A	1.0 N/A
D0707.2	Denny School Rd	Airport Rd	Sand Ridge Rd	0.78	1.87	1.09	79.3	80.0 Fair	1.0 Good	0.8 Good	0.5 Fair	0.5 N/A	1.0 N/A
D0011.4	7 Mile Ln	Tangent Dr	Boston Mill Rd / 7 N	4.67	8.79	4.12	78.7	80.0 Fair	1.0 Good	0.3 Fair	1.0 Good	0.5 Fair	1.0 N/A
D0031.2	Sodaville Rd	Cascade Dr	Sodaville UGB	0.36	1.25	0.89	78.0	80.0 Fair	1.0 Good	0.5 Fair	1.0 Good	0.1 Poor	1.0 N/A
D0020-L.3	Lacomb Dr	Kowitz Rd	Bellinger Scale Rd	3.66	4.41	0.75	77.5	80.0 Fair	1.0 Good	0.5 Fair	1.0 Good	0.0 Poor	1.0 N/A
D0031.1	Sodaville Rd	Lebanon UGB	Cascade Dr	0	0.36	0.36	77.5	80.0 Fair	1.0 Good	0.5 Fair	1.0 Good	0.0 Poor	1.0 N/A
D0604.1	Cole School Rd	Richardson Gap Rd	Stayton Scio Rd	0	3.24	3.24	77.5	80.0 Fair	1.0 Good	0.5 Fair	1.0 Good	0.0 Poor	1.0 N/A
D0606.1	Kingston Jordan Rd	Sander Dr	Kingston Jordan Rd	2.8	4.83	2.03	77.5	80.0 Fair	1.0 Good	0.5 Fair	1.0 Good	0.0 Poor	1.0 N/A
D0729.1	McDowell Creek Dr	Fairview Rd	Pleasant Valley Rd	0	2.92	2.92	77.5	80.0 Fair	1.0 Good	0.5 Fair	1.0 Good	0.0 Poor	1.0 N/A
D0005.1	Shelburn Dr	Jefferson-Scio Dr	Slangal Dr	0.16	3.91	3.75	77.1	75.0 Fair	1.0 Good	0.1 Poor	1.0 Good	0.9 Good	1.0 N/A
D0906.2	Pleasant Valley Rd	North River Dr	Ridgeway Rd	0.28	1.01	0.73	76.7	75.0 Fair	1.0 Good	0.1 Poor	1.0 Good	1.0 Good	1.0 N/A
D0015.1	Gap Rd	Diamond Hill Dr	Lake Creek Dr	2.78	9.8	7.02	76.7	75.0 Fair	0.5 Fair	1.0 Good	1.0 Good	0.4 Fair	1.0 N/A
D0339.1	Goltra Rd	Spicer Dr	Midway Rd	0	1.69	1.69	76.4	75.0 Fair	1.0 Good	0.3 Poor	1.0 Good	0.5 Fair	1.0 N/A
D0017.1	Brush Creek Rd	OR 228	Lane County Line	0	6.42	6.42	75.8	75.0 Fair	0.5 Fair	0.7 Good	1.0 Good	1.0 Good	1.0 N/A
D0012.1	Bell Plain Dr, Church Dr	Oakville Rd	OR 99E	0	5.16	5.16	75.2	75.0 Fair	1.0 Good	0.1 Poor	1.0 Good	0.8 Good	1.0 N/A
D0019.1	Plainview Dr	7 Mile Ln	Parker Rd	0	1.01	1.01	75.0	75.0 Fair	1.0 Good	0.0 Poor	1.0 Good	1.0 Good	1.0 N/A
D0206.1	Abraham Dr	Peoria Rd	Potter Rd	0.08	1.88	1.8	75.0	75.0 Fair	1.0 Good	0.0 Poor	1.0 Good	1.0 Good	1.0 N/A
D0337.2	Three Lakes Rd	Midway Rd	7 Mile Ln	2.2	3.02	0.82	75.0	75.0 Fair	1.0 Good	0.0 Poor	1.0 Good	1.0 Good	1.0 N/A
D0338.1	Midway Rd	Goltra Rd	Three Lakes Rd	0	2.74	2.74	75.0	75.0 Fair	1.0 Good	0.0 Poor	1.0 Good	1.0 Good	1.0 N/A
D0612.1	Slangal Dr	Shelburn Dr	Stayton Scio Rd	0	0.87	0.87	75.0	75.0 Fair	1.0 Good	0.0 Poor	1.0 Good	1.0 Good	1.0 N/A
D0838.1	Fish Hatchery Dr	Larwood Dr	Tree Farm Rd	0	1.54	1.54	75.0	75.0 Fair	1.0 Good	0.0 Poor	1.0 Good	1.0 Good	1.0 N/A
D0839.1	Tree Farm Rd	Fish Hatchery Dr	Forest Roads	0	0.86	0.86	75.0	75.0 Fair	1.0 Good	0.0 Poor	1.0 Good	1.0 Good	1.0 N/A
D0011.8	7 Mile Ln	Linnwest Dr	Brownsville UGB	14.39	16.49	2.1	74.8	75.0 Fair	1.0 Good	0.0 Poor	1.0 Good	1.0 Good	1.0 N/A
D0755.1	Old Holley Rd	Sweet Home UGB	OR 228	0.11	4.37	4.26	74.2	75.0 Fair	1.0 Good	0.1 Poor	1.0 Good	0.6 Fair	1.0 N/A
D0628.1	Gilkey Rd	OR 226	Kelly Rd	0	4.4	4.4	73.9	75.0 Fair	1.0 Good	0.0 Poor	1.0 Good	0.9 Good	1.0 N/A
D0013.2	Boston Mill Dr, Saddle Butte Rd	OR 99E	Boston Mill Dr	5.1	9.63	4.53	73.6	75.0 Fair	1.0 Good	0.0 Poor	1.0 Good	0.9 Good	1.0 N/A
D0741.1	Sodaville Mountain Home Rd	Sodaville UGB	Mountain Home Dr	0.36	5.86	5.5	73.5	75.0 Fair	1.0 Good	0.0 Poor	1.0 Good	0.8 Good	1.0 N/A
D0722.3	Bellinger Scale Rd	Old Bellinger Scale R	Lacomb Dr	4.18	4.88	0.7	72.5	75.0 Fair	0.5 Fair	1.0 Good	1.0 Good	0.0 Poor	1.0 N/A
D0022.1	Tangent Dr	7 Mile Ln	Tangent UGB	0	2.43	2.43	71.7	70.0 Fair	1.0 Good	0.0 Poor	1.0 Good	0.6 Fair	1.0 N/A
D0742.2	Mountain Home Dr	Sodaville Mountain I	Liberty Rd	4.74	9.27	4.53	71.2	70.0 Fair	1.0 Good	0.0 Poor	1.0 Good	0.6 Fair	1.0 N/A
D0742.1	Mountain Home Dr	Northern Dr	Sodaville Mountain	0	4.74	4.74	70.8	70.0 Fair	1.0 Good	0.0 Poor	1.0 Good	0.6 Fair	1.0 N/A
D0673.1	Old Bellinger Scale Rd	Bellinger Scale Rd	Lacomb Dr	0	1.35	1.35	70.4	70.0 Fair	1.0 Good	0.0 Poor	1.0 Good	0.5 Fair	1.0 N/A
D0018.2	Sand Ridge Rd	Brownsville Rd	Brownsville Rd	3.11	3.62	0.51	70.4	70.0 Fair	1.0 Good	0.0 Poor	1.0 Good	0.5 Fair	1.0 N/A
D0723.1	Mount Hope Dr	Bellinger Scale Rd	Golden Valley Dr	0	1	1	70.2	70.0 Fair	1.0 Good	0.0 Poor	1.0 Good	0.5 Fair	1.0 N/A
D0728.1	Berlin Rd	Upper Berlin Rd	McDowell Creek Dr	0	2.06	2.06	70.0	70.0 Fair	1.0 Good	0.0 Poor	1.0 Good	0.5 Fair	1.0 N/A
D0010.1	Oak St	Lebanon UGB	Denny School Rd	1.55	2.35	0.8	70.0	70.0 Fair	1.0 Good	1.0 Good	0.0 Poor	0.0 Poor	1.0 N/A
D0010.2	Denny School Rd	Oak St	Sand Ridge Rd	2.35	2.77	0.42	70.0	70.0 Fair	1.0 Good	1.0 Good	0.0 Poor	0.0 Poor	1.0 N/A
D0033.2	Scravel Hill Rd	Kamph Dr NE	Albany UGB	2.91	3.71	0.8	70.0	70.0 Fair	0.5 Fair	0.5 Fair	1.0 Good	1.0 Good	1.0 N/A
D0721.1	Waterloo Rd	Berlin Rd	Waterloo Rd	0	1.31	1.31	70.0	70.0 Fair	0.5 Fair	0.5 Fair	1.0 Good	1.0 Good	1.0 N/A
D0730.1	Fairview Rd	US 20	McDowell Creek Dr	1.75	2.65	0.9	70.0	70.0 Fair	0.5 Fair	0.5 Fair	1.0 Good	1.0 Good	1.0 N/A
D0011.5	7 Mile Ln	Boston Mill Dr	Plainview Dr	8.79	9.29	0.5	70.0	70.0 Fair	1.0 Good	0.0 Poor	1.0 Good	0.5 Fair	1.0 N/A
D0011.6	7 Mile Ln	Plainview Dr	Harrison Rd	9.29	13.91	4.62	70.0	70.0 Fair	1.0 Good	0.0 Poor	1.0 Good	0.5 Fair	1.0 N/A
D0011.7	7 Mile Ln	Linnwest Dr	Harrison Rd	13.91	14.39	0.48	70.0	70.0 Fair	1.0 Good	0.0 Poor	1.0 Good	0.5 Fair	1.0 N/A
D0032-A.2	Oakville Rd	Tangent Rd	Curch Dr	2.74	4.73	1.99	70.0	70.0 Fair	1.0 Good	0.0 Poor	1.0 Good	0.5 Fair	1.0 N/A
D0339.2	Goltra Rd	Midway Rd	OR 34	1.69	3.32	1.63	70.0	70.0 Fair	1.0 Good	0.0 Poor	1.0 Good	0.5 Fair	1.0 N/A
D0403.1	Tangent Dr	OR 34	7 Mile Ln	0	2.75	2.75	70.0	70.0 Fair	1.0 Good	0.0 Poor	1.0 Good	0.5 Fair	1.0 N/A
D0601.1	Stayton Scio Rd	Stayton Scio Rd	Stayton UGB	0	0.21	0.21	70.0	70.0 Fair	1.0 Good	0.0 Poor	1.0 Good	0.5 Fair	1.0 N/A
D0663.1	Tennessee Rd	Tennessee School Rc	Kgal Dr	0	1.22	1.22	70.0	70.0 Fair	1.0 Good	0.0 Poor	1.0 Good	0.5 Fair	1.0 N/A
D0671.1	Kowitz Rd	Lacomb Dr	Baptist Chruch Dr	0	1.01	1.01	70.0	70.0 Fair	1.0 Good	0.0 Poor	1.0 Good	0.5 Fair	1.0 N/A
D0701.1	Tennessee Rd	Gore Dr	Kgal Dr	4.59	5.49	0.9	70.0	70.0 Fair	1.0 Good	0.0 Poor	1.0 Good	0.5 Fair	1.0 N/A
D0702.1	Tennessee Rd	Lebanon UGB	Gore Dr	0.83	1.41	0.58	70.0	70.0 Fair	1.0 Good	0.0 Poor	1.0 Good	0.5 Fair	1.0 N/A
D0729.2	McDowell Creek Dr	Pleasant Valley Rd	Berlin Rd	2.92	4.2	1.28	69.8	70.0 Poor	0.5 Fair	0.5 Fair	1.0 Good	1.0 Good	1.0 N/A
D0013.1	Fayetteville Dr	Peoria Rd	OR 99E	0	5.1	5.1	68.1	70.0 Poor	1.0 Good	0.0 Poor	1.0 Good	0.3 Poor	1.0 N/A
D0904.1	McDowell Creek Dr, Sunnyside Rd	North River Dr	Berlin Rd	0	9.49	9.49	68.0	70.0 Poor	1.0 Good	0.0 Poor	1.0 Good	0.3 Poor	1.0 N/A
D0521.1	Weatherford Rd	Diamond Hill Dr	Priceboro Dr	0	1.28	1.28	67.5	70.0 Poor	1.0 Good	0.0 Poor	1.0 Good	0.3 Poor	1.0 N/A
D0670.1	Baptist Church Dr	Kowitz Rd	Richardson Gap Rd	2.97	3.28	0.31	65.6	65.0 Poor	1.0 Good	0.0 Poor	1.0 Good	0.1 Poor	1.0 N/A

D0412.3	Sand Ridge Rd	Rock Hill Dr	Brownsville Rd	1.66	2.62	0.96	65.3	65.0 Poor	1.0 Good	0.0 Poor	1.0 Good	0.0 Poor	1.0 N/A
D0230.1	Powerline Rd	Diamond Hill Dr	Substation Dr	6.12	7.28	1.16	65.0	65.0 Poor	0.5 Fair	0.5 Fair	1.0 Good	0.5 Fair	1.0 N/A
D0648.2	Fish Hatchery Dr	Richardson Gap Rd	Meridian Rd	3.1	6.44	3.34	65.0	65.0 Poor	0.5 Fair	0.5 Fair	1.0 Good	0.5 Fair	1.0 N/A
D0005.4	Stayton Scio Rd	Cole School Rd	Kingston Jordan Rd	7.41	8.72	1.31	65.0	65.0 Poor	1.0 Good	0.0 Poor	1.0 Good	0.0 Poor	1.0 N/A
D0035.2	North River Dr	Sunnyside Rd	Quartzville Rd	2.77	3.21	0.44	65.0	65.0 Poor	1.0 Good	0.0 Poor	1.0 Good	0.0 Poor	1.0 N/A
D0634.1	Montgomery Dr	Richardson Gap Rd	OR 226	0	2.1	2.1	65.0	65.0 Poor	1.0 Good	0.0 Poor	1.0 Good	0.0 Poor	1.0 N/A
D0001.2	Riverside Dr	Oakville Rd	OR 34	0.7	6.53	5.83	65.0	65.0 Poor	0.5 Fair	0.5 Fair	1.0 Good	0.5 Fair	1.0 N/A
D0005.3	Stayton Scio Rd	Shelburn Dr	Cole School Rd	6.14	7.41	1.27	62.0	60.0 Poor	0.5 Fair	0.4 Fair	1.0 Good	0.5 Fair	1.0 N/A
D0813.1	Kingwood Ave	Mill City UGB	Gates UGB	1.8	4.96	3.16	61.1	60.0 Poor	0.5 Fair	0.1 Poor	1.0 Good	1.0 Good	1.0 N/A
D0005-B.1	Kingston Jordan Rd	OR 226	Huntley Rd	0	2.85	2.85	60.0	60.0 Poor	0.5 Fair	0.5 Fair	1.0 Good	0.0 Poor	1.0 N/A
D0020-L.4	Lacomb Dr	Bellinger Scale Rd	Meridian Rd / Ford	4.41	6.57	2.16	60.0	60.0 Poor	0.5 Fair	0.5 Fair	1.0 Good	0.0 Poor	1.0 N/A
D0011.3	7 Mile Ln	OR 34	Tangent Dr	3.64	4.67	1.03	59.5	60.0 Poor	1.0 Good	0.3 Poor	0.0 Poor	0.7 Good	1.0 N/A
D0705.1	Denny School Rd	OR 34	Oak St	0	0.58	0.58	59.0	60.0 Poor	1.0 Good	0.6 Fair	0.0 Poor	0.0 Poor	1.0 N/A
D0018.1	Harrison Rd	7 Mile Ln	Sand Ridge Rd / Bro	0	3.11	3.11	57.5	60.0 Poor	0.5 Fair	0.0 Poor	1.0 Good	1.0 Good	1.0 N/A
D0032-A.1	Oakville Rd	OR 34	Tangent Dr	0	2.74	2.74	56.7	55.0 Poor	0.5 Fair	0.1 Poor	1.0 Good	0.6 Fair	1.0 N/A
D0035.1	North River Dr	Pleasant Valley Rd	Sunnyside Rd	0	2.77	2.77	56.4	55.0 Poor	0.5 Fair	0.2 Poor	1.0 Good	0.5 Fair	1.0 N/A
D0834.1	Lulay Rd	Camp Morrison Dr	Forest Roads	0	2.49	2.49	54.5	55.0 Poor	0.5 Fair	0.1 Poor	1.0 Good	0.6 Fair	1.0 N/A
D0337.1	Three Lakes Rd	Albany UGB	Midway Rd	1.55	2.2	0.65	52.6	55.0 Poor	0.5 Fair	0.0 Poor	1.0 Good	0.5 Fair	1.0 N/A
D0020-B.2	Berlin Rd	Waterloo Rd	Bellinger Scale Rd	5.35	5.62	0.27	52.5	55.0 Poor	0.0 Poor	0.5 Fair	1.0 Good	1.0 Good	1.0 N/A
D0335.1	Grand Prairie Dr	Albany UGB	Spicer Dr	1.13	2.93	1.8	52.5	55.0 Poor	0.0 Poor	0.5 Fair	1.0 Good	1.0 Good	1.0 N/A
D0719.2	River Dr, 1st St	River Dr	Waterloo UGB	1.73	5.04	3.31	52.5	55.0 Poor	0.0 Poor	0.5 Fair	1.0 Good	1.0 Good	1.0 N/A
D0801.1	Kingston Lyons Dr	Kingston Jordan Dr	OR 226	0	6.76	6.76	52.5	55.0 Poor	0.5 Fair	0.0 Poor	1.0 Good	0.5 Fair	1.0 N/A
D0011.2	7 Mile Ln	Three Lakes Rd	OR 34	1.49	3.64	2.15	52.1	50.0 Poor	1.0 Good	0.0 Poor	0.0 Poor	0.7 Good	1.0 N/A
D0009.1	Spicer Dr	Albany UGB	Grand Prairie Rd / S	0.68	3.18	2.5	49.9	50.0 Poor	0.0 Poor	0.5 Fair	1.0 Good	0.7 Good	1.0 N/A
D0001.1	Riverside Dr, Queen Av	Albany UGB	Riverside Dr	0.41	0.7	0.29	47.5	50.0 Poor	0.0 Poor	0.5 Fair	1.0 Good	0.5 Fair	1.0 N/A
D0007-A.1	Gilkey Rd, Crabtree Dr	Kelly Rd	Cold Springs Rd	0.01	3.76	3.75	47.5	50.0 Poor	0.0 Poor	0.5 Fair	1.0 Good	0.5 Fair	1.0 N/A
D0009.2	Spicer Dr	Grand Prairie Rd	Goltra Rd	3.18	3.57	0.39	47.5	50.0 Poor	0.0 Poor	0.5 Fair	1.0 Good	0.5 Fair	1.0 N/A
D0020-L.2	Lacomb Dr	Old Bellinger Scale R	Kowitz Rd	3.6	3.66	0.06	47.5	50.0 Poor	0.0 Poor	0.5 Fair	1.0 Good	0.5 Fair	1.0 N/A
D0318.2	Kamph Dr	Scravek Hill Rd	Murder Creek Dr / S	3.63	4.72	1.09	47.5	50.0 Poor	0.0 Poor	0.5 Fair	1.0 Good	0.5 Fair	1.0 N/A
D0715.1	Rock Hill Dr	Stoltz Hill Rd	South 5th St	0	0.49	0.49	47.5	50.0 Poor	0.0 Poor	0.5 Fair	1.0 Good	0.5 Fair	1.0 N/A
D0715.2	Rock Hill Dr	South 5th St	South Main St	0.49	0.98	0.49	47.5	50.0 Poor	0.0 Poor	0.5 Fair	1.0 Good	0.5 Fair	1.0 N/A
D0715.3	Rock Hill Dr	South Main St	Lebanon UGB	0.98	1.81	0.83	47.5	50.0 Poor	0.0 Poor	0.5 Fair	1.0 Good	0.5 Fair	1.0 N/A
D0716.2	Cascade Dr	Sodaville Rd	Lebanon UGB	1.18	1.4	0.22	47.5	50.0 Poor	0.0 Poor	0.5 Fair	1.0 Good	0.5 Fair	1.0 N/A
D0412.2	Sand Ridge Rd	Plainview Dr	Rock Hill Dr	1.53	1.66	0.13	46.7	45.0 Poor	0.0 Poor	0.5 Fair	1.0 Good	0.4 Fair	1.0 N/A
D0830.1	Camp Morrison Dr	OR 226	Lulay Rd	0	0.36	0.36	45.8	45.0 Poor	0.0 Poor	0.4 Fair	1.0 Good	0.5 Fair	1.0 N/A
D0759.1	Upper Calapooia Dr	OR 228	Forest Roads	0	8.65	8.65	42.4	40.0 Poor	0.0 Poor	0.4 Fair	1.0 Good	0.4 Fair	1.0 N/A
D0005-A.1	Shelburn Dr	Jefferson-Scio Dr	Shelburn Dr	0	0.3	0.3	40.0	40.0 Poor	0.0 Poor	0.0 Poor	1.0 Good	1.0 Good	1.0 N/A
D0006.1	Lyons Mill City Dr	Lyons UGB	Mill City UGB	1.81	5.66	3.85	40.0	40.0 Poor	0.0 Poor	0.0 Poor	1.0 Good	1.0 Good	1.0 N/A
D0730-A.1	Fairview Rd	US 20	Old Santiam Hwy	0	0.02	0.02	40.0	40.0 Poor	0.0 Poor	0.0 Poor	1.0 Good	1.0 Good	1.0 N/A
D0012.2	Church Rd	Oakville Rd	Peoria Rd	5.16	6.49	1.33	35.8	35.0 Poor	0.0 Poor	0.0 Poor	1.0 Good	0.5 Fair	1.0 N/A
D0009.5	Tennessee School Rd	US 20	Tennessee Rd	8.72	10.08	1.36	35.0	35.0 Poor	0.0 Poor	0.0 Poor	1.0 Good	0.5 Fair	1.0 N/A
D0637.1	Richardson Gap Rd	OR-226	Ridge Dr	0	1.71	1.71	30.6	30.0 Poor	0.0 Poor	0.0 Poor	1.0 Good	0.1 Poor	1.0 N/A
D0005.5	Kingston Jordan Rd	Stayton Scio Rd	Kingston Lyons Dr	8.72	9.8	1.08	30.0	30.0 Poor	0.0 Poor	0.0 Poor	1.0 Good	0.0 Poor	1.0 N/A
D0011.1	7 Mile Ln	Albany UGB	Three Lakes Rd	1.27	1.49	0.22	30.0	30.0 Poor	0.0 Poor	0.0 Poor	1.0 Good	0.0 Poor	1.0 N/A

Bridge Documentation

Bridge Inventory (Within Linn County and Outside Urban Growth Boundaries)

BRKEY	BRIDGE_ID	HWYNUMB	MP	BRIDGE_NAM	CARRIES	CROSSES	LENGTH_FT	WIDTH_FT	LANES	DESIGN	MATERIAL	OWNER	POSTING	SD_FO	SUF_RATING	INSP_DATE	CUSTODIAN	YEAR	DKRATING	SUPRATING	SUBRATING	RAILRATING	RAILCOND	RAILMAT	LAT	LONGTD	FHWA_FundingStatus
00361 164 00712	00361	164	7.12	Santiam River Oflow , Hwy 164 at MP 7.12	HWY 164	SANTIAM RIVER OFLOW #4	293.9	28.9	2	22 Channel Beam	1 Concrete	State Highway Agency	5 At/Above Legal Loads	Not Deficient	62.5	2013-07-01	State Highway Agency	1958	6 Satisfactory	6 Satisfactory	6 Satisfactory	0 Substandard	Good	Metal Rail Coated	44.710039	-123.030411	Rehabilitation
00564 058 01199	00564	058	11.99	Calapooia Bottoms, Hwy 58 at MP 11.99	OR 99E (HWY 58)	CALAPOOIA BOTTOMS 4	57	34.7	2	22 Channel Beam	1 Concrete	State Highway Agency	5 At/Above Legal Loads	Not Deficient	70.5	2014-02-24	State Highway Agency	1963	6 Satisfactory	6 Satisfactory	6 Satisfactory	0 Substandard	Fair	Conc Bridge Railing	44.495508	-123.108558	Rehabilitation
00565 058 01210	00565	058	12.1	Calapooia Bottoms, Hwy 58 at MP 12.10	OR 99E (HWY 58)	CALAPOOIA BOTTOMS 5	38	34.7	2	22 Channel Beam	1 Concrete	State Highway Agency	5 At/Above Legal Loads	Not Deficient	73.8	2014-02-24	State Highway Agency	1963	6 Satisfactory	6 Satisfactory	6 Satisfactory	0 Substandard	Fair	Conc Bridge Railing	44.493811	-123.108564	Rehabilitation
00738 058 00981	00738	058	9.81	Lake Creek, Hwy 58	OR 99E (HWY 58)	LAKE CREEK	70	33.6	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Functionally Obsolete	75.1	2014-02-05	State Highway Agency	1922	6 Satisfactory	6 Satisfactory	7 Good	1 Meets Standards	Fair	Conc Bridge Railing	44.526856	-123.110128	Rehabilitation
01512 016 04144	01512	016	41.44	Dobbin Creek, Hwy 16	US 20 (HWY 16)	DOBBIN CREEK	100.6	39.1	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	61.5	2014-02-13	State Highway Agency	1930	6 Satisfactory	6 Satisfactory	6 Satisfactory	1 Meets Standards	Fair	Metal Rail Coated	44.397314	-122.481547	Rehabilitation
01513 016 04229	01513	016	42.29	Wolf Creek, Hwy 16	US 20 (HWY 16)	WOLF CREEK	80	35.2	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	76.3	2014-02-13	State Highway Agency	1930	7 Good	6 Satisfactory	6 Satisfactory	1 Meets Standards	Fair	Metal Rail Coated	44.396022	-122.465047	Rehabilitation
01706 016 05244	01706	016	52.44	Soda Fork, Hwy 16	US 20 (HWY 16)	SODA FORK	154	35.3	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	79.2	2014-02-18	State Highway Agency	1936	6 Satisfactory	6 Satisfactory	6 Satisfactory	0 Substandard	Fair	Conc Bridge Railing	44.405986	-122.2815	Rehabilitation
01724 064700162	01724	C0000	1.62	Crabtree Creek, Hungry Hill Dr	HUNGRY HILL DR.	CRABTREE CREEK	148	18	1	10 Truss-Thru	7 Wood or Timber	County Hwy Agency	1 30.0-39.9%below	Structurally Deficient	25.1	2013-08-13	County Hwy Agency	1936	7 Good	3 Serious	6 Satisfactory		Poor	Timb Bridge Railing	44.65335	-122.890411	Replacement
02025 016 05660	02025	016	56.6	Sheep Creek, Hwy 16	US 20 (HWY 16)	SHEEP CREEK	276.3	35.2	2	02 Stringer/Girder	6 P/S Conc Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	71	2013-08-13	State Highway Agency	1963	5 Fair	5 Fair	5 Fair	1 Meets Standards	Fair	Conc Bridge Railing	44.409239	-122.215536	Rehabilitation
02321 211 01386	02321	211	13.86	Thomas Creek, Hwy 211 (Schindler)	OR 226 (HWY 211)	THOMAS CREEK	236	35.3	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	69.7	2012-08-02	State Highway Agency	1938	6 Satisfactory	6 Satisfactory	6 Satisfactory	1 Meets Standards	Fair	Conc Bridge Railing	44.711958	-122.770314	Rehabilitation
02322 058 01134	02322	058	11.34	Calapooia River, Hwy 58	OR 99E (HWY 58)	CALAPOOIA RIVER	291	35.2	2	02 Stringer/Girder	3 Steel	State Highway Agency	5 At/Above Legal Loads	Functionally Obsolete	76.5	2014-02-24	State Highway Agency	1937	6 Satisfactory	6 Satisfactory	6 Satisfactory	1 Meets Standards	Fair	Conc Bridge Railing	44.504383	-123.108608	Rehabilitation
04229 016 00469	04229	016	4.69	Truax Creek (Meinerts Creek), Hwy 16	US 20 (HWY 16)	TRUAX CREEK	18	58.8	2	22 Channel Beam	1 Concrete	State Highway Agency	5 At/Above Legal Loads	NA	95.9	2014-02-12	State Highway Agency	1956	7 Good	6 Satisfactory	7 Good		Good	Conc Bridge Railing	44.629606	-122.988667	Not Eligible
04272 211 00073	04272	211	0.73	Mill Creek, Hwy 211 at MP 0.73	OR 226 (HWY 211)	MILL CREEK	38	30.7	2	22 Channel Beam	1 Concrete	State Highway Agency	5 At/Above Legal Loads	Functionally Obsolete	61.6	2012-08-02	State Highway Agency	1961	6 Satisfactory	6 Satisfactory	5 Fair	0 Substandard	Fair	Conc Bridge Railing	44.63015	-122.936692	Rehabilitation
04283 211 01867	04283	211	18.67	Jordan Creek, Hwy 211	OR 226 (HWY 211)	JORDAN CREEK	22	30.6	2	22 Channel Beam	1 Concrete	State Highway Agency	5 At/Above Legal Loads	Not Deficient	72.2	2012-03-26	State Highway Agency	1959	6 Satisfactory	6 Satisfactory	5 Fair	1 Meets Standards	Good	Conc Bridge Railing	44.733875	-122.693542	Rehabilitation
04285 211 02045	04285	211	20.45	Jordan Creek, Hwy 211	OR 226 (HWY 211)	JORDAN CREEK	26	32	2	01 Slab	5 Prestressed Concrete	State Highway Agency	5 At/Above Legal Loads	Not Deficient	83.8	2012-03-26	State Highway Agency	1963	6 Satisfactory	6 Satisfactory	6 Satisfactory	1 Meets Standards	Fair	Conc Bridge Railing	44.750947	-122.66795	Not Eligible
04301 211 00493	04301	211	4.93	Beaver Creek, Hwy 211	OR 226 (HWY 211)	BEAVER CREEK	95	29.4	2	02 Stringer/Girder	7 Wood or Timber	State Highway Agency	5 At/Above Legal Loads	Functionally Obsolete	54	2012-08-02	State Highway Agency	1941	7 Good	6 Satisfactory	6 Satisfactory	1 Meets Standards	Good	Conc Bridge Railing	44.637006	-122.864169	Rehabilitation
04473 211 00543	04473	211	5.43	Beaver Creek Oflow , Hwy 211	OR 226 (HWY 211)	BEAVER CREEK OFLOW	20	29.3	2	01 Slab	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Functionally Obsolete	50.8	2012-08-02	State Highway Agency	1940	6 Satisfactory	6 Satisfactory	6 Satisfactory	1 Meets Standards	Good	Conc Bridge Railing	44.642797	-122.858856	Rehabilitation
04474 007A00142	04474	C0000	1.42	Tributary of Beaver Creek, Crabtree Dr	CRABTREE DR.	TRIB. OF BEAVER CREEK	53	29.3	2	02 Stringer/Girder	7 Wood or Timber	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	77.3	2013-08-16	County Hwy Agency	1941	6 Satisfactory	7 Good	7 Good		Poor	Conc Bridge Railing	44.633111	-122.889789	Rehabilitation
04668 000400668	04668	C0000	6.68	North Fork Santiam River, Jefferson Scio Dr	JEFFERSON-SCIO DR	N FORK SANTIAM RIVER	486	42.5	2	05 Multiple Box Beam	6 P/S Conc Continuous	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	80	2013-08-19	County Hwy Agency	1973	6 Satisfactory	5 Fair	6 Satisfactory		Good	Metal Rail Uncoated	44.707981	-122.972181	Rehabilitation
06806 162 06548	06806	162	65.48	Minto Creek, Hwy 162 at MP 65.48	OR 22 (HWY 162)	MINTO CREEK	62.3	43	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	57.5	2013-08-14	State Highway Agency	1934	6 Satisfactory	5 Fair	6 Satisfactory	1 Meets Standards	Good	Conc Bridge Railing	44.627181	-121.942181	Rehabilitation
08124 001 24042	08124	001	240.42	Santiam Oflow No 4, Hwy 1 SB at MP 240.42	I-5 (HWY 1) SB	SANTIAM OFLOW NO. 4	170	67.1	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	90.2	2013-02-06	State Highway Agency	1958	5 Fair	6 Satisfactory	6 Satisfactory	1 Meets Standards	Fair	Conc Bridge Railing	44.733431	-123.053303	Not Eligible
08130 001 23967	08130	C0000	239.67	Dever-Conner Road over Hwy 1	DEVER-CONNER ROAD	I-5 (HWY 1)	304	30.8	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	59.5	2012-10-29	State Highway Agency	1958	5 Fair	6 Satisfactory	6 Satisfactory	0 Substandard	Good	Conc Bridge Railing	44.722667	-123.05415	Rehabilitation
08132 001 23767	08132	C0000	237.67	Viewcrest Rd over Hwy 1	VIEWCREST ROAD	I-5 (HWY 1)	263	28.8	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Functionally Obsolete	64.3	2012-10-29	State Highway Agency	1958	5 Fair	6 Satisfactory	6 Satisfactory	0 Substandard	Good	Conc Bridge Railing	44.693811	-123.052322	Rehabilitation
08217 001 23571	08217	001	235.71	Murder Creek, Hwy 1 SB	I-5 (HWY 1) SB	MURDER CREEK	126	44.8	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	88.5	2013-02-04	State Highway Agency	1958	6 Satisfactory	6 Satisfactory	7 Good	1 Meets Standards	Good	Conc Bridge Railing	44.666072	-123.059044	Not Eligible
08219 001F23573	08219	001NA	235.73	Murder Creek, Hwy 1 Frtg Rd	I-5 (HWY 1) FRTG.	MURDER CREEK	72	30.8	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	82.8	2013-02-04	State Highway Agency	1958	6 Satisfactory	6 Satisfactory	7 Good	0 Substandard	Good	Conc Bridge Railing	44.665758	-123.057878	Not Eligible
08228 001 23012	08228	C0000	230.12	Seven Mile Lane over Hwy 1	SEVEN MILE LANE	I-5 (HWY 1)	308	30.8	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	70.1	2013-01-02	State Highway Agency	1958	5 Fair	6 Satisfactory	6 Satisfactory	0 Substandard	Good	Conc Bridge Railing	44.585139	-123.061956	Rehabilitation
08230 001 22709	08230	C0000	227.09	Tangent Rd over Hwy 1	TANGENT ROAD	I-5 (HWY 1)	239	28.8	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Functionally Obsolete	78.1	2013-01-02	State Highway Agency	1958	5 Fair	6 Satisfactory	6 Satisfactory	0 Substandard	Good	Conc Bridge Railing	44.541269	-123.061786	Rehabilitation
08231 001 22458	08231	C0000	224.58	Ridge Drive over Hwy 1	RIDGE DRIVE	I-5 (HWY 1)	239	28.8	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Functionally Obsolete	77.1	2013-01-02	State Highway Agency	1958	5 Fair	6 Satisfactory	6 Satisfactory	0 Substandard	Good	Conc Bridge Railing	44.504881	-123.061664	Rehabilitation
08237 001 21828	08237	C0000	218.28	Ogle Rd over Hwy 1	OGLE ROAD	I-5 (HWY 1)	239	28.8	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Functionally Obsolete	74.1	2012-12-05	State Highway Agency	1958	6 Satisfactory	6 Satisfactory	6 Satisfactory	0 Substandard	Fair	Conc Bridge Railing	44.413681	-123.061378	Rehabilitation
08242 001 21456	08242	C0000	214.56	Lake Creek Drive over Hwy 1	LAKE CREEK DRIVE	I-5 (HWY 1)	239	28.8	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Functionally Obsolete	77.2	2012-12-03	State Highway Agency	1958	6 Satisfactory	6 Satisfactory	6 Satisfactory	1 Meets Standards	Fair	Conc Bridge Railing	44.359722	-123.061197	Rehabilitation
08243 001 21205	08243	C0000	212.05	Bond Butte Rd over Hwy 1	BOND BUTTE ROAD	I-5 (HWY 1)	239	28.8	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	77.7	2012-12-03	State Highway Agency	1958	6 Satisfactory	6 Satisfactory	6 Satisfactory	1 Meets Standards	Fair	Conc Bridge Railing	44.323417	-123.061094	Rehabilitation
08248 001 20906	08248	C0000	209.06	Diamond Hill Drive over Hwy 1	DIAMOND HILL DRIVE	I-5 (HWY 1)	239	30.8	2	02 Stringer/Girder	5 Prestressed Concrete	State Highway Agency	5 At/Above Legal Loads	Not Deficient	92.1	2012-12-03	State Highway Agency	1959	6 Satisfactory	7 Good	6 Satisfactory	1 Meets Standards	Fair	Conc Bridge Railing	44.280142	-123.060892	Not Eligible
08249 001F20906	08249	001MG	209.06	Little Muddy Cr, Hwy 1 Frtg Rd (Diamond Hill Dr)	DIAMOND HILL DRIVE	LITTLE MUDDY CREEK	170	30.8	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Functionally Obsolete	80	2013-03-11	State Highway Agency	1959	6 Satisfactory	6 Satisfactory	7 Good	1 Meets Standards	Good	Conc Bridge Railing	44.28015	-123.059083	Rehabilitation
08250 001 20705	08250	C0000	207.05	Priceboro Road over Hwy 1	PRICEBORO ROAD	I-5 (HWY 001)	239	28.8	2	02 Stringer/Girder	5 Prestressed Concrete	State Highway Agency	5 At/Above Legal Loads	Functionally Obsolete	63.8	2013-03-11	State Highway Agency	1959	7 Good	6 Satisfactory	6 Satisfactory	1 Meets Standards	Good	Conc Bridge Railing	44.251003	-123.060825	Rehabilitation
08252 212 00241	08252	212	2.4	Hwy 212 over Hwy 1	OR 228 (HWY 212)	I-5 (HWY 1)	243	52.8	3	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	80.2	2014-02-11	State Highway Agency	1958	6 Satisfactory	6 Satisfactory	6 Satisfactory	1 Meets Standards	Good	Conc Bridge Railing	44.388867	-123.061308	Not Eligible
08253 001 21908	08253	C0000	219.08	Linn-West Rd over Hwy 1	LINN-WEST ROAD	I-5 (HWY 1)	239	28.8	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Functionally Obsolete	72.1	2012-12-10	State Highway Agency	1958	5 Fair	6 Satisfactory	6 Satisfactory	0 Substandard	Good	Conc Bridge Railing	44.425278	-123.061431	Rehabilitation
08254 001 22158	08254	C0000	221.58	Boston Mill Rd over Hwy 1	BOSTON MILL ROAD	I-5 (HWY 1)	239	28.8	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Functionally Obsolete	78	2013-01-02	State Highway Agency	1958	6 Satisfactory	6 Satisfactory	6 Satisfactory	0 Substandard	Good	Conc Bridge Railing	44.461519	-123.061575	Rehabilitation
08465 001F21021	08465	001	1.1	Creek, Hwy 1 Frontage Rd Rt at MP 210.21	BELTS RD	CREEK FRONTAGE RT	70	28.8	2	02 Stringer/Girder	2 Concrete Continuous	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	84	2013-05-22	County Hwy Agency	1959	7 Good	6 Satisfactory	6 Satisfactory		Good	Conc Bridge Railing	44.296281	-123.059919	Not Eligible
08466 001F20997	08466	001	0.9	Creek, Hwy 1 Frontage Rd Rt at MP 209.97	BELTS RD	CREEK FRONTAGE RT	70	28.8	2	02 Stringer/Girder	2 Concrete Continuous	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	75.7	2013-05-22	County Hwy Agency	1959	7 Good	6 Satisfactory	6 Satisfactory		Good	Conc Bridge Railing	44.29275	-123.059911	Rehabilitation
09413 210 00585	09413	210	5.85	Calapooia Oflow , Hwy 210 at MP 5.85	OR 34 (HWY 210)	CALAPOOIA OFLOW	170	88.3	4	01 Slab	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	90.7	2012-10-08	State Highway Agency	1971	6 Satisfactory	6 Satisfactory	6 Satisfactory	1 Meets Standards	Fair	Conc Bridge Railing	44.562497	-123.143392	Not Eligible
09414 210 00591	09414	210	5.91	Calapooia Oflow , Hwy 210 at MP 5.91	OR 34 (HWY 210)	CALAPOOIA OFLOW	128	88.3	4	01 Slab	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	90.7	2012-10-08	State Highway Agency	1971	6 Satisfactory	6 Satisfactory	6 Satisfactory	1 Meets Standards	Fair	Conc Bridge Railing	44.56205	-123.142689	Not Eligible
09473 215 00464	09473	215	4.64	McKenzie River, Hwy 215	OR 126 (HWY 215)	MCKENZIE RIVER	125	30	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	37.8	2012-05-21	State Highway Agency	1959	6 Satisfactory	6 Satisfactory	5 Fair	0 Substandard	Good	Conc Bridge Railing	44.3566	-121.994992	Replacement
09951 000900951	09951	C0000	9.51	Slough, Tennessee School Rd	TENNESSE SCH. ROAD	SLOUGH	45	30	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	96.9	2013-07-29	County Hwy Agency	1962	7 Good	7 Good	7 Good		Poor	Timb Bridge Railing	44.587731	-122.898431	Not Eligible
11906 092200167	11906		1.67	Ames Creek, County Rd 922	COUNTY RD 922	AMES CR	20	24	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	NA	85.8	##############	County Hwy Agency	1963	7 Good	8 Very Good	8 Very Good				44.378453	-122.6946	Not Eligible
11915 074900483	11915	C0000	4.83	McDowell Creek, Pleasant Valley Rd	PLEASANT VALLEY RD	MCDOWELL CREEK	110	24.7	2	02 Stringer/Girder	2 Concrete Continuous	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	72.4	2013-07-25	County Hwy Agency	1955	7 Good	7 Good	6 Satisfactory		Fair	Conc Bridge Railing	44.461031	-122.767989	Rehabilitation
11919 073000347	11919	C0000	3.47	Swale, Fairview Rd at MP 3.47	FAIRVIEW RD	SWALE	30	28	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	84	2013-07-26	County Hwy Agency	1967	7 Good	7 Good	6 Satisfactory		Good	Metal Rail Coated	44.465239	-122.802219	Not Eligible
11926 074300011	11926	C0000	0.11	Warren Creek, Kirk Dr	KIRK DR.	WARREN CR	27	24.7	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	79.6	2013-07-18	County Hwy Agency	1965	7 Good	7 Good	5 Fair		Fair	Timb Bridge Railing	44.400269	-122.92135	Rehabilitation
11930 074200702	11930		7.02	Warren Creek, County Rd 742	COUNTY RD 742	WARREN CR	20	24.5	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	NA	95.8	##############	County Hwy Agency	1965	7 Good	8 Very Good	8 Very Good				44.412169	-122.874458	Not Eligible
11931 074100130	11931	C0000	1.3	Oak Creek, Mountain Home Rd at MP 1.30	MOUNTAIN HOME RD.	OAK CREEK	24	28.5	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	94.3	2013-07-22	County Hwy Agency	1961	7 Good	7 Good	7 Good		Poor	Timb Bridge Railing	44.4629	-122.866169	Not Eligible
11932 074100070	11932	C0000	0.7	Oak Creek, Mountain Home Rd at MP 0.70	MOUNTAIN HOME RD.	OAK CREEK	60	36.4	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	85.9	2013-07-22	County Hwy Agency	1963	7 Good	7 Good	5 Fair		Poor	Timb Bridge Railing	44.470289	-122.870519	Not Eligible
11936 073000030	11936	C0000	0.3	Creek, Old Santiam Hwy	OLD SANTIAM HWY	CREEK	26	24.5	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Functionally Obsolete	66.9	2013-07-26	County Hwy Agency	1961	7 Good	7 Good	5 Fair		Poor	Timb Bridge Railing	44.498619	-122.845781	Rehabilitation
11939 073700045	11939	C0000	0.45	Oak Creek, Sodaville Cutoff Rd	SODAVILLE C'OFF RD	OAK CREEK	31	24.5	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	54.6	2013-07-23	County Hwy Agency	1961	7 Good	7 Good	5 Fair		Fair	Timb Bridge Railing	44.48615	-122.880281	Rehabilitation
11952 090400818	11952	C0000	8.18	McDowell Creek, McDowell Creek Dr at MP 8.18	MCDOWELL CR RD	MCDOWELL CR	48	24.7	2	02 Stringer/Girder	1 Concrete	County Hwy Agency	5 At/Above Legal Loads	Functionally Obsolete	70.7	2013-07-25	County Hwy Agency	1961	7 Good	7 Good	7 Good		Poor	Timb Bridge Railing	44.460969	-122.717311	Rehabilitation
11953 090400584	11953	C0000	5.84	McDowell Creek, McDowell Creek Dr at MP 5.84	MCDOWELL CR RD	MCDOWELL CR	116	20.5	2	02 Stringer/Girder	1 Concrete	County Hwy Agency	5 At/Above Legal Loads	Functionally Obsolete	70.5	2013-07-25	County Hwy Agency	1961	7 Good	7 Good	7 Good		Poor	Timb Bridge Railing	44.466011	-122.676969	Rehabilitation
11954 092700002	11954	C0000	0.02	McDowell Creek, Speasl Rd	SPEASL RD.	MCDOWELL CR	41	18.3	2	02 Stringer/Girder	3 Steel	County Hwy Agency	5 At/Above Legal Loads	Functionally Obsolete	52	2013-07-25	County Hwy Agency	1948	6 Satisfactory	5 Fair	6 Satisfactory		Poor	Timb Bridge Railing	44.458011	-122.70765	Rehabilitation
11956 020B00921	11956	C0000	9.21	Hamilton Creek, Berlin Rd at MP 9.21	BERLIN ROAD	HAMILTON CREEK	81	24.5	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	25.5	2013-07-26	County Hwy Agency	1962	7 Good	7 Good	3 Serious		Poor	Timb Bridge Railing	44.49735	-122.749569	Replacement
11958 090300060	11958	C0000	0.6	Hamilton Creek, Upper Berlin Rd at MP 0.60	UPPER BERLIN RD	HAMILTON CREEK	64	28.1	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	54.1	2013-07-26	County Hwy Agency	1971	7 Good	7 Good	4 Poor		Good	Metal Rail Coated	44.50105	-122.729039	Rehabilitation
11959 090300383	11959	C0000	3.83	Hamilton Creek, Upper Berlin Rd at MP 3.83	UPPER BERLIN RD	HAMILTON CREEK	49	20.7	2	02 Stringer/Girder	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	84.1	2013-07-26	County Hwy Agency	1961	7 Good	7 Good	6 Satisfactory		Poor	Timb Bridge Railing	44.535419	-122.704589	Not Eligible
11960 090300300	11960	C0000	3	Scott Creek, Upper Berlin Rd	UPPER BERLIN RD	SCOTT CREEK	45	24	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	79.1	2013-07-26	County Hwy Agency	1968	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.525931	-122.71105	Rehabilitation
11961 090300357	11961	C0000	3.57	Hamilton Creek, Upper Berlin Rd at MP 3.57	UPPER BERLIN RD	HAMILTON CREEK	48	20.3	2	02 Stringer/Girder	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	84.1	2013-07-26	County Hwy Agency	1962	7 Good	7 Good	6 Satisfactory		Good	Metal Rail Coated	44.532369	-122.706031	Not Eligible
11962 072700079	11962	C0000	0.79	Hamilton Creek, Bellinger Rd	BELLINGER RD.	HAMILTON CR	60	23.9	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	68.4	2013-07-26	County Hwy Agency	1967	7 Good	7 Good	5 Fair		Good	Metal Rail Coated	44.50355	-122.768069	Rehabilitation
11968 071900231	11968	C0000	2.31	Albany Santiam Canal, River Dr at MP 2.31	RIVER DR	ALBANY-SANTIAM CANAL	91	32.2	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	86.3	2013-07-23	County Hwy Agency	1966	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.515719	-122.86175	Not Eligible
11969 071900293	11969	C0000	2.93	Albany Santiam Canal. River Dr at MP 2.93	RIVER DR	CREEK	67	32	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	78.2	2013-07-23	County Hwy Agency	1961	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.511411	-122.853869	Rehabilitation
11974 072200027	11974	C0000	0.27	Hamilton Creek, Bellinger Scale Rd	BELLINGER SCALE RD	HAMILTON CR	82	40	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	57.4	2013-07-26	County Hwy Agency	1967	7 Good	7 Good	4 Poor		Good	Metal Rail Coated	44.513519	-122.798031	Rehabilitation
11983 067200103	11983	C0000	1.03	Onehorse Slough, TOtem Pole Rd	TOTEM POLE RD	ONEHORSE SLOUGH	35	28	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	95.9	2013-07-30	County Hwy Agency	1966	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.565519	-122.814631	Not Eligible
11987 020L00150	11987	C0000	1.5	One Horse Slough, Lacomb Rd	LACOMB ROAD	ONE HORSE SLOUGH	61	36	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	95	2013-07-30	County Hwy Agency	1969	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.577139	-122.842081	Not Eligible
11988 020L00374	11988	C0000	3.74	Beaver Creek, Lacomb Rd	LACOMB ROAD	BEAVER CREEK	61	35.9	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	95.4	2013-07-30	County Hwy Agency	1969	7 Good	7 Good	6 Satisfactory		Good	Metal Rail Coated	44.577161	-122.793119	Not Eligible
11992 066600378	11992	C0000	3.78	Onehourse Slough, Bond Rd	BOND ROAD	ONEHOURSE SLOUGH	45	28	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	47.3	2013-07-30	County Hwy Agency	1972	7 Good	7 Good	3 Serious		Fair	Metal Rail Coated	44.56915	-122.834569	Replacement
12237 012200081	12237	C0000	0.81	Lake Creek, North Lake Dr	N LAKE CREEK DR	LAKE CREEK	203	36.1	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	85.4	2013-05-26	County Hwy Agency	1960	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.543969	-123.125711	Not Eligible
12238 012200115	12238	C0000	1.15	Swale, North Lake Dr	N LAKE CREEK DR	SWALE	58	37.9	2	22 Channel Beam	1 Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	68.2	2013-07-16	County Hwy Agency	1960	7 Good	7 Good	4 Poor		Fair	Metal Rail Coated	44.542189	-123.131531	Rehabilitation
12248 001200109	12248		1.09	Irrigation Ditch, County Rd 12	COUNTY RD12	DITCH	16	24	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	NA	84.3	##############	County Hwy Agency	1963	7 Good	8 Very Good	8 Very Good				44.49505	-123.125611	Not Eligible
12251 001200532	12251	C0000	5.32	Muddy Creek, Church Dr	CHURCH DRIVE	MUDDY CREEK	177	28.8	2	02 Stringer/Girder	1 Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	75.4	2013-07-16	County Hwy Agency	1954	7 Good	7 Good	5 Fair		Good	Conc Bridge Railing	44.512919	-123.194061	Rehabilitation
12260 000200306	12260	C0000	3.06	Slough, Peoria Rd	PEORIA RD	SLOUGH	23	33.6	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	44.8	2013-07-16	County Hwy Agency	1961	7 Good	7 Good	4 Poor		Fair	Conc Bridge Railing	44.529331	-123.202781	Replacement
12261 000200323	12261	C0000	3.23	Muddy Creek, Peoria Rd	PEORIA RD	MUDDY CREEK	160	40.5	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	97.1	2013-05-29	County Hwy Agency	1969	7 Good	7 Good	7 Good				44.52695	-123.203631	Not Eligible
12265 000201247	12265	C0000	12.47	Lake Creek, Peoria Rd at MP 12.47	PEORIA RD	LAKE CREEK	46	36.1	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	91.8	2013-05-29	County Hwy Agency	1969	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.40055	-123.2044	Not Eligible
12266 000201286	12266	C0000	12.86	Lake Creek, Peoria Rd at MP 12.86	PEORIA RD	LAKE CREEK	128	35.8	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	66.3	2013-07-21	County Hwy Agency	1969	7 Good	7 Good	4 Poor		Poor	Metal Rail Coated	44.39495	-123.204389	Rehabilitation
12271 002A00394	12271	C0000	3.94	Curtis Slough, Coburg Rd	COBURG ROAD	CURTIS SLOUGH	38	33.7	2	22 Channel Beam	1 Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	85.3	2013-05-21	County Hwy Agency	1959	6 Satisfactory	6 Satisfactory	6 Satisfactory				44.212581	-123.1256	Not Eligible
12281 040200376	12281	C0000	3.76	Creek, Wirth Rd	WIRTH ROAD	CREEK	45	32	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	50	2013-07-17	County Hwy Agency	1969	7 Good	7 Good	3 Serious		Good	Metal Rail Coated	44.505911	-123.079639	Replacement
12282 013A00087	12282		0.87	Irrigation Ditch, County Rd 13A	COUNTY RD 13A	DITCH	12	24.2	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	NA	88.9	##############	County Hwy Agency	1963	7 Good	8 Very Good	8 Very Good				44.492531	-123.079589	Not Eligible
12286 001300746	12286	C0000	7.46	Sodom Ditch, Boston Mill Rd	BOSTON MILL RD	SODOM DITCH	118	22.5	2	02 Stringer/Girder	3 Steel	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	52.8	2013-07-17	County Hwy Agency	1961	7 Good	7 Good	5 Fair		Poor	Metal Rail Coated	44.461519	-123.066811	Rehabilitation
12299 021200097	12299	C0000	0.97	Creek, Oak Plain Dr	OAK PLAIN DR	CREEK	84	27.9	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	81	2013-05-29	County Hwy Agency	1973	7 Good	7 Good	5 Fair		Fair	Metal Rail Coated	44.418039	-123.129819	Not Eligible
12301 021200177	12301	C0000	1.77	Muddy Creek, Oak Plain Dr	OAK PLAIN DR	MUDDY CREEK	144	32	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	69.9	2013-07-21	County Hwy Agency	1975	7 Good	7 Good	4 Poor		Fair	Metal Rail Coated	44.420631	-123.143489	Rehabilitation
12310 000300171	12310	C0000	1.71	Slough, American Dr	AMERICAN DR	SLOUGH	120	36.7	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	87.3	2013-05-24	County Hwy Agency	1968	7 Good	7 Good	7 Good		Good	Conc Bridge Railing	44.392019	-123.142669	Not Eligible
12311 000300184	12311	C0000	1.84	Muddy Creek Oflow , American Dr	AMERICAN DR	MUDDY CREEK O'FLOW	101	36.2	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	88.3	2013-05-24	County Hwy Agency	1993	7 Good	7 Good	7 Good		Good	Conc Bridge Railing	44.392639	-123.145011	Not Eligible
12312 000300197	12312	C0000	1.97	Muddy Creek, American Dr	AMERICAN DR	MUDDY CREEK	101	36	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	76.9	2013-05-24	County Hwy Agency	1993	7 Good	7 Good	5 Fair		Good	Conc Bridge Railing	44.39305	-123.147439	Rehabilitation
12323 021900158	12323	C0000	1.58	Muddy Creek Overflow , Crook Rd	CROOK RD	MUDDY CREEK OVERFLOW	60	35.9	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	95.6	2013-05-29	County Hwy Agency	1968	7 Good	7 Good	6 Satisfactory		Fair	Metal Rail Coated	44.378019	-123.141161	Not Eligible
12326 022100050	12326	C0000	0.5	Camous Creek, Crook Rd	CROOK RD	CAMOUS CREEK	36	28	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	48.9	2013-05-29	County Hwy Agency	1971	7 Good	7 Good	3 Serious		Good	Metal Rail Coated	44.371731	-123.190289	Replacement
12327 022100002	12327	C0000	0.02	Lake Creek, Crook Dr	CROOK DRIVE	LAKE CREEK	27	28	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	97	2013-05-29	County Hwy Agency	1968	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.371019	-123.198881	Not Eligible
12328 000300438	12328	C0000	4.38	Overflow Canal, Nicewood Dr	NICEWOOD DRIVE	OVERFLOW CANAL	31	24	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	85.3	2013-05-29	County Hwy Agency	1964	7 Good	7 Good	7 Good				44.387661	-123.1889	Not Eligible
12329 000300460	12329	C0000	4.6	Lake Creek, Nicewood Dr	NICEWOOD DR.	LAKE CREEK	120	28	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	51.9	2013-05-29	County Hwy Agency	1971	7 Good	7 Good	3 Serious		Fair	Metal Rail Coated	44.387381	-123.1931	Rehabilitation
12335 022400445	12335	C0000	4.45	Camous Creek, Cartney Rd	CARTNEY ROAD	CAMOUS CREEK	35	25.3	2	22 Channel Beam	1 Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	58.9	2013-05-22	County Hwy Agency	1958	7 Good	6 Satisfactory	4 Poor		Fair	Metal Rail Coated	44.316469	-123.16535	Rehabilitation
12336 020600372	12336	C0000	3.72	Muddy Creek, Abraham Dr	ABRAHAM DR	MUDDY CREEK	131	24.3	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	68.8	2013-05-29	County Hwy Agency	1963	7 Good	7 Good	4 Poor		Poor	Metal Rail Coated	44.455361	-123.147511	Rehabilitation
12338 020600148	12338	C0000	1.48	Creek, Abraham Dr	ABRAHAM DR	CREEK	41	24.2	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	69	2013-05-29	County Hwy Agency	1964	7 Good	7 Good	4 Poor		Poor	Timb Bridge Railing	44.44515	-123.178031	Rehabilitation
12347 021800263	12347	C0000	2.63	Little Muddy Creek, Powerline Rd	POWERLINE RD	LITTLE MUDDY CREEK	97	28.3	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	89.8	2013-05-26	County Hwy Agency	1963	7 Good	7 Good	7 Good		Fair	Metal Rail Coated	44.347731	-123.12865	Not Eligible
12352 021800015	12352	C0000	0.15	Muddy Creek, Powerline Rd N	POWERLINE ROAD N.	MUDDY CREEK	90	24	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	36.1	2013-05-22	County Hwy Agency	1964	7 Good	7 Good	3 Serious		Fair	Metal Rail Coated	44.312239	-123.128561	Replacement
12357 022400287	12357	C0000	2.87	Muddy Creek, Cartney Rd	CARTNEY ROAD	MUDDY CREEK	129	31.8	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	96.9	2013-05-22	County Hwy Agency	1970	7 Good	7 Good	7 Good		Fair	Metal Rail Coated	44.316261	-123.134369	Not Eligible
12362 012700076	12362	C0000	0.76	Lake Creek, Glass Dr	GLASS DRIVE	LAKE CREEK	51	20	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	62.6	2013-07-16	County Hwy Agency	1969	7 Good	7 Good	4 Poor		Fair	Metal Rail Coated	44.5321	-123.119281	Rehabilitation
12365 012700104	12365	C0000	1.04	Lake Creek Tributary, Glass Dr	GLASS DRIVE	LAKE CREEK TRIBUTARY	50	20	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	62.5	2013-07-16	County Hwy Agency	1969	7 Good	7 Good	4 Poor		Fair	Metal Rail Coated	44.531811	-123.124769	Rehabilitation
12372 021700079	12372	C0000	0.79	Lake Creek, Pine Grove Dr	PINE GROVE DRIVE	LAKE CREEK	41	27.9	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	56.3	2013-05-29	County Hwy Agency	1974	7 Good	7 Good	4 Poor		Good	Metal Rail Coated	44.403389	-123.208331	Rehabilitation
12378 022300305	12378	C0000	3	Lake Creek, Nixon Dr	NIXON DRIVE	LAKE CREEK	30	25.3	2	22 Channel Beam	1 Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	96	2013-05-27	County Hwy Agency	1959	7 Good	7 Good	6 Satisfactory		Poor	Timb Bridge Railing	44.345539	-123.1808	Not Eligible
12381 022300270	12381	C0000	2.7	Camous Creek, Nixon Dr	NIXON DRIVE	CAMOUS CREEK	31	28	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	52.9	2013-05-27	County Hwy Agency	1967	7 Good	7 Good	3 Serious		Fair	Metal Rail Coated	44.345469	-123.17395	Rehabilitation
12383 022300064	12383	C0000	0.64	Little Muddy Creek, Nixon Dr	NIXON DRIVE	LITTLE MUDDY CREEK	73	28	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	95.9	2013-05-27	County Hwy Agency	1963	7 Good	7 Good	6 Satisfactory		Fair	Metal Rail Coated	44.352011	-123.141461	Not Eligible
12384 022300070	12384	C0000	0.7	Muddy Creek, Nixon Dr	NIXON DRIVE	MUDDY CREEK	78	24.2	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	85.9	2013-05-27	County Hwy Agency	1968	7 Good	7 Good	6 Satisfactory		Poor	Timb Bridge Railing	44.351811	-123.142489	Not Eligible
12385 022300037	12385	C0000	0.37	Little Muddy Creek Oflow , Nixon Dr at MP 0.37	NIXON DRIVE	LITTLE MUDDY CR. O'FLOW	53	24.2	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	58.9	2013-05-27	County Hwy Agency	1964	7 Good	7 Good	4 Poor		Poor	Timb Bridge Railing	44.352611	-123.13635	Rehabilitation
12386 022300021	12386	C0000	0.21	Little Muddy Creek Oflow , Nixon Dr at MP 0.21	NIXON DRIVE	LITTLE MUDDY CR O'FLOW	49	24	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	85.9	2013-05-26	County Hwy Agency	1964	7 Good	7 Good	6 Satisfactory		Good	Metal Rail Coated	44.352589	-123.132981	Not Eligible
12388 022700107	12388	C0000	1.07	Camous Creek, Substation Rd	SUBSTATION ROAD	CAMOUS CREEK	35	25.5	2	22 Channel Beam	1 Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	87.5	2013-05-22	County Hwy Agency	1959	7 Good	7 Good	7 Good		Poor	Metal Rail Coated	44.301831	-123.156581	Not Eligible
12389 023600016	12389	C0000	0.16	Curtis Slough, Wyatt Dr at MP 0.16	WYATT DRIVE	CURTIS SLOUGH	96	23.9	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	72.9	2013-05-21	County Hwy Agency	1968	7 Good	7 Good	7 Good		Fair	Metal Rail Coated	44.2181	-123.131719	Rehabilitation
12391 023600134	12391	C0000	1.34	Slough, Wyatt Dr	WYATT DRIVE	SLOUGH	74	24	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	90.4	2013-05-21	County Hwy Agency	1968	7 Good	7 Good	6 Satisfactory		Fair	Metal Rail Coated	44.218189	-123.147661	Not Eligible
12396 023400136	12396	C0000	1.36	Dry Muddy Creek, Bowers Ln	BOWERS DRIVE	DRY MUDDY CREEK	64	31.9	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	96.7	2013-05-21	County Hwy Agency	1972	7 Good	7 Good	6 Satisfactory		Good	Metal Rail Coated	44.228839	-123.10705	Not Eligible
12398 023400327	12398	C0000	3.27	Muddy Creek, Bowers Dr	BOWERS DRIVE	MUDDY CREEK	90	24	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	65.1	2013-05-21	County Hwy Agency	1966	7 Good	7 Good	5 Fair		Good	Metal Rail Coated	44.228331	-123.069781	Rehabilitation
12399 052000017	12399	C0000	0.17	Dry Muddy Creek, Dale Dr	DALE DRIVE	DRY MUDDY CREEK	51	24	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	96	2013-05-21	County Hwy Agency	1968	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.237861	-123.111	Not Eligible
12417 033000135	12417	C0000	1.35	Tributary of Cox Creek, Kennel Rd	KENNEL ROAD	TRIBUTARY OF COX CREEK	23	27.9	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	91.4	2013-05-28	County Hwy Agency	1968	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.612161	-123.035761	Not Eligible
12436 052100557	12436	C0000	5.57	Little Muddy Creek, Priceboro Dr	PRICEBORO DRIVE	LITTLE MUDDY CR.	46	28	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	95.9	2013-05-21	County Hwy Agency	1971	7 Good	7 Good	6 Satisfactory		Good	Metal Rail Coated	44.243469	-123.035881	Not Eligible
12444 023200276	12444	C0000	2.76	Muddy Creek, Priceboro Dr	PRICEBORO DRIVE	MUDDY CREEK	77	31.9	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	96.9	2013-05-22	County Hwy Agency	1975	7 Good	7 Good	7 Good		Fair	Metal Rail Coated	44.261531	-123.108931	Not Eligible
12447 052000108	12447	C0000	1.08	Muddy Creek, Dale Dr	DALE DRIVE	MUDDY CREEK	60	24	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	84.8	2013-05-21	County Hwy Agency	1968	7 Good	7 Good	5 Fair		Poor	Metal Rail Coated	44.24155	-123.097919	Not Eligible
12457 023100081	12457		0.81	Creek, County Rd 231	COUNTY RD 231	CREEK	18	36	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	NA	99.9	##############	County Hwy Agency	1967	8 Very Good	8 Very Good	7 Good				44.273942	-123.146731	Not Eligible
12458 023100044	12458	C0000	0.44	Camous Creek, Old Territorial Dr	OLD TERRITORIAL DR	CAMOUS CREEK	31	24.2	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Functionally Obsolete	77.5	2013-05-22	County Hwy Agency	1963	7 Good	7 Good	7 Good		Fair	Timb Bridge Railing	44.273911	-123.1467	Rehabilitation
12463 051500262	12463	C0000	2.62	Little Muddy Creek, Rowland Rd	ROWLAND ROAD	LITTLE MUDDY CREEK	284	29	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	84.1	2013-05-22	County Hwy Agency	1964	7 Good	7 Good	7 Good		Good	Conc Bridge Railing	44.3173	-123.077419	Not Eligible
12470 001500450	12470	C0000	4.5	Pierce Creek, Gap Rd	GAP ROAD	PIERCE CREEK	37	27.9	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	90.4	2013-05-23	County Hwy Agency	1967	7 Good	7 Good	6 Satisfactory		Good	Metal Rail Coated	44.282989	-122.994589	Not Eligible
12473 051600298	12473	C0000	2.98	Irrigation Ditch, Bond Butte Rd at MP 2.98	BOND BUTTE RD	DITCH	49	27.9	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	86	2013-05-23	County Hwy Agency	1973	7 Good	7 Good	5 Fair		Fair	Metal Rail Coated	44.309669	-123.037019	Not Eligible
12474 051600148	12474	C0000	1.48	Irrigation Ditch, Bond Butte Rd at MP 1.48	BOND BUTTE RD	DITCH	31	32	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	97	2013-05-23	County Hwy Agency	1965	7 Good	7 Good	6 Satisfactory		Good	Metal Rail Coated	44.32345	-123.047981	Not Eligible
12476 051300186	12476		1.86	Irrigation Ditch, County Rd 513	COUNTY RD 513	DITCH	20	24	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	NA	96	##############	County Hwy Agency	1963	7 Good	8 Very Good	8 Very Good				44.345222	-123.047392	Not Eligible
12478 051300092	12478	C0000	0.92	Spoon Creek, Twin Butte Dr West	TWIN BUTTE DR WEST	SPOON CREEK	44	24.1	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	90.8	2013-05-24	County Hwy Agency	1971	7 Good	7 Good	6 Satisfactory		Fair	Metal Rail Coated	44.345189	-123.069269	Not Eligible
12491 052500080	12491	C0000	0.8	Spoon Creek, Waggoner Rd	WAGGENER ROAD	SPOON CREEK	25	24.2	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	85	2013-05-23	County Hwy Agency	1962	7 Good	7 Good	5 Fair		Poor	Timb Bridge Railing	44.333831	-123.052619	Not Eligible
12492 052600044	12492	C0000	0.44	Muddy Creek, Bush Garden Dr	BUSH GARDEN DR.	MUDDY CREEK	36	28	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	54.7	2013-05-21	County Hwy Agency	1971	7 Good	7 Good	4 Poor		Fair	Metal Rail Coated	44.212761	-123.075869	Rehabilitation
12493 002300163	12493	C0000	1.63	Spoon Creek, Lake Creek Rd East	LAKE CREEK RD EAST	SPOON CREEK	31	27.6	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	83.2	2013-05-24	County Hwy Agency	1962	7 Good	7 Good	7 Good		Fair	Metal Rail Coated	44.3597	-123.0759	Not Eligible
12497 022200146	12497	C0000	1.46	Muddy Creek, Lake Creek Rd West	LAKE CR RD-WEST	MUDDY CREEK	145	32	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	85.7	2013-05-27	County Hwy Agency	1975	7 Good	7 Good	5 Fair		Good	Metal Rail Coated	44.359861	-123.137781	Not Eligible
12500 022200334	12500	C0000	3.34	Camous Creek, Lake Creek Rd West	LAKE CR RD-WEST	CAMOUS CREEK	46	32	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	96.9	2013-05-27	County Hwy Agency	1970	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.359989	-123.174869	Not Eligible
12502 022200403	12502	C0000	4.03	Swale, Lake Creek Rd West	LAKE CR RD-WEST	SWALE	23	31.8	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	96.9	2013-05-27	County Hwy Agency	1973	7 Good	7 Good	7 Good		Fair	Metal Rail Coated	44.36005	-123.188461	Not Eligible
12503 022200412	12503	C0000	4.12	Lake Creek, Lake Creek Rd West	LAKE CR RD-WEST	LAKE CREEK	46	32	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	85.9	2013-05-27	County Hwy Agency	1969	7 Good	7 Good	5 Fair		Fair	Metal Rail Coated	44.360089	-123.190269	Not Eligible
12504 050400117	12504	C0000	1.17	Spoon Creek, Seefeld Dr	SEEFELD DR.	SPOON CREEK	52	28	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	98	2013-05-24	County Hwy Agency	1960	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.374261	-123.08495	Not Eligible
12505 050400210	12505	C0000	2.1	Creek, Seefeld Dr	SEEFELD DR.	CREEK	45	24.5	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	90.7	2013-05-24	County Hwy Agency	1964	7 Good	7 Good	7 Good		Fair	Metal Rail Coated	44.374211	-123.06635	Not Eligible
12506 050400223	12506		2.23	Irrigation Ditch, County Rd 504	COUNTY RD 504	DITCH	21	29.5	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	NA	89.1	##############	County Hwy Agency	1959	7 Good	8 Very Good	8 Very Good				44.374247	-123.066383	Not Eligible
12513 050200127	12513	C0000	1.27	Spoon Creek, Falk Rd	FALK RD	SPOON CREEK	45	24.6	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	57.4	2013-05-24	County Hwy Agency	1960	7 Good	7 Good	4 Poor		Fair	Timb Bridge Railing	44.370761	-123.077519	Rehabilitation
12514 050200056	12514	C0000	0.56	Spoon Creek, Falk Rd	FALK RD	SPOON CREEK	51	24.5	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	55.8	2013-05-24	County Hwy Agency	1961	7 Good	7 Good	4 Poor		Poor	Timb Bridge Railing	44.38085	-123.077711	Rehabilitation
12517 050300012	12517	C0000	0.12	Irrigation Ditch, Kirk Rd	KIRK RD.	DITCH	22	23.8	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	69	2013-05-24	County Hwy Agency	1964	7 Good	6 Satisfactory	4 Poor		Good	Metal Rail Coated	44.361531	-123.057339	Rehabilitation
12521 050800033	12521	C0000	0.33	Courtney Creek, Lake Creek Dr East	LAKE CR.DR.EAST	COURTNEY CREEK	59	32	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	96.8	2013-07-18	County Hwy Agency	1974	7 Good	7 Good	6 Satisfactory		Fair	Metal Rail Coated	44.3724	-123.01355	Not Eligible
12529 051000245	12529	C0000	2.45	Tributary of Courtney Creek, Ranch Dr	RANCH DR.	TRIBUTARY OF COURTNEY CR	24	28	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	95.9	2013-05-23	County Hwy Agency	1965	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.348239	-122.984769	Not Eligible
12531 077000105	12531	C0000	1.05	Courtney Creek, Gap Rd	GAP ROAD	COURTNEY CREEK	69	31.8	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	92.9	2013-05-23	County Hwy Agency	1972	7 Good	7 Good	6 Satisfactory		Good	Metal Rail Coated	44.366969	-122.985011	Not Eligible
12540 043000023	12540	C0000	0.23	Courtney Creek, Ogle Rd	OGLE RD	COURTNEY CREEK	91	32	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	77.5	2013-05-25	County Hwy Agency	1964	7 Good	7 Good	5 Fair		Good	Metal Rail Coated	44.391989	-123.05945	Rehabilitation
12542 043000066	12542	C0000	0.66	Slough, Ogle Rd at MP 0.66	OGLE RD	SLOUGH	51	32	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	96.8	2013-05-25	County Hwy Agency	1964	7 Good	7 Good	6 Satisfactory		Fair	Metal Rail Coated	44.397989	-123.060061	Not Eligible
12543 043000080	12543	C0000	0.8	Creek, Ogle Rd at MP 0.80	OGLE RD	CREEK	40	32.5	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	69.7	2013-05-25	County Hwy Agency	1961	7 Good	7 Good	4 Poor		Poor	Metal Rail Coated	44.400019	-123.060069	Rehabilitation
12545 043000134	12545	C0000	1.34	Irrigation Ditch, Ogle Rd at MP 1.34	OGLE RD	DITCH	30	32.1	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	69.7	2013-05-25	County Hwy Agency	1964	7 Good	7 Good	4 Poor		Fair	Metal Rail Coated	44.40765	-123.0601	Rehabilitation
12546 043000229	12546	C0000	2.29	Creek, Ogle Rd at MP 2.29	OGLE RD	CREEK	58	24.2	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	70.1	2013-05-25	County Hwy Agency	1964	7 Good	7 Good	5 Fair		Fair	Metal Rail Coated	44.419361	-123.065081	Rehabilitation
12548 002600113	12548	C0000	1.13	Walton Slough, Linn West Dr	LINN WEST DR	WALTON SLOUGH	150	29	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	78.5	2013-05-25	County Hwy Agency	1966	7 Good	7 Good	7 Good		Fair	Conc Bridge Railing	44.425181	-123.08775	Rehabilitation
12551 002600231	12551	C0000	2.31	Calapooia River, Linn West Dr	LINN WEST DR	CALAPOOIA RIVER	135	28.8	2	02 Stringer/Girder	1 Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	36	2013-05-25	County Hwy Agency	1953	7 Good	6 Satisfactory	3 Serious		Good	Conc Bridge Railing	44.42525	-123.06435	Replacement

Bridge Inventory (Within Linn County and Outside Urban Growth Boundaries)

BRKEY	BRIDGE_ID	HWYNUMB	MP	BRIDGE_NAM	CARRIES	CROSSES	LENGTH_FT	WIDTH_FT	LANES	DESIGN	MATERIAL	OWNER	POSTING	SD_FO	SUF_RATING	INSP_DATE	CUSTODIAN	YEAR	DKRATING	SUPRATING	SUBRATING	RAILRATING	RAILCOND	RAILMAT	LAT	LONGTD	FHWA_FundingStatus
12557 042000071	12557	C0000	0.71	Waldron Slough, Roberts Rd at MP 0.71	ROBERTS ROAD	WALDRON SLOUGH	82	32.2	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	78.7	2013-05-25	County Hwy Agency	1966	7 Good	7 Good	5 Fair		Good	Metal Rail Coated	44.451231	-123.081331	Rehabilitation
12558 041800155	12558		1.55	Irrigation Ditch, County Rd 418	COUNTY RD 418	DITCH	16	24	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	NA	85.9	##############	County Hwy Agency	1963	7 Good	8 Very Good	8 Very Good				44.502211	-123.093239	Not Eligible
12573 040200250	12573	C0000	2.5	Lake Creek, Tangent Loop Rd at MP 2.50	TANGENT LOOP RD	LAKE CREEK	30	24.5	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	75.9	2013-07-17	County Hwy Agency	1961	7 Good	7 Good	7 Good		Poor	Metal Rail Coated	44.520169	-123.073931	Rehabilitation
12582 403 00017	12582	C0000	0.17	Oak Creek, Tangent Dr	TANGENT DR	OAK CREEK	57	29.7	2	02 Stringer/Girder	1 Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	84.9	2013-07-21	County Hwy Agency	1958	7 Good	7 Good	5 Fair		Poor	Timb Bridge Railing	44.54785	-123.004431	Not Eligible
12589 033700259	12589	C0000	2.59	Oak Creek, Three Lakes Rd	THREE LAKES RD	THREE LAKES / OAK CREEK	96	29.6	2	22 Channel Beam	1 Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	73.4	2013-07-28	County Hwy Agency	1960	6 Satisfactory	5 Fair	6 Satisfactory		Fair	Metal Rail Coated	44.590019	-123.05915	Rehabilitation
12616 033600065	12616	C0000	0.65	Oak Creek, Fry Rd at MP 0.65	FRY RD	OAK CREEK	77	25	2	22 Channel Beam	1 Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	51.4	2013-07-31	County Hwy Agency	1960	6 Satisfactory	4 Poor	4 Poor		Poor	Timb Bridge Railing	44.578219	-123.043061	Rehabilitation
12617 033600054	12617	C0000	0.54	Oak Creek, Fry Rd at MP 0.54	FRY ROAD	OAK CREEK	61	24	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	70.1	2013-07-31	County Hwy Agency	1965	7 Good	7 Good	5 Fair		Fair	Timb Bridge Railing	44.576539	-123.043439	Rehabilitation
12619 074000008	12619	C0000	0.08	Cochran Creek, Cochran Creek Dr at MP 0.08	COCHRAN CR DR	COCHRAN CREEK	60	23.9	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	51.6	2013-07-19	County Hwy Agency	1969	7 Good	7 Good	4 Poor		Good	Metal Rail Coated	44.423669	-122.986869	Rehabilitation
12620 074000048	12620	C0000	0.48	Cochran Creek, Cochran Creek Dr at MP 0.48	COCHRAN CR DR	COCHRAN CREEK	23	32.9	2	22 Channel Beam	1 Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	91	2013-07-19	County Hwy Agency	1963	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.426281	-122.980019	Not Eligible
12621 074000094	12621	C0000	0.94	Cochran Creek, Cochran Creek Dr at MP 0.94	COCHRAN CR DR	COCHRAN CR	30	24.1	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	90.2	2013-07-19	County Hwy Agency	1963	7 Good	7 Good	7 Good		Fair	Timb Bridge Railing	44.428281	-122.971581	Not Eligible
12622 042500207	12622	C0000	2.07	Cochran Creek, Brownsville Rd	BROWNSVILLE ROAD	COCHRAN CREEK	41	36.1	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	95.6	2013-07-19	County Hwy Agency	1999	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.4269	-122.990331	Not Eligible
12626 041300178	12626	C0000	1.78	Cochran Creek, Manning Rd	MANNING ROAD	COCHRAN CREEK	57	24.5	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	96	2013-07-19	County Hwy Agency	1961	7 Good	7 Good	6 Satisfactory		Poor	Timb Bridge Railing	44.461211	-123.023039	Not Eligible
12632 001800171	12632	C0000	1.71	Cochran Creek, Harrison Rd	HARRISON ROAD	COCHRAN CREEK	32	35.9	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Functionally Obsolete	81.6	2013-07-19	County Hwy Agency	1972	7 Good	7 Good	5 Fair		Poor	Metal Rail Coated	44.456569	-123.018611	Not Eligible
12644 041000053	12644		0.53	Irrigation Ditch, County Rd 410	COUNTY RD 410	DITCH	16	24.2	2	01 Slab	1 Concrete	County Hwy Agency	5 At/Above Legal Loads	NA	96	##############	County Hwy Agency	1963	8 Very Good	8 Very Good	8 Very Good				44.497586	-123.008025	Not Eligible
12646 040800011	12646	C0000	0.11	Oak Creek, Steckley Rd	STECKLEY RD	OAK CREEK	50	32	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	85.8	2013-07-19	County Hwy Agency	1969	7 Good	7 Good	5 Fair		Good	Metal Rail Coated	44.544561	-122.994389	Not Eligible
12647 040800005	12647	C0000	0.05	Oak Creek Overflow , Steckley Rd	STECKLEY RD	OAK CREEK OVERFLOW	30	30.7	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	79.1	2013-07-19	County Hwy Agency	1961	7 Good	7 Good	7 Good		Poor	Metal Rail Coated	44.545389	-122.994369	Rehabilitation
12652 070700131	12652	C0000	1.31	Oak Creek, Airport Dr at MP 1.31	AIRPORT DR	OAK CREEK	65	36	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	94.4	2013-07-23	County Hwy Agency	1970	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.526631	-122.94775	Not Eligible
12668 066200062	12668	C0000	0.62	Albany-Santiam Canal, Langmack Rd	LANGMACK RD	ALBANY-SANTIAM CANAL	47	24.6	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	77	2013-07-31	County Hwy Agency	1962	7 Good	7 Good	7 Good		Poor	Timb Bridge Railing	44.569992	-122.955456	Rehabilitation
12672 040700056	12672		0.56	Irrigation Ditch, County Rd 407	COUNTY RD 407	DITCH	12	24	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	NA	96	##############	County Hwy Agency	1970	7 Good	8 Very Good	8 Very Good				44.534231	-123.005531	Not Eligible
12676 070200105	12676	C0000	1.05	Small Creek. Tennessee Rd at MP 1.05	TENNESSEE RD	SMALL CREEK	51	24.1	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	77.5	2013-07-25	County Hwy Agency	1966	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.558569	-122.894781	Rehabilitation
12682 066000089	12682	C0000	0.89	Albany-Santiam Canal, tallman Rd	TALLMAN ROAD	ALBANY-SANTIAM CANAL	30	24.5	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	87.8	2013-07-31	County Hwy Agency	1962	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.576061	-122.967239	Not Eligible
12685 070100316	12685		3.16	Irrigation Ditch, County Rd 701	COUNTY RD 701	DITCH	16	24	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	NA	85.9	##############	County Hwy Agency	1965	7 Good	8 Very Good	8 Very Good				44.561181	-122.939839	Not Eligible
12688 070100462	12688	C0000	4.62	Little Oak Creek, Gore Rd	GORE ROAD	LITTLE OAK CREEK	31	30	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	69.9	2013-07-31	County Hwy Agency	1968	7 Good	7 Good	4 Poor		Fair	Metal Rail Coated	44.560911	-122.968861	Rehabilitation
12693 034200297	12693	C0000	2.97	Albany-Santiam Canal, Red Bridge Rd	RED BRIDGE RD	ALBANY-SANTIAM CANAL	25	22.5	2	02 Stringer/Girder	7 Wood or Timber	County Hwy Agency	4 0.1-9.9%below	Not Deficient	62.8	2013-07-31	County Hwy Agency	1950	6 Satisfactory	6 Satisfactory	6 Satisfactory		Poor	Metal Rail Coated	44.587181	-122.988889	Rehabilitation
12696 000900135	12696	C0000	1.35	South Fork Cox Creek, Spicer Dr	SPICER DRIVE	SO. FORK COX CREEK	31	31.9	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	91.5	2013-07-29	County Hwy Agency	1968	7 Good	7 Good	7 Good		Fair	Metal Rail Coated	44.618019	-123.039169	Not Eligible
12702 065800289	12702		2.89	Irrigation Ditch, County Rd 658	COUNTY RD 658	DITCH	20	24	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	NA	96	##############	County Hwy Agency	1964	7 Good	8 Very Good	8 Very Good				44.59685	-122.982367	Not Eligible
12704 066100188	12704	C0000	1.88	Irrigation Ditch, KGAL Dr	KGAL DR	DITCH	24	28	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	91.3	2013-07-31	County Hwy Agency	1970	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.572269	-122.952789	Not Eligible
12713 033400004	12713	C0000	0.04	Truax Creek, Engle Rd	ENGLE ROAD	TRUAX CREEK	26	32.5	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	95.9	2013-07-29	County Hwy Agency	1958	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.628919	-122.987881	Not Eligible
12717 033300070	12717	C0000	0.7	Cox Creek, Muller Dr	MULLER DRIVE	COX CREEK	31	24	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	86.1	2013-07-29	County Hwy Agency	1961	7 Good	7 Good	6 Satisfactory		Poor	Metal Rail Coated	44.613719	-123.002761	Not Eligible
12718 033300137	12718	C0000	1.37	Burkhart Creek, Muller Dr	MULLER DRIVE	BURKHART CREEK	31	24	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	37.7	2013-07-29	County Hwy Agency	1963	7 Good	7 Good	3 Serious		Poor	Timb Bridge Railing	44.614619	-122.989361	Replacement
12721 065700223	12721		2.23	Burkhart Creek, County Rd 657	COUNTY RD 657	BURKHART CREEK	19	33.3	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	NA	96.9	##############	County Hwy Agency	1960	7 Good	8 Very Good	6 Satisfactory				44.61135	-122.982067	Not Eligible
12734 031700245	12734	C0000	2.45	Murder Creek, Kenworthy Rd	KENWORTHY RD	MURDER CREEK	40	27.9	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	91.4	2013-08-15	County Hwy Agency	1975	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.665161	-123.056969	Not Eligible
12736 002400274	12736		2.74	Irrigation Ditch, County Rd 24 at MP 2.74	COUNTY RD 24	DITCH	15	26	2	01 Slab	1 Concrete	County Hwy Agency	5 At/Above Legal Loads	NA	82.2	##############	County Hwy Agency	1958	8 Very Good	8 Very Good	8 Very Good				44.561336	-122.876269	Not Eligible
12737 002400317	12737		3.17	Irrigation Ditch, County Rd 24 at MP 3.17	COUNTY RD 24	DITCH	16	27.5	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	NA	78	##############	County Hwy Agency	1965	7 Good	8 Very Good	8 Very Good				44.566467	-122.875453	Rehabilitation
12738 002400462	12738	C0000	4.62	Onehorse Slough, Brewster Rd	BREWSTER ROAD	ONEHORSE SLOUGH	85	30.9	2	02 Stringer/Girder	2 Concrete Continuous	County Hwy Agency	5 At/Above Legal Loads	Functionally Obsolete	75.9	2013-07-30	County Hwy Agency	1954	7 Good	6 Satisfactory	6 Satisfactory		Fair	Conc Bridge Railing	44.591719	-122.86975	Rehabilitation
12742 066800172	12742	C0000	1.72	Beaver Creek, Griggs Dr	GRIGGS DR.	BEAVER CREEK	120	28	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	84.9	2012-08-21	County Hwy Agency	1973	7 Good	7 Good	5 Fair		Good	Metal Rail Coated	44.60885	-122.840989	Not Eligible
12744 066700017	12744		0.17	Creek, County Rd 667	COUNTY RD 667	CREEK	19	25	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	NA	96	##############	County Hwy Agency	1958	8 Very Good	8 Very Good	8 Very Good				44.631267	-122.814347	Not Eligible
12755 031700065	12755		0.65	Irrigation Ditch, County Rd 317	COUNTY RD 317	DITCH	19	25.5	2	01 Slab	1 Concrete	County Hwy Agency	5 At/Above Legal Loads	NA	90.4	##############	County Hwy Agency	1958	6 Satisfactory	8 Very Good	8 Very Good				44.680475	-123.041972	Not Eligible
12763 041600038	12763	C0000	0.38	Calapooia River Overflow , Wirth Rd	WIRTH RD.	CALAPOOIA R OVER FLOW	77	25.4	2	22 Channel Beam	1 Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	67.8	2013-07-17	County Hwy Agency	1961	7 Good	7 Good	5 Fair		Fair	Timb Bridge Railing	44.486561	-123.079881	Rehabilitation
12768 076900055	12768	C0000	0.55	Tributary of Courtney Creek, Holmes Dr	HOLMES DR.	TRIBUTARY OF COURTNEY CR	38	24	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	90.8	2013-05-23	County Hwy Agency	1965	7 Good	7 Good	7 Good		Fair	Metal Rail Coated	44.363361	-122.973831	Not Eligible
12771 034200190	12771	C0000	1.9	Little Oak Creek, Red Bridge Rd	RED BRIDGE RD	LITTLE OAK CREEK	30	25.5	2	22 Channel Beam	1 Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	76.4	2013-07-31	County Hwy Agency	1959	7 Good	7 Good	5 Fair		Poor	Timb Bridge Railing	44.572531	-122.987889	Rehabilitation
12772 031100148	12772	C0000	1.48	Irrigation Ditch, Groshong Rd	GROSHONG ROAD	DITCH	49	25.4	2	02 Stringer/Girder	1 Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	76.4	2013-08-19	County Hwy Agency	1959	6 Satisfactory	5 Fair	5 Fair		Fair	Timb Bridge Railing	44.706389	-123.101731	Rehabilitation
12774 0302 239	12774	C0000	2.39	Crooks Creek, Cooper Rd	COOPER ROAD	CROOKS CREEK	61	24.2	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	96	2013-08-19	County Hwy Agency	1967	7 Good	7 Good	6 Satisfactory		Good	Metal Rail Coated	44.730161	-123.119339	Not Eligible
12780 003400172	12780	C0000	1.72	Crooks Creek, Dever Conner Rd	DEVER-CONNER ROAD	CROOKS CREEK	76	36	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	69.8	2013-08-19	County Hwy Agency	1968	7 Good	7 Good	4 Poor		Fair	Metal Rail Coated	44.719231	-123.0868	Rehabilitation
12781 003400447	12781	C0000	4.47	Irrigation Ditch, Conser Rd	CONSER ROAD	DITCH	30	24.2	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	70	2013-08-19	County Hwy Agency	1962	7 Good	7 Good	7 Good		Poor	Timb Bridge Railing	44.705781	-123.123619	Rehabilitation
12782 031200028	12782	C0000	0.28	McCarthy Slough, Balck Dog Rd	BLACK DOG ROAD	MCCARTHY SLOUGH	29	24	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	69.9	2013-08-19	County Hwy Agency	1960	7 Good	7 Good	6 Satisfactory		Fair	Timb Bridge Railing	44.7096	-123.129569	Rehabilitation
12792 065100065	12792	C0000	0.65	Mill Creek, N Folsom Rd at MP 0.65	FOLSOM RD	MILL CREEK	58	25.5	2	22 Channel Beam	1 Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	43.8	2013-08-22	County Hwy Agency	1959	7 Good	6 Satisfactory	4 Poor		Poor	Timb Bridge Railing	44.644919	-122.954761	Replacement
12794 065200054	12794	C0000	0.54	Mill Creek, Plagmann Dr	OR 78 (HWY 442)RW	MILL CREEK	75	24.6	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	90.4	2013-08-22	County Hwy Agency	1961	7 Good	7 Good	6 Satisfactory		Poor	Timb Bridge Railing	44.658219	-122.963011	Not Eligible
12795 065200084	12795	C0000	0.84	Spring Creek, Plagmann Dr	Plagmann Dr.	SPRING CREEK	75	24.6	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	90.7	2013-08-22	County Hwy Agency	1961	7 Good	7 Good	6 Satisfactory		Fair	Metal Rail Coated	44.6582	-122.95705	Not Eligible
12796 065200141	12796	C0000	1.41	Oflow , Plagmann Dr	PLAGMANN DRIVE	O'FLOW	60	24.5	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	79.5	2013-08-22	County Hwy Agency	1961	7 Good	7 Good	6 Satisfactory		Fair	Timb Bridge Railing	44.6599	-122.948069	Rehabilitation
12799 065400027	12799	C0000	0.27	Mill Creek, Freitag Rd	FREITAG RD	MILL CREEK	58	25.5	2	22 Channel Beam	1 Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	63.7	2013-08-22	County Hwy Agency	1959	7 Good	6 Satisfactory	4 Poor		Good	Metal Rail Coated	44.668219	-122.967231	Rehabilitation
12805 007A00254	12805	C0000	2.54	Crabtree Creek, Gilkey Rd	GILKEY RD	CRABTREE CREEK	133	28.5	2	02 Stringer/Girder	2 Concrete Continuous	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	31.1	2013-08-20	County Hwy Agency	1953	6 Satisfactory	6 Satisfactory	3 Serious		Fair	Metal Rail Coated	44.67325	-122.919119	Replacement
12812 076500727	12812	C0000	7.27	Courtney Creek, Courtney Creek Dr at MP 7.27	COURTNEY CR DR	COURTNEY CR	32	32	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	96.7	2013-05-23	County Hwy Agency	1971	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.365989	-122.944711	Not Eligible
12817 076500497	12817	C0000	4.97	Courtney Creek, Courtney Creek Dr at MP 4.97	COURTNEY CR DR	COURTNEY CR	40	28	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	74.1	2013-05-23	County Hwy Agency	1975	7 Good	7 Good	5 Fair		Good	Metal Rail Coated	44.346681	-122.923769	Rehabilitation
12820 001700047	12820	C0000	0.47	Brush Creek, Brush Creek Rd	BRUSH CR RD	BRUSH CREEK	72	30.9	2	02 Stringer/Girder	1 Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	77.3	2013-07-18	County Hwy Agency	1960	7 Good	7 Good	6 Satisfactory		Good	Conc Bridge Railing	44.34975	-122.848331	Rehabilitation
12826 076400029	12826	C0000	0.29	West Brush Creek, West Brush Creek Rd	W BRUSH CR ROAD	W BRUSH CR	37	24.5	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	90.5	2013-07-17	County Hwy Agency	1964	7 Good	7 Good	6 Satisfactory		Poor	Timb Bridge Railing	44.3272	-122.840469	Not Eligible
12827 076400052	12827	C0000	0.52	Tributary of West Brush Creek, West Brush Creek Rd	W BRUSH CR ROAD	TRIB OF WEST BRUSH CREEK	25	23.8	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	87.7	2013-07-18	County Hwy Agency	1967	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.3246	-122.842261	Not Eligible
12853 075700001	12853	C0000	0.01	Calapooia River, McClun Rd	MCCLUN ROAD	CALAPOOIA RIVER	121	16.6	1	10 Truss-Thru	3 Steel	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	39.5	2013-07-22	County Hwy Agency	1967	6 Satisfactory	6 Satisfactory	7 Good		Poor	Metal Rail Coated	44.333169	-122.7541	Replacement
12857 075600022	12857	C0000	0.22	Creek, McQueen Dr at MP 0.22	MCQUEEN DR	CREEK	31	24.5	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	77.5	2013-07-22	County Hwy Agency	1960	7 Good	7 Good	7 Good		Poor	Timb Bridge Railing	44.349319	-122.781711	Rehabilitation
12858 075600074	12858	C0000	0.74	Creek, McQueen Dr at MP 0.74	MCQUEEN DR	CREEK	24	26.3	2	02 Stringer/Girder	1 Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	54.6	2013-07-22	County Hwy Agency	1958	7 Good	7 Good	4 Poor		Poor	Timb Bridge Railing	44.348661	-122.771869	Rehabilitation
12865 072500085	12865	C0000	0.85	Beaver Creek, Mount Pleasant Rd	MT PLEASANT RD	BEAVER CR	49	25.4	2	22 Channel Beam	1 Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	55.8	2013-07-30	County Hwy Agency	1958	7 Good	7 Good	4 Poor		Good	Metal Rail Coated	44.568131	-122.758739	Rehabilitation
12871 084500034	12871		0.34	Beaver Creek, County Rd 845	COUNTY RD 845	BEAVER CR	16	34.5	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	NA	96.9	##############	County Hwy Agency	1961	7 Good	8 Very Good	6 Satisfactory				44.580158	-122.743475	Not Eligible
12872 084500152	12872	C0000	1.52	Beaver Creek, Ford Mill Rd	FORD MILL RD	BEAVER CR	57	24.5	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	78	2013-07-30	County Hwy Agency	1961	7 Good	7 Good	6 Satisfactory		Poor	Timb Bridge Railing	44.568919	-122.732031	Rehabilitation
12876 064800677	12876	C0000	6.77	Crabtree Creek, Fish Hatchery Dr	FISH HATCHERY RD	CRABTREE CREEK	168	20	1	10 Truss-Thru	7 Wood or Timber	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	44.2	2013-11-06	County Hwy Agency	1939	7 Good	4 Poor	6 Satisfactory		Poor	Timb Bridge Railing	44.630331	-122.740789	Replacement
12877 064800680	12877	C0000	6.8	Roaring River, Fish Hatchery Dr	FISH HATCHERY DR.	ROARING RIVER	74	22.5	2	02 Stringer/Girder	3 Steel	County Hwy Agency	2 20.0-29.9%below	Not Deficient	57.5	2013-08-16	County Hwy Agency	1952	7 Good	6 Satisfactory	6 Satisfactory		Poor	Timb Bridge Railing	44.63065	-122.740019	Rehabilitation
12879 067700317	12879		3.17	Creek, County Rd 677 at MP 3.17	COUNTY RD 677	CREEK	16	32	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	NA	97	##############	County Hwy Agency	1974	8 Very Good	8 Very Good	7 Good				44.599572	-122.753594	Not Eligible
12880 067700330	12880		3.3	Creek, County Rd 677 at MP 3.30	COUNTY RD 677	CREEK	16	32	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	NA	97	##############	County Hwy Agency	1974	8 Very Good	8 Very Good	8 Very Good				44.599092	-122.7511	Not Eligible
12881 067900050	12881		0.5	Irrigation Ditch, County Rd 679	COUNTY RD 679	DITCH	8	28.8	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	NA	91.5	##############	County Hwy Agency	1964	8 Very Good	8 Very Good	8 Very Good				44.606289	-122.814233	Not Eligible
12883 064800053	12883	C0000	0.53	Beaver Creek, Fish Hatchery Dr	FISH HATCHERY DR.	BEAVER CREEK	121	36	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	69.4	2013-08-16	County Hwy Agency	1970	7 Good	7 Good	4 Poor		Fair	Metal Rail Coated	44.633619	-122.854839	Rehabilitation
12902 083400027	12902	C0000	0.27	Neal Creek, Lulay Rd	LULAY RD	NEAL CR	91	22.5	2	02 Stringer/Girder	3 Steel	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	59.7	2013-08-12	County Hwy Agency	1948	7 Good	6 Satisfactory	6 Satisfactory		Fair	Metal Rail Coated	44.707569	-122.712511	Rehabilitation
12905 083800089	12905	C0000	0.89	Roaring River, Fish Hatchery Drive	FISH HATCHERY DR	ROARING RIVER	50	23.8	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	72.7	2013-08-16	County Hwy Agency	1965	7 Good	7 Good	6 Satisfactory		Good	Metal Rail Coated	44.624511	-122.724781	Rehabilitation
12908 064500057	12908		0.57	Irrigation Ditch, County Rd 645	COUNTY RD 645	DITCH	12	28	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	NA	93	##############	County Hwy Agency	1961	8 Very Good	8 Very Good	8 Very Good				44.647008	-122.789181	Not Eligible
12911 091201280	12911	C0000	9.4	Green Peter Reservoir, Quartzville Dr	QUARTZVILLE DR	GREEN PETER RESERVOIR	578	29.8	2	03 Girder-Floorbeam	4 Steel Continuous	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	67.9	2013-08-13	County Hwy Agency	1963	7 Good	6 Satisfactory	5 Fair		Fair	Metal Rail Coated	44.487969	-122.509781	Rehabilitation
12940 630 00329	12940	C0000	3.29	Sucker Creek, Robinson Rd	ROBINSON RD	SUCKER CR	31	24.1	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	74.8	2013-08-18	County Hwy Agency	1967	7 Good	7 Good	5 Fair		Fair	Metal Rail Coated	44.705831	-122.916869	Rehabilitation
12942 062900054	12942	C0000	0.54	Creek, Goar rd at MP 0.54	GOAR ROAD	CREEK	61	27.9	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	79	2013-08-18	County Hwy Agency	1968	7 Good	7 Good	5 Fair		Good	Metal Rail Coated	44.69605	-122.902869	Rehabilitation
12943 062900107	12943	C0000	1.07	Thomas Creek, County Rd 629	GOAR ROAD	THOMAS CREEK	201	18.2	1	10 Truss-Thru	7 Wood or Timber	County Hwy Agency	0 >39.9% below	Structurally Deficient	26.8	2013-08-22	County Hwy Agency	1939	6 Satisfactory	4 Poor	5 Fair		Fair	Timb Bridge Railing	44.687919	-122.903411	Replacement
12948 083000007	12948	C0000	0.07	Thomas Creek, Camp Morrison Rd	CAMP MORRISON RD	THOMAS CREEK	153	20.4	1	10 Truss-Thru	7 Wood or Timber	County Hwy Agency	2 20.0-29.9%below	Structurally Deficient	43.1	2013-10-30	County Hwy Agency	1936	7 Good	5 Fair	7 Good		Poor	Timb Bridge Railing	44.712111	-122.718689	Replacement
12951 831 00156	12951	C0000	1.56	Neal Creek, East Bilyeu Creek Rd	E.BILYEU CR RD	NEAL CREEK	69	24.8	2	02 Stringer/Girder	2 Concrete Continuous	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	59.5	2013-08-12	County Hwy Agency	1960	7 Good	6 Satisfactory	7 Good		Good	Conc Bridge Railing	44.704139	-122.66705	Rehabilitation
12952 083200053	12952	C0000	0.53	Neal Creek, Bilyeu Creek Rd	BILYEU CR RD	NEAL CREEK	76	24.8	2	02 Stringer/Girder	2 Concrete Continuous	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	80	2013-08-12	County Hwy Agency	1954	7 Good	6 Satisfactory	7 Good		Fair	Conc Bridge Railing	44.709631	-122.69185	Rehabilitation
12954 083400166	12954	C0000	1.66	South Fork Neal Creek, Lulay Rd	LULAY RD	S FORK NEAL CR	72	25.3	2	02 Stringer/Girder	1 Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	86	2013-08-12	County Hwy Agency	1959	7 Good	7 Good	6 Satisfactory		Fair	Timb Bridge Railing	44.698119	-122.692439	Not Eligible
12957 083300063	12957	C0000	0.63	South Fork Neal Creek, Burmester Dr	BURMESTER DRIVE	S FORK NEAL CR	72	24	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	96	2013-08-12	County Hwy Agency	1968	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.698439	-122.680319	Not Eligible
12962 835 00005	12962	C0000	0.05	South Fork Neal Creek, Zurfluh Rd	ZURFLUH RD	S FORK NEAL CR	50	24	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	90.6	2013-08-12	County Hwy Agency	1967	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.7029	-122.709031	Not Eligible
12965 063700070	12965	C0000	0.7	Thomas Creek, Richardson Gap Rd North	RICHARDSON GAP N.	THOMAS CREEK	225	22.8	2	10 Truss-Thru	7 Wood or Timber	County Hwy Agency	5 At/Above Legal Loads	Functionally Obsolete	64	2013-11-07	County Hwy Agency	1966	7 Good	6 Satisfactory	6 Satisfactory		Poor	Timb Bridge Railing	44.715811	-122.804389	Rehabilitation
12974 060400124	12974	C0000	1.24	Bear Creek, Cole School Rd	COLE SCHOOL RD	BEAR CREEK	31	32	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	48.5	2013-08-12	County Hwy Agency	1965	7 Good	7 Good	4 Poor		Good	Metal Rail Coated	44.755639	-122.804481	Replacement
12979 080100166	12979		1.66	Swale, County Rd 801 at MP 1.66	COUNTY RD 801	SWALE	15	28	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	NA	95.9	##############	County Hwy Agency	1962	8 Very Good	8 Very Good	8 Very Good				44.779953	-122.743267	Not Eligible
12982 061100430	12982	C0000	4.3	Bear Creek, Stayton Scio Rd	STAYTON-SCIO RD	BEAR CREEK	33	36	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	96.4	2013-08-12	County Hwy Agency	1975	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.76055	-122.824789	Not Eligible
13188 001300188	13188	C0000	1.88	Muddy Creek, Fayetteville Dr	FAYETTEVILLE DR.	MUDDY CREEK	288	31.9	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	50.7	2013-05-29	County Hwy Agency	1977	7 Good	7 Good	7 Good		Fair	Metal Rail Coated	44.459631	-123.17495	Rehabilitation
13557 001300557	13557	C0000	5.57	Overflow , Boston Mill Rd at MP 5.57	BOSTON MILL RD	OVERFLOW	252	32	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	52.7	2013-07-17	County Hwy Agency	1977	7 Good	7 Good	3 Serious		Fair	Metal Rail Coated	44.461689	-123.10275	Rehabilitation
14002 061600003	14002		0.03	Slough, County Rd 616	COUNTY RD 616	SLOUGH	19	24	2	01 Slab	1 Concrete	County Hwy Agency	5 At/Above Legal Loads	NA	77.4	##############	County Hwy Agency	1963	8 Very Good	8 Very Good	8 Very Good				44.7278	-122.885003	Rehabilitation
14009 615 00071	14009	C0000	0.71	Smallman Creek, Hess Rd	HESS RD	SMALLMAN CREEK	31	22.2	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	64.9	2013-08-17	County Hwy Agency	1964	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.74865	-122.866069	Rehabilitation
14012 061700092	14012	C0000	0.92	Smallman Creek, Miller Rd	MILLER RD	SMALLMAN CREEK	97	18.5	1	02 Stringer/Girder	7 Wood or Timber	County Hwy Agency	5 At/Above Legal Loads	Functionally Obsolete	64.3	2013-08-18	County Hwy Agency	1950	7 Good	6 Satisfactory	5 Fair		Poor	Timb Bridge Railing	44.740419	-122.894461	Rehabilitation
14025 091300167	14025	C0000	0.01	South Santiam River, High Deck Rd	HIGH DECK ROAD	SOUTH SANTIAM RIVER	174	19.5	2	10 Truss-Thru	7 Wood or Timber	County Hwy Agency	5 At/Above Legal Loads	Functionally Obsolete	48.4	2013-11-06	County Hwy Agency	1945	7 Good	6 Satisfactory	6 Satisfactory		Good	Metal Rail Coated	44.391569	-122.50975	Replacement
14042 063400185	14042		1.85	Creek, County Rd 634 at MP 1.85	COUNTY RD 634	CREEK	20	28	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	NA	95.9	##############	County Hwy Agency	1962	7 Good	8 Very Good	8 Very Good				44.666811	-122.840147	Not Eligible
14043 063400073	14043		0.73	Irrigation Ditch, County Rd 634 at MP 0.73	COUNTY RD 634	DITCH	20	26	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	NA	91.4	##############	County Hwy Agency	1978	8 Very Good	8 Very Good	8 Very Good				44.667867	-122.819564	Not Eligible
14046 082400003	14046	C0000	0.03	Jordan Creek, Homestead Rd	HOMESTEAD RD	JORDAN CR	29	24.5	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	58.3	2013-08-17	County Hwy Agency	1960	7 Good	7 Good	4 Poor		Poor	Timb Bridge Railing	44.751581	-122.66685	Rehabilitation
14048 080700281	14048		2.81	Jordon Creek, County Rd 807 at MP 2.81	COUNTY RD 807	JORDON CR	16	24	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	NA	90.5	##############	County Hwy Agency	1967	7 Good	8 Very Good	8 Very Good				44.752533	-122.627981	Not Eligible
14049 080700344	14049		3.44	Jordon Creek, County Rd 807 at MP 3.44	COUNTY RD 807	JORDON CR	16	22	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	NA	90.4	##############	County Hwy Agency	1965	7 Good	8 Very Good	8 Very Good				44.743886	-122.629447	Not Eligible
14054 081300028	14054	C0000	0.28	De Ford Creek, Kingwood Ave	KINGWOOD AVE	DE FORD CR	31	33.6	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	69.9	2013-08-17	County Hwy Agency	1958	7 Good	7 Good	4 Poor		Fair	Timb Bridge Railing	44.747511	-122.491631	Rehabilitation
14055 081300274	14055	C0000	2.74	Rock Creek, Kingwood Ave	KINGWOOD AVE	ROCK CREEK	230	30	2	02 Stringer/Girder	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	79.3	2013-08-17	County Hwy Agency	1965	7 Good	7 Good	7 Good		Good	Conc Bridge Railing	44.748981	-122.445911	Rehabilitation
14069 060100028	14069	C0000	0.28	North Santiam River Overflow , Stayton Scio Rd	STAYTON-SCIO RD	N SANTIAM R OVERFLOW	103	39	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Functionally Obsolete	56.4	2013-08-12	County Hwy Agency	1964	7 Good	7 Good	7 Good		Fair	Conc Bridge Railing	44.788731	-122.794389	Rehabilitation
14070 064700068	14070	C0000	0.68	Creek, Hungry Hill Dr	HUNGRY HILL DR.	CREEK	61	32	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	85.8	2013-08-16	County Hwy Agency	1971	7 Good	6 Satisfactory	5 Fair		Fair	Metal Rail Coated	44.644811	-122.902281	Not Eligible
15378 001500378	15378	C0000	3.78	Tub Run Creek, Gap Rd	GAP ROAD	TUB RUN CREEK	33	31.9	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	69.6	2013-05-23	County Hwy Agency	1974	7 Good	4 Poor	7 Good		Good	Metal Rail Coated	44.293281	-122.994181	Rehabilitation
16765 082300057	16765	C0000	0.57	Creek, Green Mountain Dr	GREEN MOUNTAIN DR	CREEK	24	24	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	90.6	2013-08-17	County Hwy Agency	1967	7 Good	7 Good	6 Satisfactory		Good	Metal Rail Coated	44.74685	-122.361439	Not Eligible
16780 210 00777	16780	210	7.73	Hwy 210 over UPRR	OR 34 (HWY 210)	UPRR	195	88.7	4	02 Stringer/Girder	5 Prestressed Concrete	State Highway Agency	5 At/Above Legal Loads	Not Deficient	71.1	2012-10-24	State Highway Agency	1990	6 Satisfactory	7 Good	7 Good	1 Meets Standards	Fair	Conc Bridge Railing	44.555878	-123.108383	Rehabilitation
17198 210 00780	17198	210	7.8	Hwy 210 over Tangent Industrial Park Access	OR 34 (HWY 210)	INDUSTRIAL PARK ACCESS	41.7	183	4	07 Frame	1 Concrete	State Highway Agency	5 At/Above Legal Loads	Not Deficient	83	2012-10-24	State Highway Agency	1990	7 Good	7 Good	7 Good				44.555889	-123.10675	Not Eligible
17342 001 24042	17342	001	240.42	Santiam Oflow No 4, Hwy 1 NB at MP 240.42	I-5 (HWY 1) NB	SANTIAM O'FLOW NO. 4	170	62.7	3	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	90.9	2013-02-06	State Highway Agency	1994	5 Fair	6 Satisfactory	7 Good	1 Meets Standards	Good	Conc Bridge Railing	44.733503	-123.052897	Not Eligible
17350 016F04141	17350		41.41	Santiam River, Cascadia State Park Rd (Park Br)	PARK ENTRANCE	SANTIAM RIVER	198	22		09 Truss-Deck	7 Wood or Timber	11 State Pk/Frst/Reserve	5 At/Above Legal Loads		0	2013-11-25	11 State Pk/Frst/Reserve	1994					Poor	Metal Rail Coated	44.398119	-122.481131	NA
17971 016 04307	17971	016	43.07	Canyon Creek, Hwy 16	US 20 (HWY 16)	CANYON CREEK	195	46.7	2	02 Stringer/Girder	5 Prestressed Concrete	State Highway Agency	5 At/Above Legal Loads	Not Deficient	86.6	2014-02-18	State Highway Agency	1997	7 Good	6 Satisfactory	6 Satisfactory	1 Meets Standards	Good	Conc Bridge Railing	44.396953	-122.449353	Not Eligible
17973 212 01678	17973	212	16.78	Calapooia River, Hwy 212 at MP 16.78 (Matlock)	OR 228 (HWY 212)	CALAPOOIA RIVER	240	53.7	2	02 Stringer/Girder	5 Prestressed Concrete	State Highway Agency	5 At/Above Legal Loads	Not Deficient	53.1	2014-02-19	State Highway Agency	1997	6 Satisfactory	7 Good	6 Satisfactory	1 Meets Standards	Fair	Conc Bridge Railing	44.35025	-122.786447	Rehabilitation
18005 000000003	18005	C0000	0.03	Wiley Creek, Mandee Ln	MANDEE LANE	WILEY CREEK	101	16	1	05 Multiple Box Beam	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	81.3	2013-07-22	County Hwy Agency	1995	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.398869	-122.661239	Not Eligible
18006 000 00040	18006	C0000	0.39	East Channel Willamette River, Stahlbusch Rd	STAHLBUSCH ISL RD	WILLAMETTE R. E.CHANNEL	183	23.8	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	91.2	2013-08-21	County Hwy Agency	1996	7 Good	7 Good	6 Satisfactory		Fair	Metal Rail Coated	44.549311	-123.2295	Not Eligible
18346 001 23571	18346	001	235.71	Murder Creek, Hwy 1 NB	I-5 (HWY 1) NB	MURDER CREEK	111.5	44	2	02 Stringer/Girder	5 Prestressed Concrete	State Highway Agency	5 At/Above Legal Loads	Not Deficient	94.7	2013-02-04	State Highway Agency	2001	5 Fair	7 Good	7 Good	1 Meets Standards	Fair	Conc Bridge Railing	44.665947	-123.058661	Not Eligible
18347 001 23822	18347	001	238.22	Hwy 1 NB over UPRR & Hwy 164	I-5 (HWY 1) NB	UPRR & HWY 164	400.3	61.7	3	02 Stringer/Girder	5 Prestressed Concrete	State Highway Agency	5 At/Above Legal Loads	Not Deficient	93.7	2012-10-29	State Highway Agency	2001	6 Satisfactory	7 Good	7 Good	1 Meets Standards	Fair	Conc Bridge Railing	44.701861	-123.051919	Not Eligible
18348 001 23935	18348	001	239.35	Santiam Oflow No 7, Hwy 1 NB at MP 239.35	I-5 (HWY 1) NB	SANTIAM OFLOW NO. 7	196.8	44	2	01 Slab	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	93.4	2013-02-05	State Highway Agency	2001	6 Satisfactory	6 Satisfactory	7 Good	1 Meets Standards	Fair	Conc Bridge Railing	44.718133	-123.0544	Not Eligible
18350 001 23985	18350	001	239.85	Santiam Oflow No 6, Hwy 1 NB at MP 239.85	I-5 (HWY 1) NB	SANTIAM OFLOW NO. 6	301.8	49.9	3	01 Slab	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	91.3	2013-02-05	State Highway Agency	2001	6 Satisfactory	6 Satisfactory	7 Good	1 Meets Standards	Fair	Conc Bridge Railing	44.725156	-123.053686	Not Eligible
18351 001 24003	18351	001	240.03	Santiam Oflow No 10, Hwy 1 NB at MP 240.03	I-5 (HWY 1) NB	SANTIAM OFLOW NO. 10	108.3	44	2	01 Slab	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	93.4	2013-02-05	State Highway Agency	2001	6 Satisfactory	6 Satisfactory	7 Good	1 Meets Standards	Fair	Conc Bridge Railing	44.727917	-123.053422	Not Eligible
18352 001 24020	18352	001	240.2	Santiam Oflow No 5, Hwy 1 NB at MP 240.20	I-5 (HWY 1) NB	SANTIAM OFLOW NO. 5	118.1	44	2	01 Slab	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	90.1	2013-02-06	State Highway Agency	2001	6 Satisfactory	6 Satisfactory	7 Good	1 Meets Standards	Fair	Conc Bridge Railing	44.730375	-123.053233	Not Eligible
18463 210 01248	18463	210	12.48	Oak Creek, Hwy 210	OR 34 (HWY 210)	OAK CREEK	70.5	80	4	01 Slab	5 Prestressed Concrete	State Highway Agency	5 At/Above Legal Loads	Not Deficient	86.8	2012-10-24	State Highway Agency	2000	6 Satisfactory	7 Good	7 Good	1 Meets Standards	Fair	Conc Bridge Railing	44.555525	-123.014469	Not Eligible
18731 016 04882	18731	016	48.82	Trout Creek, Hwy 16	US 20 (HWY 16)	TROUT CREEK	59	36	2	01 Slab	5 Prestressed Concrete	State Highway Agency	5 At/Above Legal Loads	Not Deficient	87.9	2014-02-18	State Highway Agency	2003	7 Good	7 Good	7 Good	1 Meets Standards	Good	Conc Bridge Railing	44.398528	-122.347844	Not Eligible
18750 00000 001	18750	C0000	0.1	McKenzie River, Public Rd	PUBLIC ROAD	MCKENZIE RIVER	182	20	2	02 Stringer/Girder	6 P/S Conc Continuous	25 Other Local Agencies	5 At/Above Legal Loads	Functionally Obsolete	56.3	2012-07-12	25 Other Local Agencies	1960	5 Fair	8 Very Good	5 Fair		Poor	Metal Rail Coated	44.285861	-122.040239	Rehabilitation
18812 705 00000	18812	C0000	0.15	Santiam Oflow , Higbee Rd	HIGBEE ROAD	SANTIAM O'FLOW	197.5	24	2	01 Slab	2 Concrete Continuous	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	81.2	2013-08-19	County Hwy Agency	2000	7 Good	6 Satisfactory	7 Good		Good	Metal Rail Coated	44.724981	-123.051081	Not Eligible
18876 164 00673	18876	164	6.73	Santiam River Oflow , Hwy 164 at MP 6.73	HWY 164	SANTIAM RIVER OFLOW	232.9	40	2	01 Slab	5 Prestressed Concrete	State Highway Agency	5 At/Above Legal Loads	Not Deficient	91.8	2013-07-01	State Highway Agency	2001	5 Fair	7 Good	7 Good	1 Meets Standards	Good	Conc Bridge Railing	44.712281	-123.023219	Not Eligible
18893 016 00392	18893	016	3.92	Burkhart Creek, Hwy 16	US 20 (HWY 16)	BURKHART CREEK	77.1	38.1	2	02 Stringer/Girder	5 Prestressed Concrete	State Highway Agency	5 At/Above Legal Loads	Not Deficient	83.4	2014-02-12	State Highway Agency	2002	7 Good	7 Good	7 Good	1 Meets Standards	Good	Conc Bridge Railing	44.630114	-123.004067	Not Eligible
18963 720 00012	18963	C0000	0.12	Hamilton Creek, Plagman Rd	PLAGMAN ROAD	HAMILTON CR	76.3	32.2	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	96.9	2013-07-26	County Hwy Agency	2002	8 Very Good	8 Very Good	8 Very Good		Good	Metal Rail Coated	44.5104	-122.833611	Not Eligible
19178 162 07565	19178	162	75.65	North Santiam River, Hwy 162	OR 22 (HWY 162)	N SANTIAM RIVER	154.5	42.1	2	02 Stringer/Girder	5 Prestressed Concrete	State Highway Agency	5 At/Above Legal Loads	Not Deficient	90.1	2013-08-14	State Highway Agency	2005	6 Satisfactory	7 Good	7 Good	1 Meets Standards	Good	Conc Bridge Railing	44.5008	-122.003239	Not Eligible
19181 162 06278	19181	162	62.78	Pamelia Creek, Hwy 162	OR 22 (HWY 162)	PAMELIA CREEK	128	42.1	2	02 Stringer/Girder	5 Prestressed Concrete	State Highway Agency	5 At/Above Legal Loads	Not Deficient	89.8	2013-08-14	State Highway Agency	2005	6 Satisfactory	7 Good	7 Good	1 Meets Standards	Good	Conc Bridge Railing	44.662869	-121.9565	Not Eligible
19183 162 06642	19183	162	66.42	Marion Creek, Hwy 162	OR 22 (HWY 162)	MARION CREEK	130	42.1	2	02 Stringer/Girder	5 Prestressed Concrete	State Highway Agency	5 At/Above Legal Loads	Not Deficient	89.8	2013-08-14	State Highway Agency	2005	6 Satisfactory	7 Good	7 Good	1 Meets Standards	Fair	Conc Bridge Railing	44.614289	-121.948581	Not Eligible
19220 001 24020	19220	001	240.2	Santiam Oflow No 5, Hwy 1 SB at MP 240.20	I-5 (HWY 1) SB	SANTIAM OFLOW NO. 5	114.8	44.4	2	01 Slab	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	94.2	2013-02-06	State Highway Agency	2003	6 Satisfactory	6 Satisfactory	7 Good	1 Meets Standards	Good	Conc Bridge Railing	44.730353	-123.053572	Not Eligible
19222 001 24003	19222	001	240.03	Santiam Oflow No 10, Hwy 1 SB at MP 240.03	I-5 (HWY 1) SB	SANTIAM OFLOW NO. 10	114.8	44.4	2	01 Slab	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	94.4	2013-02-05	State Highway Agency	2003	6 Satisfactory	6 Satisfactory	7 Good	1 Meets Standards	Good	Conc Bridge Railing	44.726847	-123.053833	Not Eligible
19224 001 23985	19224	001	239.85	Santiam Oflow No 6, Hwy 1 SB at MP 239.85	I-5 (HWY 1) SB	SANTIAM OFLOW NO. 6	301.8	56.2	3	01 Slab	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	94.4	2013-02-05	State Highway Agency	2003	7 Good	7 Good	7 Good	1 Meets Standards	Good	Conc Bridge Railing	44.724511	-123.054119	Not Eligible
19226 001 23935	19226	001	239.35	Santiam Oflow No 7, Hwy 1 SB at MP 239.35	I-5 (HWY 1) SB	SANTIAM OFLOW NO. 7	196.8	44.4	2	01 Slab	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	94.4	2013-02-05	State Highway Agency	2003	6 Satisfactory	6 Satisfactory	7 Good	1 Meets Standards	Good	Conc Bridge Railing	44.718003	-123.054825	Not Eligible
19227 001 23822	19227	001	238.22	Hwy 1 SB over UPRR & Hwy 164	I-5 (HWY 1) SB	UPRR & JEFFERSON HWY	456	70	3	02 Stringer/Girder	6 P/S Conc Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	94.8	2012-10-29	State Highway Agency	2005	7 Good	7 Good	7 Good	1 Meets Standards	Good	Conc Bridge Railing	44.7016	-123.052189	Not Eligible
19585 706 00079	19585	C0000	0.79	Oak Creek, Agan Rd	AGAN ROAD	OAK CREEK	60.4	28	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	97	2013-07-21	County Hwy Agency	2000	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.534006	-122.974753	Not Eligible
19677 000 00000	19677	C0000	0.1	Mad Creek, Morrison Rd	MORRISON RD	MAD CREEK	50	16	1	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Functionally Obsolete	75.5	2013-08-17	County Hwy Agency	2001	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.745319	-122.3908	Rehabilitation
19687 360100041	19687	C0000	0.41	One Horse Slough, Shady Oak Lane	SHADY OAK LANE	ONE HORSE SLOUGH	61.6	24	2	01 Slab	5 Prestressed Concrete	25 Other Local Agencies	5 At/Above Legal Loads	Not Deficient	82	2013-07-30	25 Other Local Agencies	2002	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.586269	-122.861511	Not Eligible
19730 041800175	19730	C0418	1.75	Calapooia River, Driver Rd	DRIVER ROAD	CALAPOOIA RIVER	120.1	31.3	2	02 Stringer/Girder	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	99	2013-07-17	County Hwy Agency	2006	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.499492	-123.093214	Not Eligible
19844 767 00194	19844	C0000	1.94	Warren Creek, Northern Dr	NORTHERN DR.	WARREN CR	45.5	32	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	97.5	2013-07-18	County Hwy Agency	2003	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.388478	-122.932442	Not Eligible
20221 030400116	20221	C0000	1.16	Overflow , Hoefer Rd	HOEFER ROAD	OVERFLOW	60	32.8	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	99.9	2013-08-19	County Hwy Agency	2007	8 Very Good	7 Good	8 Very Good		Good	Metal Rail Coated	44.724417	-123.071606	Not Eligible
20257 012200203	20257	C0000	2.03	Calapooia River, Tangent Dr	TANGENT DR	CALAPOOIA RIVER	121	32	2	05 Multiple Box Beam	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	99.7	2013-07-16	County Hwy Agency	2008	8 Very Good	8 Very Good	8 Very Good		Good	Metal Rail Coated	44.533414	-123.144094	Not Eligible
20331 041600043	20331	C0000	0.43	Calapooia River, Wirth Rd	WIRTH ROAD	CALAPOOIA RIVER	233	32.7	2	02 Stringer/Girder	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	98.6	2013-07-17	County Hwy Agency	2008	7 Good	7 Good	7 Good		Good	Conc Bridge Railing	44.486147	-123.080514	Not Eligible
20344 058 02504	20344	058	25.04	Big Muddy Creek, Hwy 58	OR 99E (HWY 58)	BIG MUDDY CREEK	168	42.7	2	06 Single/Spread Box	6 P/S Conc Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	96.8	2014-02-11	State Highway Agency	2008	7 Good	7 Good	7 Good	1 Meets Standards	Good	Conc Bridge Railing	44.311647	-123.126419	Not Eligible
20345 058 02406	20345	058	24.06	Creek, Hwy 58 at MP 24.06	OR 99E (HWY 58)	CREEK	50	44	2	01 Slab	5 Prestressed Concrete	State Highway Agency	5 At/Above Legal Loads	Not Deficient	97.7	2014-02-11	State Highway Agency	2008	7 Good	7 Good	7 Good	1 Meets Standards	Good	Conc Bridge Railing	44.322083	-123.113333	Not Eligible
20396 001 22113	20396	001	221.13	Sodom Ditch, Hwy 1 NB	I-5 (HWY 1) NB	SODOM DITCH	330	62.7	2	06 Single/Spread Box	6 P/S Conc Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	96.5	2012-12-10	State Highway Agency	2009	6 Satisfactory	7 Good	7 Good		Good	Conc Bridge Railing	44.454886	-123.061303	Not Eligible
20397 001 22113	20397	001	221.13	Sodom Ditch, Hwy 1 SB	I-5 (HWY 1) SB	SODOM DITCH	330	62.7	2	06 Single/Spread Box	6 P/S Conc Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	96.5	2012-12-10	State Highway Agency	2009	7 Good	7 Good	7 Good	1 Meets Standards	Good	Conc Bridge Railing	44.454942	-123.061689	Not Eligible
20399 058 02338	20399	058	23.38	Little Muddy Creek, Hwy 58	OR 99E (HWY 58)	LITTLE MUDDY CREEK	175	42.7	2	06 Single/Spread Box	6 P/S Conc Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	92.5	2014-02-11	State Highway Agency	2007	7 Good	8 Very Good	8 Very Good	1 Meets Standards	Good	Conc Bridge Railing	44.330828	-123.108372	Not Eligible
20400 058 02680	20400	058	26.8	Camous Creek, Hwy 58	OR 99E (HWY 58)	CAMOUS CREEK	70	44	2	01 Slab	5 Prestressed Concrete	State Highway Agency	5 At/Above Legal Loads	Not Deficient	97.7	2014-02-11	State Highway Agency	2008	7 Good	7 Good	7 Good	1 Meets Standards	Good	Conc Bridge Railing	44.292717	-123.150244	Not Eligible

Bridge Inventory (Within Linn County and Outside Urban Growth Boundaries)

BRKEY	BRIDGE_ID	HWYNUMB	MP	BRIDGE_NAM	CARRIES	CROSSES	LENGTH_FT	WIDTH_FT	LANES	DESIGN	MATERIAL	OWNER	POSTING	SD_FO	SUF_RATING	INSP_DATE	CUSTODIAN	YEAR	DKRATING	SUPRATING	SUBRATING	RAILRATING	RAILCOND	RAILMAT	LAT	LONGTD	FHWA_FundingStatus
20474 050500091	20474	C0000	0.91	Courtney Creek, Weber Rd	WEBER ROAD	COURTNEY CREEK	61	28	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	95.4	2013-07-18	County Hwy Agency	2005	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.373692	-123.015689	Not Eligible
20790 063400032	20790	C0634	0.32	Irrigation Ditch, Montgomery Dr	MONTGOMERY DR.	DITCH	22	32.3	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	97.7	2013-08-16	County Hwy Agency	2006	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.666803	-122.839853	Not Eligible
20925 030200142	20925	C0000	1.42	Swale, Cooper Rd at MP 1.42	COOPER ROAD	SWALE	50	28.3	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	98	2013-08-19	County Hwy Agency	2008	8 Very Good	7 Good	8 Very Good		Good	Metal Rail Coated	44.729478	-123.101397	Not Eligible
20926 067000358	20926	C0000	3.58	Beaver Creek, Baptist Church Rd	BAPTIST CHURCH RD	BEAVER CREEK	59	32.5	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	99.6	2013-07-30	County Hwy Agency	2008	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.591731	-122.810236	Not Eligible
20927 001700499	20927	C0000	3.15	Brush Creek, Brush Creek Rd	BRUSH CR RD	BRUSH CREEK	28.6	32.3	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	83.3	2013-07-18	County Hwy Agency	2008	7 Good	7 Good	5 Fair		Good	Metal Rail Coated	44.319831	-122.821222	Not Eligible
20971 000 00000	20971	C0000	2.49	LARWOOD DRIVE BRIDGE AT M.P. 2.49	LARWOOD DRIVE	DITCH	23.5	20	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	89.9	2013-08-22	County Hwy Agency	2008	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.653	-122.758742	Not Eligible
21278 076500024	21278	C0765	0.24	Brush Creek, Courtney Creek Dr	COURTNEY CR DR	BRUSH CREEK	60	28	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	88.2	2013-07-18	County Hwy Agency	2009	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.35455	-122.861142	Not Eligible
21354 000 00000	21354	C0000	0	Carmen Smith Diversion Bridge Forest Rd 750	CARMEN RESERVOIR	MCKENZIE RIVER	115	20	1	04 Tee Beam	5 Prestressed Concrete	25 Other Local Agencies	5 At/Above Legal Loads	Not Deficient	76.8	2012-07-12	25 Other Local Agencies	2010	8 Very Good	8 Very Good	8 Very Good		Good	Metal Rail Coated	44.340731	-122.00295	Rehabilitation
21471 065800235	21471	C0658	2.35	Burkhart Creek, Bolhken Dr at MP 2.35	BOLHKEN DRIVE	BURKHART CREEK	30	25.2	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	84.4	2013-07-31	County Hwy Agency	2009	8 Very Good	8 Very Good	8 Very Good		Good	Metal Rail Coated	44.596839	-122.971581	Not Eligible
21680 735 00004	21680	C0735	0.04	Oak Creek, Harrington Dr	HARRINGTON DR.	OAK CREEK	30	28	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	91.1	2013-07-22	County Hwy Agency	2010	8 Very Good	8 Very Good	8 Very Good		Good	Metal Rail Coated	44.466753	-122.867083	Not Eligible
21732 000 00317	21732	C0010	3.17	Oak Creek, Sand Ridge Rd	SAND RIDGE ROAD	OAK CREEK	55	32.2	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	93.7	2013-07-21	County Hwy Agency	2010	8 Very Good	8 Very Good	8 Very Good		Good	Conc Bridge Railing	44.530311	-122.96595	Not Eligible
22469 022400069	22469		0.69	Creek, County Rd 224 at MP 0.69	COUNTY RD 224	CREEK	20	31.9	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	NA	97	1991-02-01	County Hwy Agency	1975	7 Good	7 Good	7 Good		Fair	Metal Rail Coated	44.324061	-123.206525	Not Eligible
34167 003400167	34167	C0000	1.67	Crooks Creek, Dever Conner Rd	DEVER-CONNER ROAD	CROOKS CREEK	60	36	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	85.1	2013-08-19	County Hwy Agency	1976	7 Good	7 Good	5 Fair		Fair	Metal Rail Coated	44.719236	-123.085833	Not Eligible
72246 072200461	72246	C0000	4.61	Beaver Creek, Bellinger Scale Rd	BELLINGER SCALE RD	BEAVER CR	40	36	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	96.6	2013-07-30	County Hwy Agency	1979	7 Good	7 Good	7 Good		Fair	Metal Rail Coated	44.57275	-122.782942	Not Eligible
73913 073900137	73913	C0000	1.37	Oak Creek, Stoltz Hill Rd	STOLTZ HILL RD	OAK CREEK	24	32.2	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	64.4	2013-07-23	County Hwy Agency	1966	7 Good	7 Good	4 Poor		Poor	Metal Rail Coated	44.508472	-122.929919	Rehabilitation
83062 083000620	83062	C0000	6.2	Neal Creek, Camp Morrison Rd	CAMP MORRISON RD	NEAL CR	51	16	1	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	81.7	2013-08-17	County Hwy Agency	1972	7 Good	7 Good	6 Satisfactory		Good	Metal Rail Coated	44.687106	-122.628889	Not Eligible
91242 091200042	91242	C0000	1	Middle Fork Santiam River, Quartzville Dr	QUARTZVILLE DR	MIDDLE FORK SANTIAM R.	403	32.7	2	02 Stringer/Girder	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	71.7	2013-08-13	County Hwy Agency	1965	5 Fair	7 Good	5 Fair		Good	Metal Rail Uncoated	44.427269	-122.617386	Rehabilitation
93223 093200023	93223	C0000	0.23	South Santiam River, Quartzville Rd	QUARTZVILLE ROAD	SOUTH SANTIAM RIVER	403	32.7	2	02 Stringer/Girder	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	57.6	2013-08-12	County Hwy Agency	1963	7 Good	7 Good	6 Satisfactory		Good	Metal Rail Uncoated	44.416122	-122.621997	Rehabilitation
00360A164 00698	00360A	164	6.98	Santiam River Oflow, Hwy 164 at MP 6.98	HWY 164	SANTIAM RIVER OFLOW	473.1	29.5	2	01 Slab	5 Prestressed Concrete	State Highway Agency	5 At/Above Legal Loads	Functionally Obsolete	46.9	2013-07-01	State Highway Agency	1960	5 Fair	5 Fair	5 Fair	1 Meets Standards	Good	Metal Rail Coated	44.710867	-123.027769	Replacement
00552A058 01066	00552A	058	10.66	Creek, Hwy 58 at MP 10.66	OR 99E (HWY 58)	CREEK	38	34	2	22 Channel Beam	1 Concrete	State Highway Agency	5 At/Above Legal Loads	Not Deficient	60.8	2014-02-05	State Highway Agency	1954	6 Satisfactory	6 Satisfactory	6 Satisfactory	1 Meets Standards	Good	Metal Rail Coated	44.514772	-123.108636	Rehabilitation
00553A058 01072	00553A	058	10.72	Calapooia Bottoms, Hwy 58 at MP 10.72	OR 99E (HWY 58)	CALAPOOIA BOTTOMS 1	76	33.5	2	22 Channel Beam	1 Concrete	State Highway Agency	5 At/Above Legal Loads	Not Deficient	63.5	2014-02-05	State Highway Agency	1954	6 Satisfactory	6 Satisfactory	6 Satisfactory	1 Meets Standards	Good	Metal Rail Coated	44.5139	-123.108661	Rehabilitation
00561A058 01119	00561A	058	11.19	Calapooia Bottoms, Hwy 58 at MP 11.19	OR 99E (HWY 58)	CALAPOOIA BOTTOMS 2	323	33.5	2	22 Channel Beam	1 Concrete	State Highway Agency	5 At/Above Legal Loads	Not Deficient	59.5	2014-02-05	State Highway Agency	1954	6 Satisfactory	6 Satisfactory	5 Fair	1 Meets Standards	Good	Metal Rail Coated	44.505711	-123.108597	Rehabilitation
00563A058 01176	00563A	058	11.76	Calapooia Bottoms, Hwy 58 at MP 11.76	OR 99E (HWY 58)	CALAPOOIA BOTTOMS 3	114	33.5	2	22 Channel Beam	1 Concrete	State Highway Agency	5 At/Above Legal Loads	Not Deficient	52.3	2014-02-27	State Highway Agency	1955	6 Satisfactory	6 Satisfactory	5 Fair	1 Meets Standards	Good	Metal Rail Coated	44.499042	-123.108586	Rehabilitation
00566A058 01396	00566A	058	13.96	Calapooia Bottoms, Hwy 58 at MP 13.96	OR 99E (HWY 58)	CALAPOOIA BOTTOMS 7	275	34.4	2	02 Stringer/Girder	1 Concrete	State Highway Agency	5 At/Above Legal Loads	Not Deficient	77.6	2014-02-27	State Highway Agency	1955	6 Satisfactory	6 Satisfactory	6 Satisfactory	0 Substandard	Fair	Conc Bridge Railing	44.467192	-123.1104	Rehabilitation
00583E058 02909	00583E	058	29.09	Willamette R, Hwy 58 (Harrisburg, John B. Yeon)	OR 99E (HWY 58)	WILLAMETTE RIVER	2202	31.5	2	10 Truss-Thru	3 Steel	State Highway Agency	5 At/Above Legal Loads	Functionally Obsolete	47.1	2013-12-16	State Highway Agency	1925	6 Satisfactory	6 Satisfactory	6 Satisfactory	0 Substandard	Good	Metal Rail Uncoated	44.267103	-123.175222	Replacement
01162A016 01189	01162A	016	11.89	Mountain States Power Co Canal, Hwy 16	US 20 (HWY 16)	MT STATES PWR CO CANAL	93	35.3	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Functionally Obsolete	49.5	2014-02-12	State Highway Agency	1950	6 Satisfactory	6 Satisfactory	5 Fair	0 Substandard	Fair	Metal Rail Coated	44.558597	-122.911694	Replacement
01428A212 01182	01428A	212	11.82	Calapooia River, Hwy 212 (McKircher)	OR 228 (HWY 212)	CALAPOOIA RIVER	174	30.8	2	05 Multiple Box Beam	6 P/S Conc Continuous	State Highway Agency	5 At/Above Legal Loads	Functionally Obsolete	75.9	2014-02-19	State Highway Agency	1958	6 Satisfactory	7 Good	7 Good	1 Meets Standards	Fair	Conc Bridge Railing	44.361556	-122.880906	Rehabilitation
01509A072900004	01509A	C0000	2.86	South Santiam River. McDowell Creek Rd	MCDOWELL CR RD	SOUTH SANTIAM RIVER	359	26.9	2	02 Stringer/Girder	3 Steel	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	72.3	2013-08-14	County Hwy Agency	1959	5 Fair	6 Satisfactory	6 Satisfactory		Fair	Conc Bridge Railing	44.461039	-122.769036	Rehabilitation
01577A016 04612	01577A	016	46.12	South Santiam River, Hwy 16 (Garland)	US 20 (HWY 16)	S. SANTIAM RIVER	239.5	35.3	2	02 Stringer/Girder	6 P/S Conc Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	80.5	2014-02-18	State Highway Agency	1983	5 Fair	7 Good	7 Good	1 Meets Standards	Fair	Conc Bridge Railing	44.398733	-122.394786	Not Eligible
01725A212 01294	01725A	212	12.94	Calapooia R, Hwy 212 at MP 12.94 (Crawfordsville)	OR 228 (HWY 212)	CALAPOOIA RIVER	210	34.8	2	02 Stringer/Girder	3 Steel	State Highway Agency	5 At/Above Legal Loads	Not Deficient	66.7	2014-02-19	State Highway Agency	1963	7 Good	6 Satisfactory	7 Good	1 Meets Standards	Fair	Conc Bridge Railing	44.357553	-122.860394	Rehabilitation
01771A211 00145	01771A	211	1.37	South Santiam River, Hwy 211	OR 226 (HWY 211)	S. SANTIAM RIVER	1080	46.3	2	05 Multiple Box Beam	6 P/S Conc Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	95.6	2012-08-02	State Highway Agency	1973	6 Satisfactory	6 Satisfactory	7 Good	1 Meets Standards	Good	Metal Rail Uncoated	44.630386	-122.923581	Not Eligible
02287A072100480	02287A	C0000	1.29	South Santiam River, County Rd 721	COUNTY RD 721	SOUTH SANTIAM RIVER	349	33	2	02 Stringer/Girder	4 Steel Continuous	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	77.6	2013-07-23	County Hwy Agency	1961	5 Fair	6 Satisfactory	6 Satisfactory		Fair	Metal Rail Coated	44.497489	-122.821033	Rehabilitation
04242A016 02170	04242A	016	21.69	Noble Slough, Hwy 16	US 20 (HWY 16)	NOBLE SLOUGH	60	80	4	01 Slab	5 Prestressed Concrete	State Highway Agency	5 At/Above Legal Loads	Not Deficient	83.5	2014-02-13	State Highway Agency	1983	7 Good	7 Good	7 Good	0 Substandard	Fair	Metal Rail Coated	44.455189	-122.798475	Not Eligible
04267A210 00245	04267A	210	2.45	Owl Creek, Hwy 210	OR 34 (HWY 210)	OWL CREEK	120	73.8	4	01 Slab	5 Prestressed Concrete	State Highway Agency	5 At/Above Legal Loads	Not Deficient	90.3	2012-10-08	State Highway Agency	1965	6 Satisfactory	6 Satisfactory	6 Satisfactory	1 Meets Standards	Fair	Conc Bridge Railing	44.564075	-123.209636	Not Eligible
04278A211 00631	04278A	211	6.31	Crabtree Creek, Hwy 211 (Tinker Jim)	OR 226 (HWY 211)	CRABTREE CREEK	156	30.8	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Functionally Obsolete	72.7	2012-08-02	State Highway Agency	1954	6 Satisfactory	6 Satisfactory	6 Satisfactory	1 Meets Standards	Good	Conc Bridge Railing	44.654508	-122.851436	Rehabilitation
04288A212 00134	04288A	212	1.34	Spoon Creek, Hwy 212	OR 228 (HWY 212)	SPOON CREEK	70	48	2	01 Slab	5 Prestressed Concrete	State Highway Agency	5 At/Above Legal Loads	Not Deficient	92.8	2014-02-11	State Highway Agency	1994	7 Good	7 Good	7 Good	1 Meets Standards	Good	Conc Bridge Railing	44.388947	-123.082611	Not Eligible
04289A212 00264	04289A	212	2.64	Courtney Creek, Hwy 212	OR 228 (HWY 212)	COURTNEY CREEK	68	40	2	01 Slab	5 Prestressed Concrete	State Highway Agency	5 At/Above Legal Loads	Not Deficient	72.3	2014-02-11	State Highway Agency	1983	7 Good	7 Good	7 Good	1 Meets Standards	Fair	Metal Rail Coated	44.388864	-123.056486	Rehabilitation
08218A001 23567	08218A	001	235.67	Hwy 1 NB over Murder Creek Rd	I-5 (HWY 1) NB	MURDER CREEK ROAD	131	44.8	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	92.7	2013-02-04	State Highway Agency	1958	5 Fair	6 Satisfactory	6 Satisfactory	1 Meets Standards	Good	Conc Bridge Railing	44.665414	-123.058769	Not Eligible
08218B001 23567	08218B	001	235.67	Hwy 1 SB over Murder Creek Rd	I-5 (HWY 1) SB	MURDER CREEK ROAD	131	44.8	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	92.7	2013-02-04	State Highway Agency	1958	5 Fair	6 Satisfactory	6 Satisfactory	1 Meets Standards	Fair	Conc Bridge Railing	44.665458	-123.059161	Not Eligible
08229B210 01014	08229B	210	10.03	Hwy 210 over Hwy 1	OR 34 (HWY 210)	I-5 (HWY 1)	312	87.2	4	05 Multiple Box Beam	6 P/S Conc Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	87.4	2012-10-24	State Highway Agency	1994	6 Satisfactory	7 Good	7 Good	1 Meets Standards	Good	Metal Rail Coated	44.555756	-123.061861	Not Eligible
08232N001 22242	08232N	001	222.42	Butte Creek, Hwy 1 NB	I-5 (HWY 1) NB	BUTTE CREEK	126	42.3	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	95.5	2013-01-02	State Highway Agency	1958	5 Fair	6 Satisfactory	6 Satisfactory	1 Meets Standards	Good	Conc Bridge Railing	44.473492	-123.061369	Not Eligible
08232S001 22242	08232S	001	222.42	Butte Creek, Hwy 1 SB	I-5 (HWY 1) SB	BUTTE CREEK	126	42.3	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	95.5	2013-01-02	State Highway Agency	1958	5 Fair	6 Satisfactory	6 Satisfactory	1 Meets Standards	Good	Conc Bridge Railing	44.473708	-123.061758	Not Eligible
08234N001 22037	08234N	001	220.37	Sodom Ditch Oflow, Hwy 1 NB	I-5 (HWY 1) NB	SODOM DITCH OFLOW	117	46.4	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	93.8	2012-12-10	State Highway Agency	1958	5 Fair	6 Satisfactory	6 Satisfactory	1 Meets Standards	Fair	Conc Bridge Railing	44.443878	-123.061267	Not Eligible
08234S001 22037	08234S	001	220.37	Sodom Ditch Oflow, Hwy 1 SB	I-5 (HWY 1) SB	SODOM DITCH OFLOW	117	46.4	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	93.8	2012-12-10	State Highway Agency	1958	5 Fair	6 Satisfactory	6 Satisfactory	1 Meets Standards	Fair	Conc Bridge Railing	44.444028	-123.061642	Not Eligible
08235N001 22004	08235N	001	220.04	Calapooia Oflow, Hwy 1 NB at MP 220.04	I-5 (HWY 1) NB	CALAPOOIA OFLOW	189	44.7	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	87.3	2012-12-10	State Highway Agency	1958	5 Fair	6 Satisfactory	6 Satisfactory	1 Meets Standards	Fair	Conc Bridge Railing	44.439039	-123.06125	Not Eligible
08235S001 22004	08235S	001	220.04	Calapooia Oflow, Hwy 1 SB at MP 220.04	I-5 (HWY 1) SB	CALAPOOIA OFLOW	189	44.7	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	87.3	2012-12-10	State Highway Agency	1958	5 Fair	6 Satisfactory	6 Satisfactory	1 Meets Standards	Fair	Conc Bridge Railing	44.439558	-123.061636	Not Eligible
08236N001 21879	08236N	001	218.79	Calapooia River, Hwy 1 NB	I-5 (HWY 1) NB	CALAPOOIA RIVER	153	44.7	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	92.4	2012-12-10	State Highway Agency	1958	5 Fair	6 Satisfactory	6 Satisfactory	1 Meets Standards	Good	Conc Bridge Railing	44.420869	-123.061189	Not Eligible
08236S001 21879	08236S	001	218.79	Calapooia River, Hwy 1 SB	I-5 (HWY 1) SB	CALAPOOIA RIVER	153	44.7	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	92.4	2012-12-10	State Highway Agency	1958	5 Fair	6 Satisfactory	6 Satisfactory	1 Meets Standards	Good	Conc Bridge Railing	44.420864	-123.061572	Not Eligible
08238N001 21785	08238N	001	217.85	Calapooia Oflow, Hwy 1 NB at MP 217.85	I-5 (HWY 1) NB	CALAPOOIA OFLOW	75	42.3	2	01 Slab	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	95.1	2012-12-05	State Highway Agency	1958	6 Satisfactory	6 Satisfactory	6 Satisfactory	0 Substandard	Good	Conc Bridge Railing	44.40745	-123.061147	Not Eligible
08238S001 21785	08238S	001	217.85	Calapooia Oflow, Hwy 1 SB at MP 217.85	I-5 (HWY 1) SB	CALAPOOIA OFLOW	75	42.3	2	01 Slab	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	95.1	2012-12-05	State Highway Agency	1958	6 Satisfactory	6 Satisfactory	6 Satisfactory	0 Substandard	Good	Conc Bridge Railing	44.407447	-123.061536	Not Eligible
08239N001 21739	08239N	001	217.39	Sodom Ditch Oflow, Hwy 1 NB	I-5 (HWY 1) NB	SODOM DITCH OFLOW	126	42.3	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	87.2	2012-12-05	State Highway Agency	1959	6 Satisfactory	6 Satisfactory	6 Satisfactory	0 Substandard	Good	Conc Bridge Railing	44.400669	-123.061125	Not Eligible
08239S001 21739	08239S	001	217.39	Sodom Ditch Oflow, Hwy 1 SB	I-5 (HWY 1) SB	SODOM DITCH OFLOW	126	42.3	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	87.2	2012-12-05	State Highway Agency	1959	6 Satisfactory	6 Satisfactory	6 Satisfactory	0 Substandard	Good	Conc Bridge Railing	44.400925	-123.061508	Not Eligible
08240N001 21720	08240N	001	217.2	Courtney Creek Oflow, Hwy 1 NB	I-5 (HWY 1) NB	COURTNEY CREEK OFLOW	84	42.3	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	93.2	2012-12-05	State Highway Agency	1959	6 Satisfactory	7 Good	6 Satisfactory	0 Substandard	Good	Conc Bridge Railing	44.397992	-123.061114	Not Eligible
08240S001 21720	08240S	001	217.2	Courtney Creek Oflow, Hwy 1 SB	I-5 (HWY 1) SB	COURTNEY CREEK OFLOW	84	42.3	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	93.2	2012-12-05	State Highway Agency	1959	6 Satisfactory	7 Good	6 Satisfactory	0 Substandard	Good	Conc Bridge Railing	44.397989	-123.0615	Not Eligible
08241N001 21697	08241N	001	216.97	Courtney Creek, Hwy 1 NB	I-5 (HWY 1) NB	COURTNEY CREEK	126	42.3	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	89.1	2012-12-05	State Highway Agency	1959	5 Fair	6 Satisfactory	6 Satisfactory	0 Substandard	Good	Conc Bridge Railing	44.394583	-123.061106	Not Eligible
08241S001 21697	08241S	001	216.97	Courtney Creek, Hwy 1 SB	I-5 (HWY 1) SB	COURTNEY CREEK	126	42.3	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	89.1	2012-12-05	State Highway Agency	1959	5 Fair	6 Satisfactory	6 Satisfactory	0 Substandard	Good	Conc Bridge Railing	44.394675	-123.0615	Not Eligible
08245N001 21092	08245N	001	210.92	Little Muddy Creek, Hwy 1 NB	I-5 (HWY 1) NB	LITTLE MUDDY CREEK	75	42.3	2	01 Slab	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	97.1	2012-12-03	State Highway Agency	1958	7 Good	7 Good	6 Satisfactory	1 Meets Standards	Fair	Conc Bridge Railing	44.30715	-123.060797	Not Eligible
08245S001 21092	08245S	001	210.92	Little Muddy Creek, Hwy 1 SB	I-5 (HWY 1) SB	LITTLE MUDDY CREEK	75	42.3	2	01 Slab	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	97.1	2012-12-03	State Highway Agency	1958	6 Satisfactory	6 Satisfactory	6 Satisfactory	1 Meets Standards	Fair	Conc Bridge Railing	44.307011	-123.061208	Not Eligible
08246N001 21039	08246N	001	210.39	Muddy Creek, Hwy 1 NB	I-5 (HWY 1) NB	MUDDY CREEK	141	42.3	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	93.2	2012-12-03	State Highway Agency	1959	6 Satisfactory	7 Good	6 Satisfactory	1 Meets Standards	Good	Conc Bridge Railing	44.299317	-123.060775	Not Eligible
08246S001 21039	08246S	001	210.39	Muddy Creek, Hwy 1 SB	I-5 (HWY 1) SB	MUDDY CREEK	141	42.3	2	02 Stringer/Girder	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	93.2	2012-12-03	State Highway Agency	1959	6 Satisfactory	7 Good	6 Satisfactory	1 Meets Standards	Good	Conc Bridge Railing	44.299422	-123.061189	Not Eligible
08251N001 20534	08251N	001	205.34	Small Creek, Hwy 1 NB at MP 205.34	I-5 (HWY 001) NB	SMALL CREEK	75	42.3	2	01 Slab	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	95.6	2013-03-11	State Highway Agency	1958	7 Good	6 Satisfactory	6 Satisfactory	1 Meets Standards	Good	Conc Bridge Railing	44.226178	-123.060553	Not Eligible
08251S001 20534	08251S	001	205.34	Small Creek, Hwy 1 SB at MP 205.34	I-5 (HWY 001) SB	SMALL CREEK	75	42.3	2	01 Slab	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	95.6	2013-03-11	State Highway Agency	1958	7 Good	6 Satisfactory	6 Satisfactory	1 Meets Standards	Good	Conc Bridge Railing	44.226167	-123.060936	Not Eligible
11920A073000394	11920A	C0000	3.94	Noble Creek, Fairview Rd	FAIRVIEW RD	NOBLE CR	60	32	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	85.9	2013-07-26	County Hwy Agency	1980	7 Good	7 Good	5 Fair		Fair	Metal Rail Coated	44.459697	-122.7968	Not Eligible
11941A073800034	11941A	C0000	0.34	Oak Creek, Middle Ridge Rd	MIDDLE RIDGE RD.	OAK CR	40	28.1	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	80.1	2013-07-23	County Hwy Agency	1979	7 Good	7 Good	5 Fair		Good	Metal Rail Coated	44.480017	-122.876178	Not Eligible
11950A072900068	11950A	C0000	0.68	Willow Creek, McDowell Creek Dr	MCDOWELL CR DRIVE	WILLOW CREEK EB	67	28.7	2	02 Stringer/Girder	1 Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	57.9	2013-07-26	County Hwy Agency	1958	7 Good	7 Good	4 Poor		Fair	Conc Bridge Railing	44.476269	-122.797553	Rehabilitation
11951A072900331	11951A	C0000	3.31	McDowell Creek, McDowell Creek Dr at MP 3.31	MCDOWELL CR DRIVE	MCDOWELL CREEK	89	28.8	2	02 Stringer/Girder	2 Concrete Continuous	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	78.2	2013-07-25	County Hwy Agency	1955	7 Good	6 Satisfactory	7 Good		Fair	Conc Bridge Railing	44.462403	-122.761064	Rehabilitation
11955A072800172	11955A	C0000	1.72	McDowell Creek, Berlin Rd	BERLIN ROAD	MCDOWELL CREEK	85	28.8	2	02 Stringer/Girder	1 Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	79.1	2013-07-25	County Hwy Agency	1958	7 Good	7 Good	6 Satisfactory		Good	Conc Bridge Railing	44.470861	-122.743992	Rehabilitation
11964A020B00490	11964A	C0000	4.9	Hamilton Creek, Berlin Rd at MP 4.90	BERLIN ROAD	HAMILTON CREEK	128	30.7	2	02 Stringer/Girder	1 Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	51.2	2013-07-26	County Hwy Agency	1960	7 Good	7 Good	4 Poor		Good	Conc Bridge Railing	44.511119	-122.813342	Rehabilitation
12205B210 00551	12205B	210	5.51	Calapooia River, Hwy 210	OR 34 (HWY 210)	CALAPOOIA RIVER	345	88.2	4	01 Slab	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	90.7	2012-10-08	State Highway Agency	1971	7 Good	6 Satisfactory	6 Satisfactory	1 Meets Standards	Fair	Conc Bridge Railing	44.565339	-123.148969	Not Eligible
12208B210 00630	12208B	210	6.3	Lake Creek, Hwy 210	OR 34 (HWY 210)	LAKE CREEK	170	88.3	4	01 Slab	2 Concrete Continuous	State Highway Agency	5 At/Above Legal Loads	Not Deficient	93.4	2012-10-08	State Highway Agency	1971	6 Satisfactory	6 Satisfactory	6 Satisfactory	1 Meets Standards	Fair	Conc Bridge Railing	44.561044	-123.134889	Not Eligible
12222A001101143	12222A	C0000	11.43	Butte Creek, Seven Mile Ln	SEVEN MILE LN	BUTTE CREEK	70	30.7	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	85.2	2013-07-19	County Hwy Agency	1965	7 Good	7 Good	6 Satisfactory		Good	Conc Bridge Railing	44.463525	-123.039192	Not Eligible
12244A012200414	12244A	C0000	4.14	Owl Creek, Tangent Dr	TANGENT DR	OWL CREEK	103	31.5	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	53.9	2013-07-16	County Hwy Agency	1980	7 Good	7 Good	3 Serious		Good	Metal Rail Coated	44.532764	-123.195247	Rehabilitation
12247A001200043	12247A	C0000	0.43	Shedd Slough, Bell Plain Dr	BELL PLAIN DRIVE	SHEDD SLOUGH	120	33.9	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	96.9	2013-07-17	County Hwy Agency	1966	7 Good	7 Good	7 Good		Good	Conc Bridge Railing	44.490394	-123.11895	Not Eligible
12257A011800131	12257A	C0000	1.31	Owl Creek, White Oak Rd	WHITE OAK RD	OWL CREEK	120	32.2	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	68.3	2013-07-21	County Hwy Agency	1978	7 Good	7 Good	4 Poor		Good	Metal Rail Coated	44.545228	-123.203206	Rehabilitation
12272A013400129	12272A	C0000	1.29	Muddy Creek, Oakville Rd	OAKVILLE RD	MUDDY CREEK	252	31.8	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	86	2013-07-21	County Hwy Agency	1975	7 Good	7 Good	5 Fair		Fair	Metal Rail Coated	44.503269	-123.189828	Not Eligible
12276A011100020	12276A	C0000	0.2	Creek, Allen Ln	ALLEN LANE	CREEK	41	23.9	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	78.5	2013-07-28	County Hwy Agency	1979	7 Good	7 Good	5 Fair		Fair	Metal Rail Coated	44.573839	-123.12	Rehabilitation
12285A001300851	12285A	C0000	8.51	Butte Creek, Boston Mill Rd	BOSTON MILL RD	BUTTE CREEK	120	32.2	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	96.8	2013-07-19	County Hwy Agency	1998	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.472089	-123.059403	Not Eligible
12287A001300696	12287A	C0000	6.91	Calapooia River, Boston Mill Rd	BOSTON MILL RD	CALAPOOIA RIVER	126	30.8	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	64.2	2013-07-17	County Hwy Agency	1962	7 Good	7 Good	4 Poor		Good	Conc Bridge Railing	44.460247	-123.0765	Rehabilitation
12289A001300673	12289A	C0000	6.73	Mill Race, Boston Mill Rd	BOSTON MILL RD	MILL RACE	70	28	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	82.8	2013-07-17	County Hwy Agency	1965	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.459664	-123.081	Not Eligible
12295A020400119	12295A	C0000	1.19	Muddy Creek, Brattain Rd	BRATTAIN ROAD	MUDDY CREEK	180	28	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	69.9	2013-07-21	County Hwy Agency	1985	7 Good	7 Good	4 Poor		Fair	Metal Rail Coated	44.473811	-123.184561	Rehabilitation
12322A021900120	12322A	C0000	1.2	Muddy Creek, Crook Rd	CROOK RD	MUDDY CREEK	144	32.1	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	78.7	2013-05-27	County Hwy Agency	1981	7 Good	7 Good	5 Fair		Fair	Metal Rail Coated	44.378019	-123.133639	Rehabilitation
12390A023600038	12390A	C0000	0.38	Curtis Slough, Wyatt Dr at MP 0.38	WYATT DRIVE	CURTIS SLOUGH	180	28	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	83.4	2013-05-21	County Hwy Agency	1986	7 Good	7 Good	6 Satisfactory		Fair	Metal Rail Coated	44.218119	-123.135431	Not Eligible
12423A001400168	12423A	C0000	1.68	Muddy Creek, Diamond Hill Dr	DIAMOND HILL DRIVE	MUDDY CREEK	97	35.9	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	88.8	2013-05-22	County Hwy Agency	1977	7 Good	7 Good	7 Good		Fair	Metal Rail Coated	44.2853	-123.126789	Not Eligible
12475A051100326	12475A		3.26	Irrigation Ditch, County Rd 511	COUNTY RD 511	DITCH	16	24	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	NA	96	##############	County Hwy Agency	1966	8 Very Good	8 Very Good	8 Very Good				44.326253	-123.047225	Not Eligible
12524A050900008	12524A	C0000	0.08	Courtney Creek, Stubbs Rd	STUBBS RD.	COURTNEY CREEK	60	28	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	100	2013-07-18	County Hwy Agency	1978	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.371089	-123.005661	Not Eligible
12553A002600308	12553A	C0000	3.08	Sodom Ditch, Linn West Dr	LINN WEST DR	SODOM DITCH	121	32.8	2	05 Multiple Box Beam	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	92.4	2013-05-25	County Hwy Agency	1977	7 Good	7 Good	6 Satisfactory		Good	Conc Bridge Railing	44.425219	-123.048861	Not Eligible
12556A042000114	12556A	C0000	1.14	Calapooia River, Roberts Rd at MP 1.14	ROBERTS ROAD	CALAPOOIA RIVER	72	32	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	85.9	2013-05-25	County Hwy Agency	1997	7 Good	7 Good	5 Fair		Good	Metal Rail Coated	44.446336	-123.076503	Not Eligible
12570A040100198	12570A	C0000	1.98	Lake Creek, Tangent Loop Rd at MP 1.98	TANGENT LOOP RD	LAKE CREEK	60	32	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	69.9	2013-07-17	County Hwy Agency	1981	7 Good	7 Good	4 Poor		Good	Metal Rail Coated	44.523697	-123.094147	Rehabilitation
12575A040200101	12575A	C0000	1.01	Lake Creek, Tangent Loop Rd at MP 1.01	TANGENT LOOP RD	LAKE CREEK	30	31.8	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	69.8	2013-07-17	County Hwy Agency	1971	7 Good	7 Good	4 Poor		Fair	Metal Rail Coated	44.540997	-123.074356	Rehabilitation
12594A033200062	12594A	C0000	0.62	Cox Creek, Eicher Rd	EICHER ROAD	COX CREEK	33	32	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	97	2013-07-29	County Hwy Agency	1984	7 Good	7 Good	6 Satisfactory		Fair	Metal Rail Coated	44.62255	-123.015289	Not Eligible
12634A041200061	12634A	C0000	0.61	Butte Creek, Sand Ridge Rd	SAND RIDGE ROAD	BUTTE CREEK	64	28.8	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	65.8	2013-07-19	County Hwy Agency	1962	7 Good	7 Good	5 Fair		Good	Conc Bridge Railing	44.474114	-122.988497	Rehabilitation
12651A070700162	12651A	C0000	1.62	Oak Creek, Airport Dr at MP 1.62	AIRPORT DR	OAK CREEK	73	36	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	94.4	2013-07-23	County Hwy Agency	1984	7 Good	7 Good	6 Satisfactory		Good	Metal Rail Coated	44.527969	-122.953356	Not Eligible
12723A000800106	12723A	C0000	1.06	Mill Creek, Tennessee Rd	TENNESSEE RD	MILL CREEK	72	32.2	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	85.8	2013-07-29	County Hwy Agency	1981	7 Good	7 Good	5 Fair		Fair	Metal Rail Coated	44.611953	-122.924742	Not Eligible
12724A000800122	12724A	C0000	1.22	Slough, Tennessee Rd at MP 1.22	TENNESSEE RD	SLOUGH	72	32.1	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	85.8	2013-07-29	County Hwy Agency	1982	7 Good	7 Good	5 Fair		Good	Metal Rail Coated	44.614144	-122.924589	Not Eligible
12725A000800225	12725A	C0000	2.25	Mill Creek, Tennessee Rd at MP 2.25	TENNESSEE RD	MILL CREEK	72	32.2	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	0 >39.9% below	Structurally Deficient	40.5	2013-07-29	County Hwy Agency	1981	7 Good	7 Good	4 Poor		Fair	Metal Rail Coated	44.626914	-122.926192	Replacement
12726A000800251	12726A	C0000	2.51	Mill Creek, Tennessee Rd at MP 2.51	TENNESSEE RD	MILL CREEK	72	32.2	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	67.8	2013-07-29	County Hwy Agency	1982	7 Good	7 Good	4 Poor		Fair	Metal Rail Coated	44.627308	-122.9311	Rehabilitation
12778A003400126	12778A	C0000	1.26	Crooks Creek, Dever Conner Rd	DEVER-CONNER ROAD	CROOKS CREEK	30	28.3	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	63.5	2013-08-19	County Hwy Agency	1962	7 Good	7 Good	5 Fair		Poor	Timb Bridge Railing	44.719175	-123.077364	Rehabilitation
12790A651A00028	12790A	C0000	0.28	Mill Creek, N Folsom Rd at MP 0.28	N FOLSOM RD	MILL CREEK	61	24	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	90.7	2013-08-22	County Hwy Agency	1975	7 Good	7 Good	6 Satisfactory		Good	Metal Rail Coated	44.648639	-122.958444	Not Eligible
12797A065300088	12797A	C0000	0.88	Mill Creek, Cyrus Rd	CYRUS RD	MILL CREEK	32	23.9	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	46.3	2013-08-22	County Hwy Agency	1988	7 Good	6 Satisfactory	3 Serious		Good	Metal Rail Coated	44.665911	-122.963028	Replacement
12801A007A00068	12801A	C0000	0.68	Irrigation Ditch, Gilkey Rd at MP 0.68	GILKEY ROAD	DITCH	45	36	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	60.3	2013-08-18	County Hwy Agency	1976	7 Good	7 Good	4 Poor		Poor	Metal Rail Coated	44.648933	-122.916325	Rehabilitation
12804A007A00129	12804A	C0000	1.29	Irrigation Ditch, Gilkey Rd at MP 1.29	GILKEY ROAD	DITCH	24	36	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	96.3	2013-08-18	County Hwy Agency	1978	7 Good	7 Good	6 Satisfactory		Good	Metal Rail Coated	44.656386	-122.916917	Not Eligible
12848A759 00367	12848A	C0000	3.67	Calapooia River, Calapooia River Rd	CALAPOOIA R. ROAD	CALAPOOIA RIVER	273	33.5	2	02 Stringer/Girder	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	90	2013-07-22	County Hwy Agency	1979	7 Good	7 Good	7 Good		Good	Conc Bridge Railing	44.320822	-122.732847	Not Eligible
12868A067100039	12868A	C0000	0.39	Beaver Creek, Kowitz Rd	KOWITZ RD	BEAVER CREEK	46	32	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	93.6	2013-07-30	County Hwy Agency	1983	7 Good	7 Good	7 Good		Fair	Metal Rail Coated	44.582833	-122.797936	Not Eligible
12890A002500332	12890A	C0000	3.32	Crabtree Creek, Richardson Gap Rd	RICHARDSON GAP RD	CRABTREE CREEK	121	35.2	2	02 Stringer/Girder	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	94.9	2013-08-16	County Hwy Agency	1987	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.658153	-122.80435	Not Eligible
12908A064500054	12908A		0.54	Creek, County Rd at MP 0.54	COUNTY RD 645	CREEK	20	24	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	NA	86	##############	County Hwy Agency	1964	8 Very Good	8 Very Good	8 Very Good				44.647008	-122.789181	Not Eligible
12935A062200150	12935A	C0000	1.5	Thomas Creek, Kelly Rd	KELLY RD	THOMAS CREEK	221	32.8	2	02 Stringer/Girder	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	75.6	2013-08-18	County Hwy Agency	1979	7 Good	7 Good	6 Satisfactory		Good	Conc Bridge Railing	44.690594	-122.940417	Rehabilitation
12947A646 00089	12947A	C0000	0.89	Freeman Creek, Freeman Rd	FREEMAN ROAD	FREEMAN CR	48	24	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	96	2013-08-16	County Hwy Agency	1978	7 Good	7 Good	6 Satisfactory		Fair	Metal Rail Coated	44.649169	-122.836064	Not Eligible
12958A082900001	12958A	C0000	0.01	Thomas Creek, Jordan Rd	JORDAN RD	THOMAS CREEK	164	36.3	2	05 Multiple Box Beam	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	96.9	2013-08-12	County Hwy Agency	1985	7 Good	7 Good	7 Good		Fair	Metal Rail Coated	44.726433	-122.698814	Not Eligible
14008A000500448	14008A	C0000	4.48	Bear Creek, Shelburn Dr	SHELBURN DRIVE	BEAR CREEK	60	32.1	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	96.9	2013-08-17	County Hwy Agency	1978	7 Good	7 Good	7 Good		Fair	Metal Rail Coated	44.753008	-122.850289	Not Eligible
2000A 068200013	2000A	C0000	0.13	Oflow, Old Bridge Rd a MP 0.13	OLD BRIDGE RD	O'FLOW	147	27	2	02 Stringer/Girder	7 Wood or Timber	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	56.7	2013-07-29	County Hwy Agency	1934	7 Good	6 Satisfactory	4 Poor		Poor	Metal Rail Coated	44.631803	-122.929639	Rehabilitation
2000B 068200023	2000B	C0000	0.23	Oflow, Old Bridge Rd at MP 0.23	OLD BRIDGE RD	O'FLOW	43	27	2	02 Stringer/Girder	7 Wood or Timber	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	87.7	2013-08-22	County Hwy Agency	1934	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.632772	-122.928286	Not Eligible
22C02 000100118	22C02	C0000	1.18	Calapooia River Overflow, Riverside Dr	RIVERSIDE DR	CALAPOOIA R OVERFLOW	201	42	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	95.2	2013-05-28	County Hwy Agency	1967	7 Good	7 Good	7 Good		Fair	Conc Bridge Railing	44.617881	-123.1311	Not Eligible
22C06 001700409	22C06	C0000	4.09	Tributary of Brush Creek, Brush Creek Rd	BRUSH CR RD	TRIB OF BRUSH CREEK	30	35.9	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Structurally Deficient	65.4	2013-07-18	County Hwy Agency	1969	7 Good	7 Good	4 Poor		Good	Metal Rail Coated	44.3079	-122.817989	Rehabilitation
22C07 001700425	22C07	C0000	4.25	Brush Creek, Brush Creek Rd	BRUSH CR RD	BRUSH CREEK	31	40	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	93.6	2013-07-18	County Hwy Agency	1969	7 Good	7 Good	6 Satisfactory		Good	Metal Rail Coated	44.30585	-122.817222	Not Eligible
22C09 001101129	22C09	C0000	11.29	Swale & Overflow, Seven Mile Ln	SEVEN MILE LN	SWALE/OVERFLOW	24	30.2	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	2 20.0-29.9%below	Structurally Deficient	39.3	2013-07-19	County Hwy Agency	1963	7 Good	7 Good	3 Serious		Poor	Metal Rail Coated	44.465881	-123.039236	Replacement
72229A072200297	72229A	C0000	2.97	One Horse Slough, Bellinger Scale Rd	BELLINGER SCALE RD	ONE HORSE SLOUGH	31	38.7	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	96.4	2013-07-30	County Hwy Agency	1980	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.550336	-122.791478	Not Eligible
84502A845A00002	84502A	C0000	0.02	Beaver Creek, Kaufman Rd	KAUFMAN RD	BEAVER CR	36	24	2	01 Slab	5 Prestressed Concrete	County Hwy Agency	5 At/Above Legal Loads	Not Deficient	85.4	2013-07-30	County Hwy Agency	1976	7 Good	7 Good	7 Good		Good	Metal Rail Coated	44.568667	-122.732922	Not Eligible

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Section G:

Tech Memo 6: Forecasting Assumptions & Methodology

The contents of Volume 2 represent an iterative process in the development of the TSP. Refinements to various plan elements occurred throughout the process as new information was obtained. In all cases, the contents of Volume 1 supersede those in Volume 2.

MEMORANDUM

DATE: June 10, 2016

TO: Linn County TSP Project Management Team

FROM: Carl D. Springer, DKS Associates
Julie Sosnovske, DKS Associates

SUBJECT: **Linn County Transportation System Plan |** P14180-010
Task 5.1 Technical Memorandum #6 – Forecasting Assumptions & Methodology

Traffic forecasting is an important step in the transportation planning process because it provides estimates of future travel demand. The horizon year for Linn County's transportation system plan (TSP) is 2040. This memorandum describes the forecasting assumptions and methodologies that were used to estimate transportation growth and provide traffic volumes for study intersection and roadways in 2040.

Methodology Overview

The forecasting methodology varies based on the forecasting tools available, as well as the location, characteristic, and jurisdiction of the facility. The following provides a summary of the forecasting tools that were used for the Linn County TSP:

- **For State highways and County facilities in the Corvallis-Albany-Lebanon-Millersburg (CALM) area:** Model growth rates from the CALM regional travel demand model were utilized for areas within the model boundaries.
- **For State highways outside of the CALM area:** Growth Rates derived from the ODOT Future Volume Tables were utilized.
- **For rural County facilities:** A half percent annual growth rate was utilized based on an assessment of ODOT Future Volume Tables and forecasted County population estimates.

Due to significant differences in summer peak volumes and average weekday volumes along many roadways in Linn County, the forecast included projections for both scenarios for the 2040 horizon year. Average weekday volumes are based on the seasonal adjustment factors developed for the existing year volumes, applied to the future forecasted summer peak volumes. The following sections detail the above forecasting methodologies and describe their applicability.

CALM Travel Demand Model

The CALM regional travel demand model[1] was utilized as the primary tool to estimate future travel demand in the Corvallis, Albany, Lebanon and Millersburg areas. The model includes all State highways in the CALM area (I-5, OR 34, US 20, OR 226, OR 99E), and major County roadways, including Peoria Road, Tangent Drive, Riverside Drive, Seven Mile Lane, Rock Hill Drive, Berlin Road, Spicer Drive, Kamph Drive, Knox Butte Road, etc. (see Figure 1). Land use data within the model area is divided into transportation analysis zones (TAZs), which represent the origins and destinations for motor vehicle trips throughout the region. Estimates of trips generated from each TAZ are based on associated land use data. In addition, regional trip growth on facilities connecting to the CALM area is accounted for by extrapolating historic growth trends. The 2010 base and 2040 future scenarios of the CALM model were used for this study.

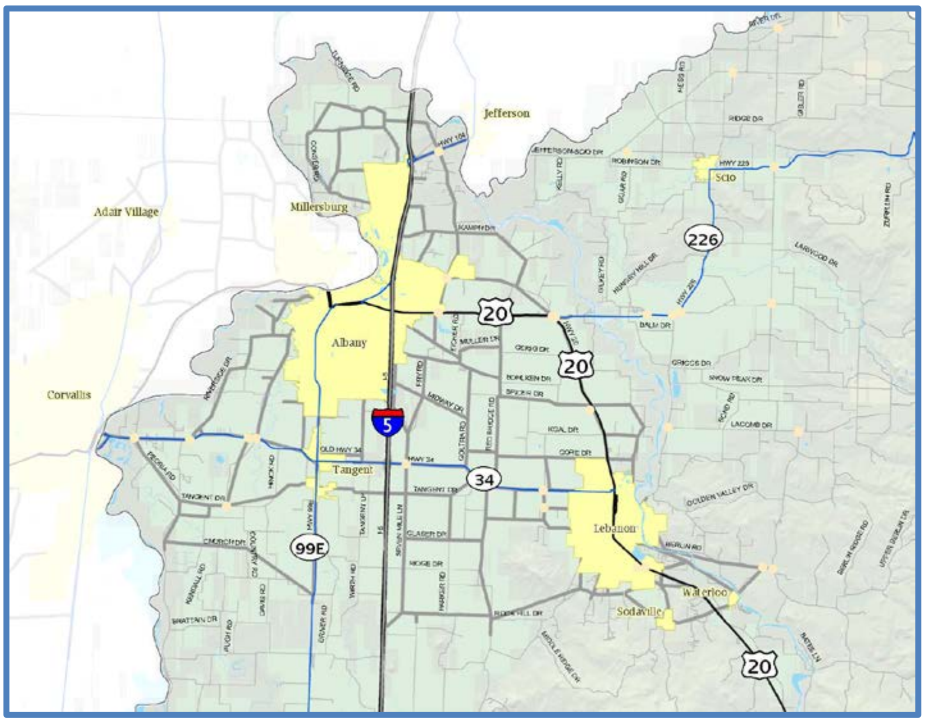

Figure 1: CALM Regional Travel Demand Model Area

[1] The CALM regional travel demand model is managed by the Oregon Department of Transportation (ODOT) Transportation Planning and Analysis Unit (TPAU).

Application of Regional Demand Model

As shown in Figure 1, the CALM regional travel demand model has a regional scale and the roadway network includes the primary arterial and collector roadways in the model area. Many local roadways are commonly not included in regional models because they are not significant to regional travel patterns. As a result, regional models like the CALM model have limited accuracy in forecasting circulation and routing on local streets and should be used carefully. Regional models also do not typically have sufficient detail to directly forecast intersection turn movements, even on roadways included in the model. Engineering judgment and manual methods (such as evaluating screen lines) are often needed to "post-process" link-based model results to estimate turn movement volumes and to account for circulation and routing at the local level.

Post-Processing

While the travel demand models were calibrated to local conditions and volumes, raw volumes from the travel demand model were not used for capacity analysis. Rather, motor vehicle turn movement volume forecasts were developed using post-processing methods consistent with the ODOT Procedures Manual[2]. This approach is derived from methodologies outlined in the National Cooperative Highway Research Program (NCHRP) Report 255, *Highway Traffic Data for Urbanized Area Project Planning and Design*.

The post-processing methodology involves estimating model growth using the difference method (i.e., volume differences between base and future models), scaling the growth by the number of forecast years (i.e., forecast years divided by difference in model years), and adding these volumes to existing traffic counts[3]. Traffic growth on links in the travel demand models were applied to individual turn movements using a Fratar method to account for growth on both inbound and outbound links. Engineering judgment is used as part of the post-processing methodology. The result of this process is future year forecasts derived from the CALM regional travel demand model that are calibrated to observed data.

ODOT Future Volume Tables

For urban State highways or County facilities outside of the CALM model boundaries, future traffic growth was estimated based on ODOT's 2034 future volume tables. Average daily traffic (ADT) volumes are provided for various mile points along State highways for the base year (2012, 2013, or 2014 depending on the location) and future year (2034). These volumes were utilized to determine an expected growth trend, suggesting an annual growth rate to be applied to applicable roadways and intersections in Linn County. The annual growth rate was applied to the seasonally factored base year volumes to develop traffic volumes for 2040.

[2] *Analysis Procedures Manual (APM)*, Oregon Department of Transportation (ODOT) Transportation Planning Analysis Unit (TPAU), Last Updated May 2015, Chapter 6.
[3] The traffic counts for the Linn County TSP study intersections were collected in 2015 and adjusted to average weekday and 30th highest hour conditions, as documented in *Technical Memorandum #5 (Existing Conditions)*.

For State highways outside of the CALM area, annual growth rates derived from the ODOT Future Volume Tables were utilized. For each state highway, an average annual linear growth rate was developed based on count locations outside Urban Growth Boundaries with sufficient statistical confidence values. Table 1 lists the locations used to develop rates for each highway, and the resulting growth rate.

Table 1: Annual Growth Rate Calculations for ODOT Facilities Outside CALM Model Coverage

Applied Locations	Highway Number	Milepoint	Count Location(s)**	Average Annual Growth Rate*
OR 226, east of US 20	211	4.79	0.10 mile north of Fish Hatchery Drive	0.30%
	211	11.99	0.02 mile west of Richardson Gap Road	
	211	16.49	0.02 mile east of Camp Morrison Drive	
OR 22	162	65.48	On Minto Creek Bridge	1.00%
	162	69.44	0.02 mile west of Downing Creek Falls Road	
	162	81.51	0.40 mile northwest of Santiam Highway (US20)	
US 20, south of Sodaville-Waterloo Dr.	16	35.08	2.10 miles east of Quartzville Drive	0.78%
	16	51.47	Upper Soda Automatic Traffic Recorder, Sta. 22-017, 0.91 mile west of Soda Fork Road	
	16	71.72	0.20 mile east of Clear Lake-Belknap Springs Highway (OR126)	
	16	74.5	0.40 mile west of North Santiam Highway (OR22)	
	16	75.05	0.15 mile east of North Santiam Highway (OR22)	1.90%
OR 126	215	0.1	0.10 mile south of Santiam Highway (US20)	0.29%
OR 99E, south of Bell Plain Dr.	58	14.73	0.02 mile north of "F" Street	0.91%***
	58	19.29	North city limits of Halsey	
	58	20.31	South city limits of Halsey	0.22%***
	58	21.64	Halsey Automatic Traffic Recorder, Sta. 22-012, 2.28 miles south of Halsey-Sweet Home Highway No. 212 (OR228)	
OR 228	212	2.3	0.10 mile west of Pacific Highway (I-5)	0.10%
OR 126	215	0.1	0.10 mile south of Santiam Highway (US20)	0.29%

* Annual linear growth rates derived from ODOT 2034 Future Volume Table.

** Only statistically significant locations with R-squared values above 0.50 outside Urban Growth Boundaries were utilized. While ODOT's APM recommends using only data with an R-squared value of 0.75, very few locations had data with an R-squared value that high.

*** No count locations with R-Squared value over 0.03 are available for this route. Due to OR 99E's unique role as an Interstate alternative connection between Albany, Tangent, Halsey, Harrisburg, Junction City, and Eugene, no state highways were determined to have reasonably similar growth profiles to use as a proxy, so the Future Volume Table values were used anyway.

County Facility Growth Estimates

For rural County facilities (i.e. outside of the UGB), a half percent annual growth rate was utilized. This rate was developed after an evaluation of ODOT volume forecasts, a review of forecasted population estimates from Linn County's 1999 Coordinated 2020 Population Forecast, and the Oregon Office of Economic Analysis Forecast (2010 – 2050)[4].

The Oregon Office of Economic Analysis produces a county population forecast from 2010 to 2050. For the time period of 2015 to 2040, this forecast shows 1.17% annual linear growth for the county as a whole. Cities and unincorporated areas are not differentiated in this forecast. To determine an approximately relationship between cities and unincorporated areas, Linn County's 1999 Coordinated 2020 Population Forecast was reviewed. It was used as part of the County's current comprehensive plan and describes both overall and unincorporated population growth. For the county as a whole, population growth for the period of 2000-2020 (the only years available) was forecast as 1.23% annual linear growth. For the unincorporated county population, the annual linear growth was forecast as 0.65%, indicating a substantially lower growth rate in the unincorporated area (approximately half). In addition, population growth rates are not a preferred approach to forecasting traffic volume growth, as the population growth rate includes non-drivers who cannot or should not drive, and does not reflect the spatial distribution of population growth. They are used only as a last resort, to inform the forecast where no other data is available.

ODOT volume forecasts were considered since they typically serve similar city-to-city trips as rural county roadways. ODOT's forecasts indicate that all highways within Linn County will experience growth rates no higher than 0.5% annually, with the exceptions of OR 22, OR 20 and portions of OR 99E. OR 22 and OR 20 are significant recreational routes and are not representative of county facilities, as they provide primary connections from I-5 and the Willamette Valley to Bend. Therefore, these routes were excluded from consideration. OR 99E could potentially be more representative of rural county roadways, however, the R-square value for this route is extremely low, indicating an unreliable forecast.

Considering the sources above, a conservative annual growth rate of a half percent per year was established for county facilities where no CALM model information is available.

[4] Forecasts of Oregon's County Populations and Components of Change, 2010 – 2050, Office of Economic Analysis, Department of Administrative Services, State of Oregon

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Section H:

Tech Memo 7: Future Transportation Conditions and Needs

The contents of Volume 2 represent an iterative process in the development of the TSP. Refinements to various plan elements occurred throughout the process as new information was obtained. In all cases, the contents of Volume 1 supersede those in Volume 2.

MEMORANDUM #7

DATE: September 26, 2016

TO: Linn County TSP Project Management Team

FROM: Carl D. Springer, P.E., PTOE, DKS Associates
Julie Sosnovske, P.E., DKS Associates
Ben Chaney, EIT, DKS Associates

SUBJECT: **Linn County Transportation System Plan |** P14180-010
Task 5.1 Technical Memorandum #7: Future Transportation Conditions and Needs

The objective of the transportation planning process is to generate information necessary for making decisions that will result in safe and efficient travel options through 2040, the planning horizon year for the Linn County Transportation System Plan. This memo describes the expected future transportation conditions and discusses the major areas of need. The information presented here will inform a solutions development process in later memos.

The condition of Linn County's future transportation system depends on the growth in population and employment, future travel patterns (e.g., choice of modes, routes, and frequency of trips), and community investment decisions. Growth in population and the number of jobs is forecast based on historical trends and expert knowledge of the county and region. Future travel patterns are more difficult to predict as the community's investment decisions and the economy can have significant effect on choice of modes and routes.

Methodology For Estimating Future Travel

The 2040 transportation conditions in Linn County were forecasted based on trips that new growth will generate, assuming:

- No new investments in infrastructure beyond what already is funded for construction,
- Continuation of the same modal distribution (i.e., private motor vehicle, transit, walking, biking) of trips, and
- Continuation of current travel behaviors, based on decisions and preferences of existing residents, employers, tourists, and institutions around the region.

This memo describes where the transportation system is expected to perform satisfactorily and areas of the roadway network likely to be congested and in need of investments to function adequately in the future. Subsequent memos will explore solutions for addressing future transportation system needs.

Technical Memorandum #6 provides more detail on the motor vehicle travel forecasting process. The forecasting process for Linn County includes a combination of high-level regional travel demand modeling, statewide forecasts of future highway volumes, and analysis of local growth trends.

Future Estimates of Walking, Biking, and Transit

The methodology for determining future needs for walking, biking, and transit in Linn County begins with an assessment of who is walking, biking, and taking transit now and where they are traveling. These modes are summarized in Technical Memorandum #5 (Existing Transportation Conditions).

The existing facilities were then compared to major growth areas of the County, and in proximity to and connecting key destinations, such as schools, parks, transit stops, shopping and employment. A review of the County shows that the walking and biking infrastructure is inadequate along many roadways. The presence of adequate walking and biking facilities along major roadways (arterial and collectors) in Linn County is limited. Deficient walking and biking systems may discourage active transportation in and between developed communities, and are a safety concern in rural areas.

Baseline Roadway Network Improvements

The baseline condition reflects the roadway network performance for motor vehicles, assuming that only transportation projects that already have secured funding will be built. Funded projects include:

- **OR 34/Seven Mile Lane:** Installation of a traffic signal.
- **Brownsville Road Bike Lanes:** Roadway widening to include bike lanes on both sides of the road. This project extends from Washburn Heights Drive to Rock Hill Drive.
- **Seven Mile Lane Widening:** Roadway widening to include bike lanes on both sides of the road. This project extends from Columbus Street to the I-5 overpass. The intersection of Seven Mile Lane with Columbus would be improved to add a center turn lane and right turn lane as well as possibly a merging lane going north on Columbus. The OR 34/Columbus Street intersection will be reconfigured as a right-in/right-out only intersection when the traffic signal is installed at OR 34/Seven Mile Lane.
- **Riverside Drive Widening:** Roadway widening to include bike lanes on both sides of the road. Some geometric deficiencies will be improved with the widening. This project extends from Oakville Road to Meadow Road.
- **Walnut Drive/Oakville Road intersection and road improvement:** Roadway widening to include a center northbound left-turn lane on Oakville Road and improved turning radii.
- **Quartzville Road Widening:** Roadway widening to include bike lanes on both sides of the road. In addition, three parking areas with restrooms and information kiosks will be constructed along the corridor. Some geometric deficiencies will be improved with the widening. This project extends from US 20 to the end of the County's road jurisdiction.

Snapshot of Linn County in 2040

Linn County's many urban and rural communities are expected to see steady growth between now and 2040, as more people live, work, and visit the county. The transportation system is critical to accommodating this growth and providing for a strong economy.

Rising Population and Employment

Today, Linn County is home to approximately 121,000 residents[1] and accounts for approximately 38,200 jobs[2]. By 2040, Linn County is expected to have about 156,500[3] residents, a household growth rate of just over one percent a year and a 30 percent increase from 2015.

Urban areas are expected to accommodate much of the population and employment growth. The regional travel demand model for the Corvallis, Albany, and Lebanon region – nicknamed the CALM model – provides a more detailed population and employment forecast for the urban areas of Linn County and nearby cities that strongly influence the county's travel patterns. Although specific employment forecasts are not available in the rest of the county, these models provide a useful proxy to discuss general trends in the county. By 2040, county urban area employment is expected to be about 94,500 jobs. This represents an average growth rate of 1.8 percent per year and a 45 percent increase from 2015. Additionally, population and employment growth in the adjacent cities of Corvallis and Philomath will drive traffic growth on OR 34. Growth in Jefferson will drive traffic growth on OR 164.

Table 1 summarizes selected population and employment growth forecasts from the CALM model for urban areas of Linn County.

Table 1: Urban Population and Employment Growth

UGB Area	Population 2015	Population 2040	25 Year Population Growth	Employment 2015	Employment 2040	25 year Employment Growth
Albany	53,430	64,640	21%	20,770	27,760	34%
Lebanon	20,020	28,370	42%	6,720	11,780	75%
Millersburg	1,410	1,680	19%	2,400	3,930	64%
Tangent	1,290	1,530	19%	1,020	1,270	25%
Sodaville	320	380	19%	50	60	20%
Waterloo	280	330	18%	10	10	0%
Urban Total	**73,600**	**97,970**	**27%**	**28,390**	**45,210**	**45%**

[1] 2013 Forecasts of Oregon's County Populations and Components of Change, 2010-2050, Prepared by Office of Economic Analysis, Department of Administrative Services, State of Oregon, Released March 28, 2013.
[2] OnTheMap, Linn County 2014 Total Primary Jobs. U.S. Census Bureau, Center for Economic Studies.
[3] Office of Economic Analysis, Department of Administrative Services, State of Oregon

More Travel and Tourism

With more jobs, residents, and through travel, key highways such as US 20 and OR 34 in Linn County must accommodate hundreds more motor vehicle trips during the evening peak hour. Today, the Linn County roadway network is generally able to handle evening peak hour trips; however, the evening peak hour motor vehicle trips are likely to increase by 25 to 35 percent at some intersections along OR 34 and US 20 by 2040.

2040 motor vehicle volumes for both 30th highest hour and average weekday conditions were utilized to determine areas on the baseline roadway network that will be congested and may require future investments to accommodate forecasted growth. The 2040 baseline motor vehicle volumes for study intersections, shown in the appendix, indicate that traffic volume growth is anticipated to be highest along OR 34, which connects I-5 and Corvallis (Oregon State University), and US 20, which connects I-5 and Albany with Lebanon and Lebanon with Sweet Home. Other roadways are expected to experience less significant traffic increases, particularly through the rural area.

Increasing Motor Vehicle Congestion

An increase in motor vehicle travel leads to an increase in congestion. Travel activity, as reflected by evening peak hour motor vehicle trips beginning or ending in Linn County, is expected to increase significantly through 2040. Through trips (i.e., trips that neither begin nor end in Linn County) are also expected to increase through 2040 and are generally representative of increased growth in Oregon.

Figure 1 shows that many future peak period congested locations are expected to be along OR 34 between Corvallis and Lebanon during the 30th highest hour. Congestion would be expected to occur at intersections along this segment during the peak months (typically June through August and October); however, these roadways would be less congested during an average weekday. Additional locations of notable congestion include US 20 between Albany and Lebanon, OR 164 between Millersburg and Jefferson, and portions of OR 22 / US 20 without passing lanes between Marion County and Jefferson County. Most congestion is forecast to occur at intersections, segment operations are discussed further in the "Declining Corridor Health" section.

2040 Baseline 30th highest hour (30 HV) p.m. peak hour intersection operations, displayed in Figure 1 and shown in Table 2, show that with the increased roadway network congestion, one signalized intersection and four unsignalized intersections along state highways will fail to meet Oregon Highway Plan (OHP) mobility targets during the 30 HV peak hour (see appendix for more detail). Additionally, one unsignalized intersection will fail to meet County mobility targets. At unsignalized intersections, infrequent gaps in the steady volumes of highway traffic will result in long delays for travelers on these side roadway approaches. The following intersections are expected to not meet mobility targets:

- OR 34 / Peoria Road (Signalized)
    - A very busy signalized intersection, this intersection's v/c exceeds mobility targets under existing conditions and will continue to get more congested as traffic volumes grow.
- OR 34 / Denny School Road (Unsignalized)

- A busy and higher-growth unsignalized intersection, this intersection has improvements that allow for two-stage left turns off of Denny School Road (allowing vehicles to move from the side street to the median in the first stage and from the median to the travel lane in the second stage – allowing drivers to use traffic stream gaps in one direction at a time to facilitate their turn). Even so, the side street movements have a v/c ratio exceeding mobility targets under existing conditions and demand is forecast to exceed capacity by 2040.

- US 20 / Knox Butte Drive (Unsignalized)
  - A higher-growth unsignalized intersection, left turns from Knox Butte Drive onto US 20 are forecasted to grow approximately 50% over existing conditions and, combined with high conflicting flow, are forecast to push the v/c above mobility targets for that movement by 2040.
- US 20 / OR 226 (Unsignalized)
  - Although the side street left turn volumes are low at this unsignalized intersection, the conflicting flow is high enough that the v/c is forecast to exceed mobility targets for that movement by 2040.
- OR 164 / Scravel Hill Road (Unsignalized)
  - Forecasts indicate that by 2040 this unsignalized intersection will see high growth in traffic volumes as the primary connection between Millersburg and Jefferson. This growth in conflicting flow is forecasted to result in a v/c for the side street approach that slightly exceeds mobility targets.
- Denny School Road / Oak Drive (Unsignalized)
  - This unsignalized intersection under County jurisdiction exceeds the LOS D mobility target for the side roadway, although volumes and v/c ratios are relatively low. LOS is based on average delay, and indicates that for a relatively low (less than 20) number of vehicles, peak hour delay will exceed County mobility targets.

Forecasts also indicate the OR 34/Oakville Road North unsignalized intersection is expected to operate with a v/c of 0.69 on the major road, which is approaching its 0.70 mobility target.

2040 Baseline Average weekday p.m. peak hour intersection operations, included in Table 2, show the average weekday operations are better than the peak conditions and therefore, several intersections that did not meet mobility targets under peak conditions are expected to meet mobility targets under average weekday conditions. However, the following four intersections are still expected to not meet existing OHP or Linn County mobility targets during average weekday operations:

- OR 34 / Peoria Road (Signalized)
- OR 34 / Denny School Road (Unsignalized)
- US 20 / Knox Butte Drive (Unsignalized)
- Denny School Road / Oak Drive (Unsignalized)

Preliminary signal warrants were checked at the unsignalized intersections to assess the feasibility of intersection signalization to address motor vehicle operations. When assessing long-term signal warrants (further than three years in the future) ODOT's Transportation Planning and Analysis Unit (TPAU) uses Signal Warrants 1, Case A and Case B (MUTCD), which deal primarily with high average daily volumes on the intersecting minor street and high volumes on the major street. Meeting preliminary signal warrants does not guarantee that a signal shall be installed. Before a signal can be installed on a State Highway, a field warrant analysis is conducted by the Region. If warrants are met, the State Traffic Engineer will make the final decision on the installation of a signal.

Based on the preliminary signal warrants, only the intersection of US 20 and Knox Butte Road may be eligible for future signalization based on traffic volumes. In general, ODOT prefers not to install traffic signals in rural or rural fringe areas, particularly on high-speed facilities. Other potential improvements, such as roundabouts or additional turn lanes, will also be considered at this location.

None of the other unsignalized study intersections meet ODOT's future signal warrants. It should be noted that ODOT does consider warrants based on other criteria (peak hour traffic, pedestrian volume, crash history, etc.) when based on short-term (less than three years in the future) traffic forecasts. Documentation, including Synchro HCM reports and ODOT preliminary signal warrant worksheets, are included in the appendix.

Although traffic analysis of Interstate 5 is not included in this project, it is important to note that a proposed set of projects exist to improve capacity and safety for Interstate 5 in the Albany-Millersburg area of Linn County. The project area covers from the Santiam Highway (US 20) Interchange to the South Jefferson (OR 164) Interchange.[4] The primary improvement components include:

- Add one 12-foot travel lane in each direction to the I-5 mainline within the project area, rebuilding mainline bridges and interchange bridges, and adding sound walls where needed.
- Add a new, fully directional interchange at Millersburg and close the existing Viewcrest and Murder Creek interchanges.
- Reconfigure the existing Knox Butte and US 20 interchange pair to improve their operation, add sound walls, and add a southbound I-5 access ramp at Knox Butte.
- Improve local roadway system connections to the proposed new and improved interchanges.

The improvements have been split into six independent projects for funding, design, and construction purposes. Design funding for one project has been amended into the 2015-2018 ODOT STIP list, covering many of the mainline and interchange improvements for the Knox Butte and Santiam interchange pair. No additional funding has yet been secured. An amendment to Linn County's Comprehensive Plan for development within an Exclusive Farm Use zoned parcel at the new Millersburg interchange will eventually be needed to achieve project compliance.

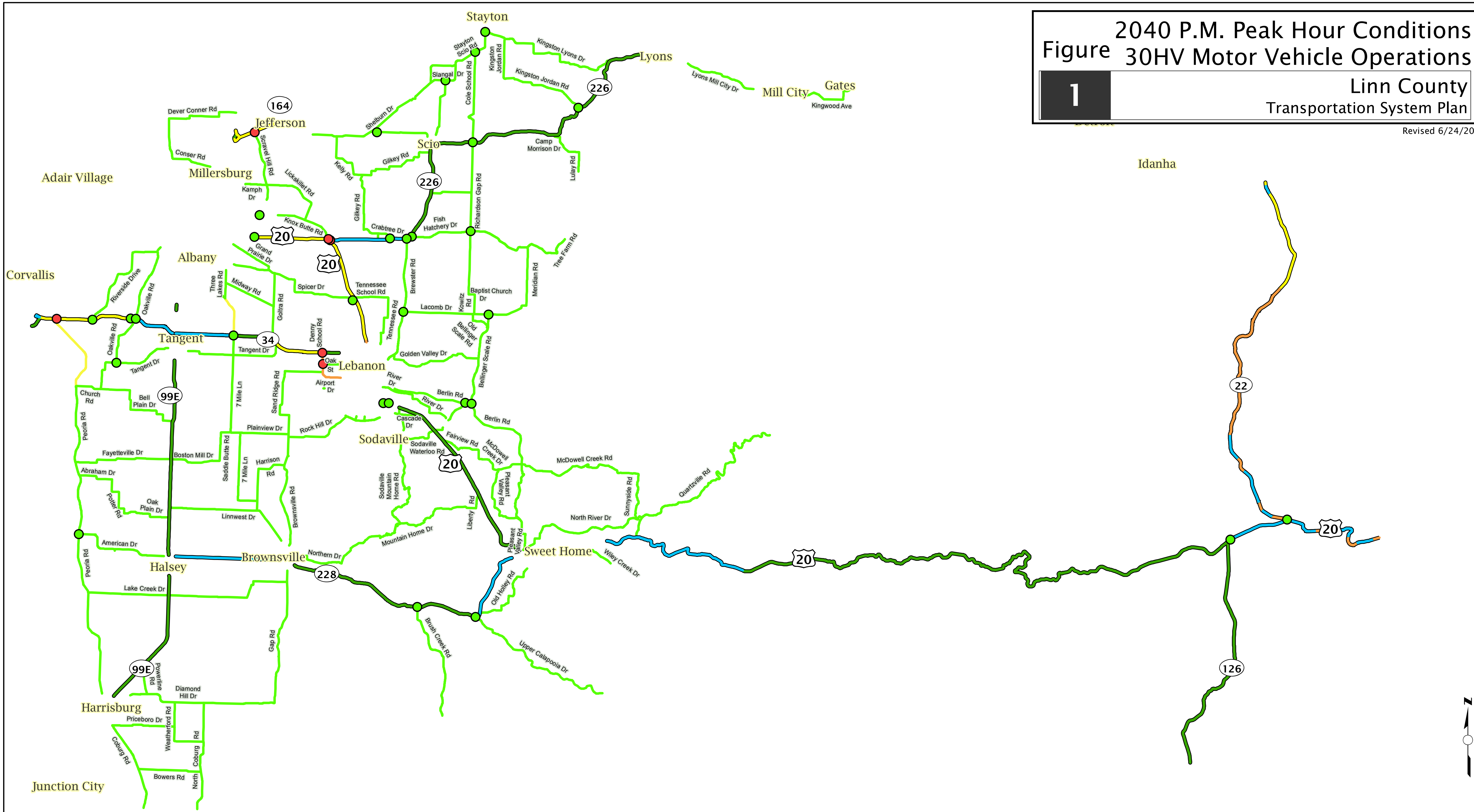
[4] I-5: South Jefferson Interchange to US 20 Interchange, Design Baseline Evaluation. December 2015. Prepared by ODOT Region 2. A separate coordinated effort (using FAST Act funding) is planning and designing a third lane in the Salem portion of I-5.

Figure 1

2040 P.M. Peak Hour Conditions 30HV Motor Vehicle Operations

Linn County Transportation System Plan

Revised 6/24/2016



Note: Motor vehicle operations assessed outside UGBs on roads with functional classification of minor collector and above, excluding I-5.

Legend

P.M. Peak Hour Operations

- LOS D (Segments)
- LOS C (Segments)
- LOS B (Segments)
- LOS A (Segments)

ODOT County Jurisdiction

- Does Not Meet Mobility Targets (Study Intersections)
- Meets Mobility Targets (Study Intersections)

- Interstate
- State Highways
- County Arterials and Collectors
- County Local Roads

- Water
- Urban Growth Boundary

LOGO

Table 2: 2040 Motor Vehicle Operations Summary

Bold and Highlighted – indicates mobility target not met

#	Intersection	Jurisdiction	Signalized/ Unsignalized	Mobility Target	30 HV	Average Weekday
1	OR 34/Denny School Rd	ODOT	Unsignalized	0.70/0.75	0.02/**1.17**	0.01/**0.92**
2	Denny School Road/Oak Dr	County	Unsignalized	LOS D	A/**F**	A/**E**
3	Central Ave/Crowfoot Rd Cascade Dr/Crowfoot Rd	County (w/in UGB)	Unsignalized Unsignalized	LOS D LOS D	A/B A/B	A/B A/B
4	US 20/Crowfoot Rd	ODOT (w/in UGB)	Unsignalized	0.85/0.90	0.14/0.41	0.11/0.31
5	US 20/Knox Butte Dr	ODOT	Unsignalized	0.70/0.75	0.02/**1.06**	0.01/**0.77**
6	US 20/OR 226	ODOT	Unsignalized	0.70/0.75	0.36/**0.83**	0.30/0.55
7	US 20/OR 126 (McKenzie Hwy)	ODOT	Unsignalized	0.70/0.70	0.12/0.12	0.08/0.08
8	US 20/OR 22/OR 126	ODOT	Unsignalized	0.70/0.70	0.25/0.34	0.15/0.17
9	Stayton-Scio Rd/Cole School Rd	County	Unsignalized	LOS D	A/C	A/B
10	Stayton-Scio Rd/Kingston-Jordan Rd	County	Unsignalized	LOS D	A/B	A/B
11	Stayton-Scio Rd/Slangal Dr	County	Unsignalized	LOS D	A/B	A/B
12	OR 34/Oakville Rd N	ODOT	Unsignalized	0.70/0.75	0.69/0.58	0.60/0.51
13	OR 34/Oakville Rd S	ODOT	Unsignalized	0.70/0.75	0.15/0.23	0.13/0.20
14	OR 34/Peoria Road	ODOT	Signalized	0.70	**1.00**	**0.94**
15	OR 34/Riverside Dr	ODOT	Unsignalized	0.70/0.75	0.28/0.22	0.24/0.19
16	OR 34/Seven Mile Ln	ODOT	Signalized	0.70	0.66	0.60

#	Intersection	Jurisdiction	Signalized/ Unsignalized	Mobility Target	30 HV	Average Weekday
17	OR 226/Brewster Rd	ODOT	Unsignalized	0.75/0.75	0.06/0.21	0.05/0.17
18	OR 226/Crabtree Dr	ODOT	Unsignalized	0.75/0.75	0.01/0.03	0.01/0.03
19	OR 226/Fish Hatchery Dr	ODOT	Unsignalized	0.75/0.75	0.01/0.11	0.01/0.09
20	OR 226/Kingston-Jordan Dr	ODOT	Unsignalized	0.75/0.75	0.05/0.02	0.04/0.02
21	OR 226/Richardson Gap Rd	ODOT	Unsignalized	0.75/0.75	0.03/0.20	0.03/0.16
22	OR 226/Brush Creek Rd	ODOT	Unsignalized	0.75/0.75	0.04/0.12	0.03/0.09
23	OR 228/Upper Calapooia Dr	ODOT	Unsignalized	0.75/0.75	0.02/0.06	0.02/0.05
24	US 20/Spicer Rd	ODOT	Unsignalized	0.70/0.75	0.11/0.45	0.09/0.36
25	Berlin Rd/Bellinger Scale Rd	County	Unsignalized	LOS D	A/A	A/A
26	Berlin Rd/Waterloo Rd	County	Unsignalized	LOS D	A/A	A/A
27	Brewster Rd/Lacomb Dr	County	Unsignalized	LOS D	A/B	A/B
28	Jefferson-Scio Rd/Shelburn Dr	County	Unsignalized	LOS D	A/A	A/A
29	Bellinger Scale Rd/Lacomb Dr	County	Unsignalized	LOS D	A/A	A/A
30	Oakville Rd/Tangent Dr	County	Unsignalized	LOS D	A/A	A/A
31	Peoria Rd/American Dr	County	Unsignalized	LOS D	A/B	A/B
32	Fish Hatchery Dr/Richardson Gap Rd	County	Unsignalized	LOS D	A/B	A/B
33	US 20/Scravel Hill Rd	ODOT (w/in UGB)	Unsignalized	0.95/0.95	0.12/0.16	0.10/0.12
34	Knox Butte Rd/Scravel Hill Rd	County (w/in UGB)	Unsignalized	LOS D	A/B	A/B
35	OR 164/Scravel Hill Rd	ODOT	Unsignalized	0.75/0.75	0.13/**0.78**	0.10/0.53

Linn County Transportation System Plan

Declining Corridor Health

An increase in traffic volumes along roadways is expected to lead to declining health of the corridors in Linn County. The corridor health concept is based on the idea of measuring the "health" of a corridor for several different categories of performance, and then combining the measurements to provide a picture of overall corridor health. Table 3 summarizes the scoring categories and criteria used for the Corridor Health Tool. For more information on the Corridor Health Tool, and scores for existing conditions, see Technical Memorandum #5.

Segment traffic operations were modified to reflect future 2040 peak (30 HV) conditions. Using the annual growth rates documented in Technical Memorandum #6, traffic volumes were forecasted through 2040 along roadways in the county. The forecasted traffic volumes were utilized to update LOS and v/c ratios, and compared to existing mobility targets to establish a Corridor Health category score for 2040. As traffic operations are the most sensitive to future volume changes, this category saw the most change from existing to future conditions.

No county roadway segments exceed the established mobility target of LOS D. Four county roadways, including parts of Peoria Road, Knox Butte Road, Scravel Hill Road, and Stayton-Scio Road, were reduced from "Good" to "Fair" or "Poor" category score due to reduced operational performance on the segment or an adjacent study intersection.

No State highway segments exceed the v/c mobility targets established in the Oregon Highway Plan (OHP). OHP v/c mobility targets range from 0.70 to 0.80 based on OHP highway classification, status as a freight route, and whether the highway passes through unincorporated communities. Further details and a table of results are provided in the Appendix. For the Corridor Health Tool, State highways were evaluated using HCM 2010 LOS methodology. For two-lane highways, which are prevalent in Linn County, LOS provides a better performance measure than v/c ratio. As described in ODOT's Analysis Procedures Manual:

> " Two-lane highway operations are characterized by passing maneuvers, formation of platoons within the traffic stream, and delay experienced by trailing vehicles unable to pass lead vehicles. [...] Quality of service becomes unacceptable even for lower volume-to-capacity (v/c) ratios. Hence, use of volume-to-capacity ratio may not be a good performance measure for two-lane highway analysis. [...][It] creates a misleading result as it does not reflect any of the driver behavior present (platooning, inability to maintain desired speed, etc.) on a two-lane highway. The HCM 2010 manual uses Percent-Time Spent Following (PTSF, Average Travel Speed (ATS), and Percent Free-flow Speed (PFFS) as a measure to assess two-lane highways operations." [5]

State highways where LOS declined from A or B to C include portions of US 20, OR 34, OR 164, and OR 226. State highways where LOS declined from C to D include portions of US 20 and OR 22

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[5] ODOT Analysis Procedures Manual Version 2 Addendum 11B. https://www.oregon.gov/ODOT/TD/TP/APM/Add11B.pdf

without passing lanes. Of note, the operations score for some segments of US 20 between Albany and Lebanon were reduced to "Poor" due to side street movements at study intersections failing to meet mobility targets, even though the segment operations remain above LOS D.

Geometrics and access spacing evaluations in the Corridor Health Tool rely on performance standards that are based on traffic volumes, however the primary measure (shoulder width, lane width, and average number of access points) is not included in the long-range traffic forecasts. Along some roadways, higher motor vehicle volumes increase the required design standard, or desirable, shoulder widths. However, these changes did not result in a reduction in the Corridor Health category score of any roadways. For county roadways with committed projects that add bike lanes or widened shoulders, a score of "Good" was assigned for the future conditions.

Safety evaluations are based on the existing observed crash rate, which is not changed in the forecast for future conditions. As such, this category includes no change from existing to future conditions.

Scores for each of the four categories were then weighted in the same manner as in the existing conditions analysis, shown in Table 3. The results are summarized below.

2040 Corridor Health assessments, are displayed in Figure 2 and a table of scores is provided in the appendix. Approximately 95 miles of state highways and 92 miles of county roadways are expected to have "poor" corridor health assessments overall. This represents a decrease of approximately seven miles of "poor" roadway segments from existing 2015 conditions, due to almost 20 miles of roadways where the Corridor Health assessments is expected to improve from committed projects.

Overall, approximately 10 miles of roadway would be expected to have overall corridor health assessments decline a category (i.e. "Good" to "Fair") from existing 2015 conditions, none of which are county roadways. No segments declined to "Poor" from existing 2015 conditions.

Three roadways (10 miles) declined from an overall assessments of "Good" to "Fair," including:

- OR 34 between Peoria Road and Oakville Road
- OR 164 Between I-5 and Jefferson UGB
- OR 226 between US 20 and Cold Springs Road

Three roadways (19.5 miles) increased from "Fair" or "Poor" to "Good," due to committed projects which will improve the roadway geometry (by providing shoulders or bike lanes), including:

- Riverside Drive between Oakville Road and OR 34.
- Brownsville Road between Rockhill Drive and Harrison Road
- Quartzville Road between US 20 and Forest Road

Figure 2 displays the 2040 Corridor Health Tool overall assessment, highlighting locations where the overall corridor health assessment has changed from existing conditions. For select corridors with an overall assessment of "Poor," the component score descriptions are provided.

Table 3: Corridor Health Tool Scoring Methodology

Category	Weight	Scoring Criteria
Safety	35	Safety is scored by comparing the segment crash rate (crashes per million vehicle miles traveled) to the ODOT published statewide averages for similar facilities. **Good**: Crash rate at or below average **Fair**: Crash rate between 100% and 150% of average **Poor**: Crash rate over 150% of average
Geometrics	25	Geometrics is scored by evaluating the segment travel lane width and paved shoulder width. Shoulder widths are compared to minimum and desired widths, as described in the existing conditions memo. **Good**: Shoulder width meets desired *OR* shoulder width meets minimum and lane width at least 11 feet **Fair**: Shoulder width meets minimum *OR* shoulder width does not meet minimum and lane width at least 11 feet **Poor**: Shoulder width does not meet minimum and lane width not at least 11 feet
Traffic Operations	20	Traffic operations is scored by evaluating the P.M. peak hour level of service on the segment and identifying any study intersections that do not meet mobility targets. **Good**: Segment LOS A or LOS B **Fair**: Segment LOS C **Poor**: Segment LOS D, or segment includes a study intersection which does not meet mobility targets.
Pavement Condition	10	Pavement conditions are scored based on Pavement Condition Index (PCI) score ranges established by ODOT or Linn County. **Good**: Pavement condition "very good" **Fair**: Pavement condition any intermediate score **Poor**: Pavement condition "poor" or worse
Access Density	10	Access density is scored based on ODOT's spacing standards. Access density was only evaluated on OR-34 and US-20 based on county staff input, all other segments received a default score of good. **Good**: Access spacing meets ODOT's spacing standard in both directions **Fair**: Access spacing meets ODOT's spacing standard in one direction **Poor**: Access spacing does not meet ODOT's spacing standard in either direction

Overall Corridor Health score is a weighted sum of the category score, where: Poor = 0 points, Fair = 0.5 point, and Good = 1 point. Sub-segment scores based on available data are aggregated to corridor segments defined by intersections with roads classified as collector or higher. Length-weighted averages are used to aggregate scores along segments.

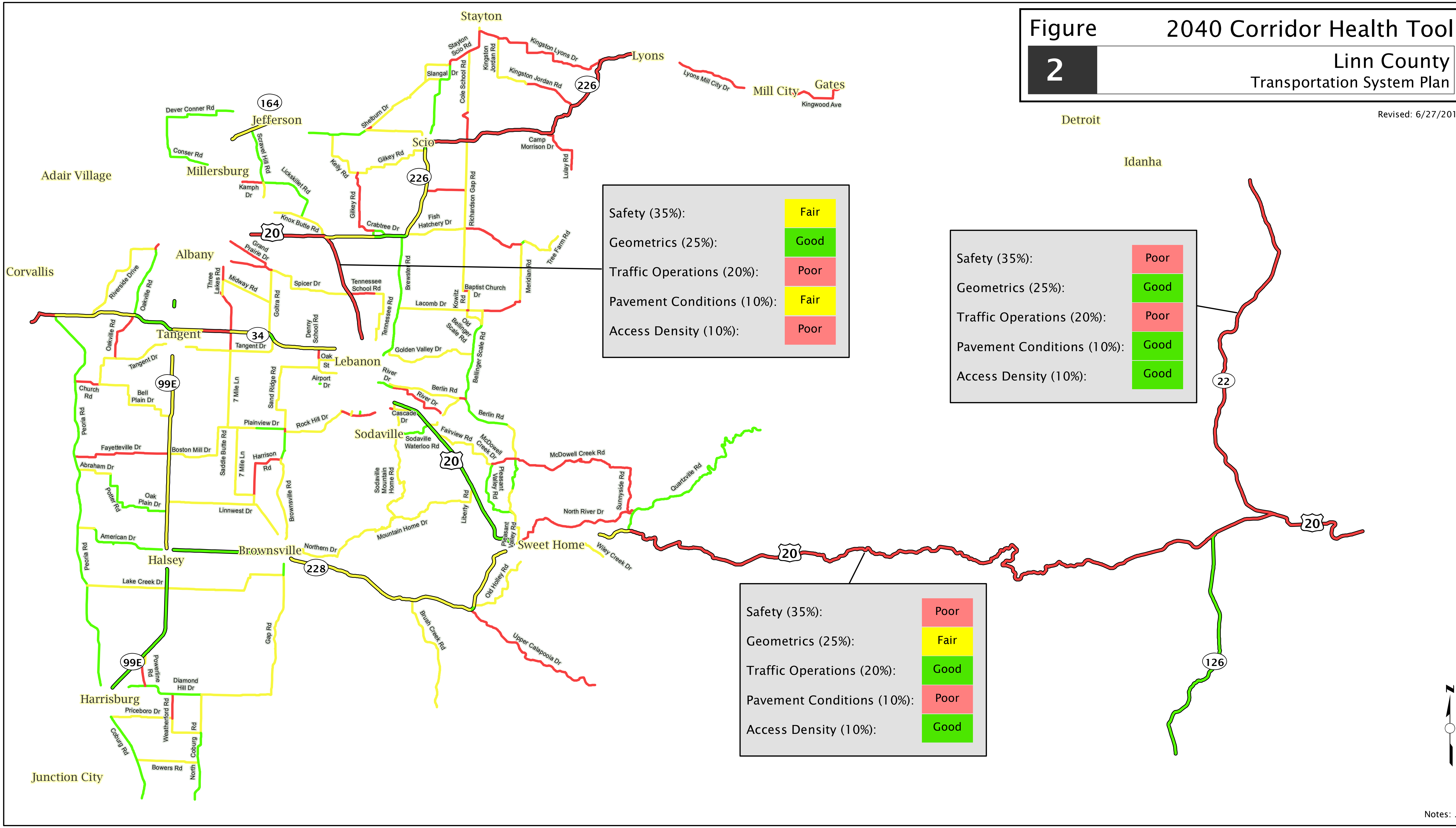
Overall Corridor Health scores of 85 or higher are assessed as "Good," scores of 70 or higher are assessed as "Fair," and scores below 70 are assessed as "Poor." These breakpoints were chosen to produce an informative diversity of results, and do not represent performance against established targets or standards.

Figure 2

2040 Corridor Health Tool

Linn County
Transportation System Plan

Revised: 6/27/2016



Legend

Overall Corridor Health Assessment

Poor (score less than 70)
Fair (score 70-85)
Good (score of 85 or higher)
ODOT County Jurisdiction

Segments with a change in overall Corridor Health assessment from Existing Conditions are marked with a blue highlight:

Roadways Not Evaluated
Interstate
State Highways in UGBs
County Local Roads

Water
Urban Growth Boundary

LOGO

Where Transportation Improvements may be Needed

Along with an increase in congestion at specific locations as discussed above, there are many transportation improvements that would be beneficial for the county to consider. Review of the expected growth throughout the County and existing gaps and deficiencies of the transportation system identified the following additional opportunities for improvements.

Walking Needs

Pedestrian network deficiencies are present throughout the county and will become more evident as the county's population and employment continues to increase through 2040. Placing more walking demand on an underbuilt existing walking network could potentially put more users in vulnerable situations, and discourage non-motorized travel near and between urban centers of the county. For a further discussion of walking facilities, refer to Technical Memorandum #5.

Given the lack of available data on pedestrian volumes, there is a need to establish prioritization guidelines for pedestrian accommodations based on available or new data sources. With this in mind, key transportation system needs for pedestrians in Linn County include:

- **Inadequate shoulders along rural roadways:** Many high speed or limited visibility roadways throughout rural areas of the county lack shoulders with adequate width for safe pedestrian travel. These roadways, including portions of OR 226, OR 228, OR 99E, and US 20 near Albany, will need widened shoulders to allow for safe walking and provide connections to regional pedestrian facilities or public transportation.
- **Pedestrian facilities/crossings along routes that provide access to transit, schools, parks, and open space:** Increased housing and shopping opportunities through 2040 means more people will be within walking distance of their destination. Additionally, improvements in recreational destinations throughout the county will continue to attract activity to rural areas. Much of the growth will require those walking to travel down roadways with existing pedestrian facility gaps and inconvenient roadway crossing opportunities. These roadways, including those near transit, schools, parks, and rural business areas, will need pedestrian facilities and enhanced

An example of an enhanced bicycle and pedestrian trail crossing with a Rectangular Rapid Flashing Beacon roadway crossings (such as high visibility markings, increased roadway lighting, or active warning beacons) to encourage walking to these destinations.

- **Sidewalks and enhanced pedestrian crossings along OR 34, US 20 and OR 99E:** With as many as five travel lanes and high traffic volumes and travel speeds, OR 34, US 20, and OR 99E can be major barriers to pedestrians. Although development opportunities are limited in rural areas, providing safe walking accommodations is important for the safety of those walking along and across the roadway.

  Those walking along the highway will also face increased motor vehicle traffic, creating more potential conflicts in areas with inadequate facilities or highway crossings. Placing additional demand on some of the existing highway crossings may necessitate enhanced elements such as pedestrian refuge islands, curb extensions, high visibility markings, increased signage or lighting, or pedestrian activated signals.

Biking Needs

The existing bicycle network is limited in the county. While designated bicycle facilities (e.g. bike lanes, shared use paths) are not common in a rural environment, wide shoulders facilitate safe bicycle travel alongside motor vehicles. With increased motor vehicle volumes along major biking routes in the county through 2040, designating separate spaces for bicycle and motor vehicle travel will become more critical to ensuring the safety of cyclists and encouraging biking in the county. For an inventory of bicycle facilities, refer to Technical Memorandum #5.

Given the lack of available data on bicycle volumes, there is a need to establish prioritization guidelines for bicycle accommodations based on available or new data sources. With this in mind, key transportation system needs for bicyclists in Linn County include:

- **Bike accommodations along portions of OR 34, US 20 and other major roadways connecting to urban areas:** Bicycle accommodations are limited along US 34**,** US 20, OR 99E and other arterial roadways throughout the county, with shoulders not meeting desired width for the existing traffic volume as documented in Technical Memorandum #5. These roadways form the backbone of the biking network in the county, linking many of the communities and recreational destinations throughout the county. With increased motor vehicle traffic expected along these roadways through 2040, providing accommodations for bicycle travel will be critical to ensuring a safe and complete transportation system.
- **Bicycle wayfinding signage:** Biking routes can be enhanced in the county with signage to orient users and direct them to major destinations like communities, parks, schools, or other popular destinations. Residents or visitors may be unaware that they are within a reasonable bike ride to key destinations in the county or that a local biking route is nearby. Directional signage indicating locations of destinations and travel time/distance to those destinations increases users' comfort and accessibility to the pedestrian and bicycle systems, especially for bicyclists less familiar with the county's road network.

Transit Needs

There are two updates to local transit plans underway currently. The Albany Area Metropolitan Planning Organization's (AAMPO) Regional Transit Development Plan (TDP) is a comprehensive operational analysis of transit service within the federally-defined AAMPO boundary. A regional transit map, developed for the AAMPO TDP is included in the appendix to this memo. The Central Willamette Valley Coordinated Services Plan, being developed by the Association of Oregon Counties and ODOT Public Transit, examines the demographics and transit services within the entirety of Linn County. The Benton County Coordinated Plan and Lebanon Transit Development Plan also include elements with significance to Linn County. Findings and recommendations from all of these plans will be incorporated into and referenced from the Linn County Transportation System Plan as appropriate.

Existing transit services primarily serve the communities within and adjacent to Linn County, including Albany, Sweet Home, Lebanon, and Corvallis. The Linn Benton Community College in Albany provides connections between major transit services in the area. The Albany Transit System (ATS) provides fixed route and call-a-ride service within Albany, while Lebanon Transit provides dial-a-bus service within Lebanon and has plans for a fixed route service. The Linn Shuttle is based in Sweet Home and connects with Lebanon and Albany, providing fixed route service as well as a dial-a-ride service. The Linn-Benton Loop connects Albany and Corvallis. The Chemeketa Area Regional Transportation System (CARTS), run by Salem-Keizer Transit, connects Mill City and Lyons, with downtown Salem through fixed route service in Marion County. Greyhound and Amtrak provide private inter-city services from Albany. Some additional specialized demand response programs exist to serve citizens with disabilities or medical needs.

Rural residents and those in smaller communities have limited access to transit. These services provide mobility and economic opportunity for the county's residents, including the most economically or socially vulnerable. Transit services travel through rural areas in Linn County, however all formal transit stops are within cities and generally are the responsibility of the transit agency. The County has the opportunity to improve the safety, efficiency, and convenience of transit for residents and visitors by providing funding, facilitating coordination between transit providers, and providing an accessible environment near transit facilities.

New and improved transit facilities throughout Linn County should follow the planning guidance provided in the Transportation and Growth Management Program's publication Transit in Small Cities: A Primer for Planning, Siting, and Designing Transit Facilities in Oregon.[6] Additionally, the Oregon Highway Design Manual[7] provides guidance on integrating public transit into projects located on state highways. Any improvements require compliance with State and Federal Americans with Disabilities Act (ADA) requirements, and would be implemented in partnership with the transit provider.

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[6] Published March 2013, available at <https://www.oregon.gov/ODOT/PT/resources/guidance-library/transit-in-small-cities.pdf>

[7] Published 2012, Chapter 12 covers public transportation guidelines, available at <https://www.oregon.gov/ODOT/HWY/ENGSERVICES/Pages/hwy_manuals.aspx >

Specific opportunities for Linn County to promote safe, efficient, and convenient transit include:

- **Pedestrian connections to transit stops:** With increased motor vehicle congestion and additional tourism, more residents and visitors may want to turn to the transit system as a means of traveling in the county. The walking infrastructure that connects riders to transit stops is critical as these users typically utilize these facilities at the beginning and end of their trip. Wide paved shoulders or other pedestrian facilities (e.g. sidewalk infill) along high ridership locations is critical to providing safe and convenient access to transit. New or enhanced roadway crossings are also valuable, especially along or near high-traffic state highways. Enhancements may include pedestrian refuge islands, curb extensions, high visibility markings, increased signage or lighting, or pedestrian activated signals.
- **Bus stops with shelters and other amenities:** Many transit stops in Linn County include limited amenities. Provision of passenger amenities at higher volume bus stops creates a safer, more accessible, and functional environment for bus riders and may encourage people to use the transit system. Common amenities can include: shelters, lighting, benches, trash cans, bike racks, and bus route and schedule information. Route and schedule information especially are helpful for routes with infrequent service and for users who may be unfamiliar with the system, such as visitors. The county should also consider transit roadway needs, such as bus pull-outs, as requested by transit providers.

Safety Needs

Several locations were identified in Technical Memorandum #5 as high collision locations based on crash rates and through the ODOT SPIS system and ARTS process. For more details on these locations, refer to the Safety Evaluation section of Technical Memorandum #5, including the map shown there in Figure 9. No additional locations were identified. With growing traffic volumes, these problematic areas likely will persist, and may even become progressively worse. Identified high collision locations include the intersections and roadway segments below:

Intersections:

- OR 34/Peoria Road
- Fish Hatchery Drive/Richardson Gap Road
- US 20/Knox Butte Road
- OR 34/Denney School Road
- Bellinger Scale Road/Lacomb Drive
- Oakville Road/Tangent Drive
- Knox Butte Road/Scravel Hill Road
- OR 34/Seven Mile Lane

Segments over 150% of Target Crash Rate:

- State Highways: US 20 east of Cascadia, OR 22 south of Parrish Lake Road.

- County Roadways: Cole School Road, Gilkey Road, Crabtree Drive, Grand Prairie Drive, Spicer Drive, Tennessee School Road, Rock Hill Drive, River Drive, Cascade Drive, Upper Calapooia Drive, Church Road, Riverside Drive, Kamph Drive, Shelburn Drive, Kingston-Jordan Road, Lyons-Mill City Drive

Segments between 100% and 150% of Target Crash Rate:

- State Highways: US 20 between Albany and Lebanon and between Sweet Home and Cascadia, OR 226 between Scio and Lyons, OR 22 between Marion County Line and Parrish Lake Road.
- County Roadways: Kingwood Avenue, Kingston-Lyons Drive, Kingston-Jordan Road, Lulay Road, Stayton-Scio Road, Fish Hatchery Road, Lacomb Drive, Bellinger Scale Road, Waterloo Road, Fairview Road, McDowell Creek Drive, Brush Creek Road, Gap Road, Powerline Road, Harrison Road, Oakville Road, Riverside Drive, Scravel Hill Road

Safety Priority Index System Segments:

- US 20 at Knox Butte Road (MP 6.40 – 6.57)
- US 20 east of Sweet Home (MP 34.52 – 34.69)
- OR 34 at Pedestrian Walkway and Bike Trail (MP 0.26 – 0.37)
- OR 34 at Columbus Street (MP 9.07 – 9.25)

ARTS Locations:

- OR 34/Peoria Road (150% list)
- US 20/Knox Butte Road (150% list)
- OR 34/Seven Mile Lane (300% list)
- OR 34/Olson Road (300% list)
- OR 34/Columbus Street (300% list)
- OR 34/OR 34 Bypass (300% list)

Reported Needs

Consultation with county and ODOT maintenance staff was used as part of the existing conditions analysis (Technical Memorandum #5) to help determine locations with deficiencies that may not show up in the available data. Concerns were mostly safety related, including poor geometrics (e.g. skewed intersections, narrow bicycle or pedestrian accommodations), poor sight distance due to vegetation or curves, and areas with dangerous driver behavior (e.g. not stopping at stop signs).

Many of these locations may have a higher probability of crashes as traffic volumes increase. Most routine maintenance needs become more costly to fix as time goes on. In areas with poor geometrics, higher traffic volumes in the future will likely make crashes more frequent. At locations with dangerous driver behavior, increased traffic volumes or congestion increase the potential for conflicts, risky driver actions, and crashes.

Freight Needs

Efficient truck movement plays a vital role in the economical movement of raw materials and finished products. The designation of through truck routes provides for this efficient movement, while maintaining neighborhood livability, public safety, and minimizing maintenance costs of the roadway system.

Freight activity, currently comprising about five to over 20 percent of traffic along the designated freight routes in Linn County (US 20, OR 34, and OR 99E), could increase by 2040 as much of the employment growth areas are adjacent to these highways.

Highways designated at truck routes by the federal government include I-5, US 20 (between Albany and Sweet Home and east of the OR 22 Junction), OR 99E, OR 34, OR 22 and OR 126, as discussed in Technical Memo #5. ODOT also classifies I-5, US 20, OR 22, OR 34, OR 228 and OR 99E between I-5 and Harrisburg as state freight routes. As some of the intersections that are not expected to meet mobility targets in the future are on these truck and freight routes, Linn County may want to consider technology solutions that prioritize freight mobility.

With increased economic activity in Linn County, and throughout the state, freight mobility and resiliency will remain an important element of the transportation system. The ODOT Highway Over-Dimension Load Pinch Points (HOLPP) Study for Region 2 District 4 identified two high priority pinch points that restrict the tall loads which can be critical to both everyday freight movement and disaster response services. The two high priority pinch points are OR 99E on the Willamette River Bridge in Harrisburg (MP 29.09) and US 20 under the Albany & Eastern Railroad overpass east of Sweet Home (MP 30.57).

Bridge Needs

Seismic resiliency is an important future need in Linn County, and bridges are a critical component determining how well the transportation system will endure and recover from a seismic event. The last comprehensive evaluation of seismic vulnerability for Linn County bridges was completed by ODOT in 1997. This effort identified several seismically vulnerable bridges in Linn County, some of which are located on critical Seismic Lifeline Routes. These bridges provide vital connections for local communities. Although some of these bridges have been replaced or retrofitted, there remains a great number in need of improvement.

Seismic vulnerability, as well as bridge scour status, are important considerations for Linn County and are not captured in the FHWA replacement funding eligibility or structural deficiency evaluation. In the upcoming project development phase of the TSP, a prioritized bridge improvement list will be developed that considers seismic vulnerability, lifeline route locations and community importance, bridge scour status, structural deficiency, and FHWA funding eligibility.

Linn County has applications pending for funding under the Federal Highway Bridge Replacement and Rehabilitation Program (HBRR) for ten bridges that are on non-state roads. These bridges are considered the highest priority for local replacement at this time, and are shown in Table 4 below.

Table 4: High Priority Bridges for Replacement and Rehabilitation

Priority	Bridge ID	County Bridge #	Road Name	Creek Crossing	Project Type	Road Class
1	11964A	20B-490	Berlin Rd.	Hamilton Creek	Replacement	Rural Major Collector
2	12352	218-015	Powerline Rd.	Muddy Creek	Replacement	Rural Local
3	12749	320-082	Clover Ridge Rd.	Truax Creek	Replacement	Urban Collector
4	12877	648-680	Fish Hatchery Dr.	Roaring River	Replacement	Rural Minor Collector
5	12902	834-027	Lulay Rd	Neal Creek	Replacement	Minor Collector
6	12792	651-065	Folson Rd	Mill Creek	Replacement	Local
7	13557	013-557	Boston Mill Rd.	Calapooia River Overflow	Replacement	Rural Major Collector
8	12738	024-462	Brewster Rd.	One Horse Slough	Replacement	Rural Major Collector
9	12965	637-070	Richardson Gap Rd.	Thomas Creek	Rehabilitation	Rural Major Collector
10	12244A	122-414	Tangent Dr.	Owl Creek	Replacement	Rural Local

Rail Needs

As documented in Technical Memorandum #5, rail service providers in Linn County include Amtrak and The Albany & Eastern Railroad Company (AERC). Both rail companies have plans to increase service during the planning horizon. All railroad crossings in Linn County's rural areas are at grade, and as train and vehicular traffic increases there will be increasing chances for crashes to occur.

During the crash data study period (2009-2013), there were four rear-end crashes near rural railroad crossings, none of which involved contact with the train. All occurred at the rail crossing on OR 34 about 700 feet west of the Oakville Road, and one resulted in an evident injury. This at-grade crossing includes active lights and gates. If this crash trend continues or worsens, it may indicate a need for improved or additional warning information for approaching vehicles.

Although no at-grade crashes occurred at other rural crossings during the crash data study period, Linn County should monitor the safety performance of all at-grade crossings for emerging future needs.

Air, Pipeline, and Water Needs

No system investment needs have been identified for Linn County's air, waterway, or pipeline system through 2040, beyond those already identified in the individual modal master plans.

Developing Transportation Solutions

Investments to address the needs of the transportation system through 2040 will be proposed in Technical Memorandum #10. The transportation solutions will be of two types. Those likely to be funded by 2040 will be in the Financially Constrained Transportation System. Projects not likely to be funded by 2040 will be in the Aspirational Transportation System. Linn County must make investment decisions to develop a set of transportation improvements that will likely be funded to best meet identified needs through 2040.

Appendix

- Appendix A – Synchro Highway Capacity Manual Reports
- Appendix B – Study Intersection Future Volume Forecasts
- Appendix C – ODOT Preliminary Signal Warrant Worksheets
- Appendix D – Corridor Health Tool Summary

Appendix A – Synchro Highway Capacity Manual Reports

Intersection	
Int Delay, s/veh	47.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	455	900	15	350	475	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	None
Storage Length	-	0	450	-	300	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	4	2	9	6	8	100
Mvmt Flow	479	947	16	368	500	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	479	0	879	479
Stage 1	-	-	-	-	479	-
Stage 2	-	-	-	-	400	-
Critical Hdwy	-	-	4.19	-	6.48	7.2
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.281	-	3.572	4.2
Pot Cap-1 Maneuver	-	0	1048	-	~ 310	429
Stage 1	-	0	-	-	611	-
Stage 2	-	0	-	-	664	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	1048	-	~ 305	429
Mov Cap-2 Maneuver	-	-	-	-	~ 427	-
Stage 1	-	-	-	-	611	-
Stage 2	-	-	-	-	654	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	127.7
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	WBL	WBT
Capacity (veh/h)	427	429	-	1048	-
HCM Lane V/C Ratio	1.171	0.012	-	0.015	-
HCM Control Delay (s)	128.9	13.5	-	8.5	-
HCM Lane LOS	F	B	-	A	-
HCM 95th %tile Q(veh)	19	0	-	0	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	5	0	5	5	130	0	345	30	165	735	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	50	-	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	33	13	0	7	0	5	2	0
Mvmt Flow	6	6	0	6	6	148	0	392	34	188	835	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1625	1639	838	1625	1625	-	841	0	0	426	0	0
Stage 1	1213	1213	-	409	409	-	-	-	-	-	-	-
Stage 2	412	426	-	1216	1216	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.83	-	4.1	-	-	4.15	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.83	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.83	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4.297	-	2.2	-	-	2.245	-	-
Pot Cap-1 Maneuver	83	101	369	83	87	0	803	-	-	1117	-	-
Stage 1	224	257	-	623	546	0	-	-	-	-	-	-
Stage 2	621	589	-	223	222	0	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	68	84	369	69	72	-	803	-	-	1117	-	-
Mov Cap-2 Maneuver	68	84	-	69	72	-	-	-	-	-	-	-
Stage 1	224	214	-	623	546	-	-	-	-	-	-	-
Stage 2	615	589	-	181	185	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	61.4	66.1	0	1.6
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	803	-	-	75	70	-	1117	-	-
HCM Lane V/C Ratio	-	-	-	0.152	0.162	-	0.168	-	-
HCM Control Delay (s)	0	-	-	61.4	66.1	0	8.9	-	-
HCM Lane LOS	A	-	-	F	F	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.5	-	0.6	-	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	90	40	30	85	30	15	5	5	20	25	0
Conflicting Peds, #/hr	0	0	1	1	0	0	11	0	0	0	0	11
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	7	13	0	7	13	0	10	0	20	10	0
Mvmt Flow	0	106	47	35	100	35	18	6	6	24	29	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	146	0	0	164	0	0	354	357	141	345	363	130
Stage 1	-	-	-	-	-	-	140	140	-	199	199	-
Stage 2	-	-	-	-	-	-	214	217	-	146	164	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.6	6.2	7.3	6.6	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.6	-	6.3	5.6	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.6	-	6.3	5.6	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.09	3.3	3.68	4.09	3.3
Pot Cap-1 Maneuver	1448	-	-	1427	-	-	605	556	912	577	552	925
Stage 1	-	-	-	-	-	-	868	766	-	763	722	-
Stage 2	-	-	-	-	-	-	793	709	-	816	748	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1447	-	-	1426	-	-	562	531	903	551	527	916
Mov Cap-2 Maneuver	-	-	-	-	-	-	562	531	-	551	527	-
Stage 1	-	-	-	-	-	-	860	759	-	756	696	-
Stage 2	-	-	-	-	-	-	738	684	-	804	741	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.6	11.3	12.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	600	1447	-	-	1426	-	-	537
HCM Lane V/C Ratio	0.049	-	-	-	0.025	-	-	0.099
HCM Control Delay (s)	11.3	0	-	-	7.6	0	-	12.4
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.3

Intersection	
Int Delay, s/veh	1.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	1015	45	80	750	35	95
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	100	300	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	5	6	9	10	4	16
Mvmt Flow	1068	47	84	789	37	100

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1068	0	1631	534
Stage 1	-	-	-	-	1068	-
Stage 2	-	-	-	-	563	-
Critical Hdwy	-	-	4.28	-	6.88	7.22
Critical Hdwy Stg 1	-	-	-	-	5.88	-
Critical Hdwy Stg 2	-	-	-	-	5.88	-
Follow-up Hdwy	-	-	2.29	-	3.54	3.46
Pot Cap-1 Maneuver	-	-	608	-	90	456
Stage 1	-	-	-	-	287	-
Stage 2	-	-	-	-	528	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	608	-	78	456
Mov Cap-2 Maneuver	-	-	-	-	194	-
Stage 1	-	-	-	-	287	-
Stage 2	-	-	-	-	455	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	23.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	334	-	-	608	-
HCM Lane V/C Ratio	0.41	-	-	0.139	-
HCM Control Delay (s)	23.1	-	-	11.9	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	1.9	-	-	0.5	-

Intersection	
Int Delay, s/veh	26.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	20	515	385	230	280	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	None
Storage Length	200	-	-	1	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	8	4	7	3	3	0
Mvmt Flow	20	526	393	235	286	20

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	393	0	-	0	959	393
Stage 1	-	-	-	-	393	-
Stage 2	-	-	-	-	566	-
Critical Hdwy	4.18	-	-	-	6.43	6.2
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.272	-	-	-	3.527	3.3
Pot Cap-1 Maneuver	1134	-	-	0	~ 284	660
Stage 1	-	-	-	0	680	-
Stage 2	-	-	-	0	566	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	1134	-	-	-	~ 279	660
Mov Cap-2 Maneuver	-	-	-	-	~ 279	-
Stage 1	-	-	-	-	680	-
Stage 2	-	-	-	-	556	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	107.7
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	SBLn1
Capacity (veh/h)	1134	-	-	290
HCM Lane V/C Ratio	0.018	-	-	1.056
HCM Control Delay (s)	8.2	-	-	107.7
HCM Lane LOS	A	-	-	F
HCM 95th %tile Q(veh)	0.1	-	-	11.8

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	11.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	30	195	425	35	385	430
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	Yield	-	None
Storage Length	0	-	-	100	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	9	6	6	9	4	4
Mvmt Flow	31	203	443	36	401	448

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1693	443	0	0	443	0
Stage 1	443	-	-	-	-	-
Stage 2	1250	-	-	-	-	-
Critical Hdwy	6.49	6.26	-	-	4.14	-
Critical Hdwy Stg 1	5.49	-	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-	-
Follow-up Hdwy	3.581	3.354	-	-	2.236	-
Pot Cap-1 Maneuver	98	606	-	-	1107	-
Stage 1	633	-	-	-	-	-
Stage 2	261	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	63	606	-	-	1107	-
Mov Cap-2 Maneuver	63	-	-	-	-	-
Stage 1	633	-	-	-	-	-
Stage 2	166	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	58.6	0	4.8
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	282	1107	-
HCM Lane V/C Ratio	-	-	0.831	0.362	-
HCM Control Delay (s)	-	-	58.6	10.1	-
HCM Lane LOS	-	-	F	B	-
HCM 95th %tile Q(veh)	-	-	6.9	1.7	-

Intersection	
Int Delay, s/veh	5.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	40	20	160	80	15	105
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Yield
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	12	25	11	12	25	12
Mvmt Flow	44	22	178	89	17	117

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	67	0	500	56
Stage 1	-	-	-	-	56	-
Stage 2	-	-	-	-	444	-
Critical Hdwy	-	-	4.21	-	6.65	6.32
Critical Hdwy Stg 1	-	-	-	-	5.65	-
Critical Hdwy Stg 2	-	-	-	-	5.65	-
Follow-up Hdwy	-	-	2.299	-	3.725	3.408
Pot Cap-1 Maneuver	-	-	1479	-	492	983
Stage 1	-	-	-	-	911	-
Stage 2	-	-	-	-	600	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1479	-	430	983
Mov Cap-2 Maneuver	-	-	-	-	430	-
Stage 1	-	-	-	-	911	-
Stage 2	-	-	-	-	524	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5.2	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1123	-	-	1479	-
HCM Lane V/C Ratio	0.119	-	-	0.12	-
HCM Control Delay (s)	8.6	-	-	7.8	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.4	-

Intersection	
Int Delay, s/veh	5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	255	10	275	295	15	140
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	15	50	12	16	12	14
Mvmt Flow	283	11	306	328	17	156

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	294	0	1228	289
Stage 1	-	-	-	-	289	-
Stage 2	-	-	-	-	939	-
Critical Hdwy	-	-	4.22	-	6.52	6.34
Critical Hdwy Stg 1	-	-	-	-	5.52	-
Critical Hdwy Stg 2	-	-	-	-	5.52	-
Follow-up Hdwy	-	-	2.308	-	3.608	3.426
Pot Cap-1 Maneuver	-	-	1212	-	188	722
Stage 1	-	-	-	-	738	-
Stage 2	-	-	-	-	365	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1212	-	130	722
Mov Cap-2 Maneuver	-	-	-	-	130	-
Stage 1	-	-	-	-	738	-
Stage 2	-	-	-	-	252	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.3	15.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	501	-	-	1212	-
HCM Lane V/C Ratio	0.344	-	-	0.252	-
HCM Control Delay (s)	15.9	-	-	9	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1.5	-	-	1	-

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	170	5	135	170	10	5	5	95	10	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	12	0	5	7	0	0	0	10	0	0	0
Mvmt Flow	0	187	5	148	187	11	5	5	104	11	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	199	0	0	193	0	0	684	687	191	736	683	193
Stage 1	-	-	-	-	-	-	191	191	-	490	490	-
Stage 2	-	-	-	-	-	-	493	496	-	246	193	-
Critical Hdwy	4.1	-	-	4.15	-	-	7.1	6.5	6.3	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.245	-	-	3.5	4	3.39	3.5	4	3.3
Pot Cap-1 Maneuver	1385	-	-	1362	-	-	365	372	831	337	374	854
Stage 1	-	-	-	-	-	-	815	746	-	564	552	-
Stage 2	-	-	-	-	-	-	562	549	-	762	745	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1385	-	-	1362	-	-	328	326	830	263	328	853
Mov Cap-2 Maneuver	-	-	-	-	-	-	328	326	-	263	328	-
Stage 1	-	-	-	-	-	-	814	745	-	564	484	-
Stage 2	-	-	-	-	-	-	490	482	-	661	744	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	3.4	10.9	16.1
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	724	1385	-	-	1362	-	-	342
HCM Lane V/C Ratio	0.159	-	-	-	0.109	-	-	0.048
HCM Control Delay (s)	10.9	0	-	-	8	0	-	16.1
HCM Lane LOS	B	A	-	-	A	A	-	C
HCM 95th %tile Q(veh)	0.6	0	-	-	0.4	-	-	0.2

Intersection	
Int Delay, s/veh	3.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	5	150	285	5	120	320
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	33	6	9	0	9	6
Mvmt Flow	6	172	328	6	138	368

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	974	330	0	0	333	0
Stage 1	330	-	-	-	-	-
Stage 2	644	-	-	-	-	-
Critical Hdwy	6.73	6.26	-	-	4.19	-
Critical Hdwy Stg 1	5.73	-	-	-	-	-
Critical Hdwy Stg 2	5.73	-	-	-	-	-
Follow-up Hdwy	3.797	3.354	-	-	2.281	-
Pot Cap-1 Maneuver	246	702	-	-	1188	-
Stage 1	664	-	-	-	-	-
Stage 2	469	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	210	702	-	-	1188	-
Mov Cap-2 Maneuver	210	-	-	-	-	-
Stage 1	664	-	-	-	-	-
Stage 2	401	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.6	0	2.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	653	1188	-
HCM Lane V/C Ratio	-	-	0.273	0.116	-
HCM Control Delay (s)	-	-	12.6	8.4	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.1	0.4	-

Intersection						
Int Delay, s/veh	0.5					

Movement	EBL	EBT	WBT	WBR	SEL	SER
Vol, veh/h	5	140	140	10	10	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	84	84
Heavy Vehicles, %	0	25	17	0	25	0
Mvmt Flow	6	165	165	12	12	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	176	0	-	0	347	171
Stage 1	-	-	-	-	171	-
Stage 2	-	-	-	-	176	-
Critical Hdwy	4.1	-	-	-	6.65	6.2
Critical Hdwy Stg 1	-	-	-	-	5.65	-
Critical Hdwy Stg 2	-	-	-	-	5.65	-
Follow-up Hdwy	2.2	-	-	-	3.725	3.3
Pot Cap-1 Maneuver	1412	-	-	-	606	878
Stage 1	-	-	-	-	806	-
Stage 2	-	-	-	-	802	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1412	-	-	-	603	878
Mov Cap-2 Maneuver	-	-	-	-	603	-
Stage 1	-	-	-	-	806	-
Stage 2	-	-	-	-	798	-

Approach	EB	WB	SE
HCM Control Delay, s	0.3	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	1412	-	-	-	603
HCM Lane V/C Ratio	0.004	-	-	-	0.02
HCM Control Delay (s)	7.6	0	-	-	11.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	310	2205	1320	35	10	205
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	350	-	-	-	0	200
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	5	7	19	0	4
Mvmt Flow	326	2321	1389	37	11	216

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1426	0	-	0	3221	713
Stage 1	-	-	-	-	1408	-
Stage 2	-	-	-	-	1813	-
Critical Hdwy	4.14	-	-	-	6.8	6.98
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.22	-	-	-	3.5	3.34
Pot Cap-1 Maneuver	473	-	-	-	~ 8	370
Stage 1	-	-	-	-	195	-
Stage 2	-	-	-	-	118	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	473	-	-	-	~ 2	370
Mov Cap-2 Maneuver	-	-	-	-	29	-
Stage 1	-	-	-	-	195	-
Stage 2	-	-	-	-	37	-

Approach	EB	WB	SB
HCM Control Delay, s	3.4	0	35
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	473	-	-	-	29	370
HCM Lane V/C Ratio	0.69	-	-	-	0.363	0.583
HCM Control Delay (s)	27.9	-	-	-	187.8	27.5
HCM Lane LOS	D	-	-	-	F	D
HCM 95th %tile Q(veh)	5.2	-	-	-	1.1	3.5

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	2510	10	20	1505	5	10
Conflicting Peds, #/hr	0	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	175	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	5	0	7	6	0	0
Mvmt Flow	2642	11	21	1584	5	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2654	0	3482	1327
Stage 1	-	-	-	-	2648	-
Stage 2	-	-	-	-	834	-
Critical Hdwy	-	-	4.24	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.27	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	143	-	~ 5	148
Stage 1	-	-	-	-	40	-
Stage 2	-	-	-	-	392	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	143	-	~ 4	148
Mov Cap-2 Maneuver	-	-	-	-	33	-
Stage 1	-	-	-	-	40	-
Stage 2	-	-	-	-	334	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	73.3
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	68	-	-	143	-
HCM Lane V/C Ratio	0.232	-	-	0.147	-
HCM Control Delay (s)	73.3	-	-	34.5	-
HCM Lane LOS	F	-	-	D	-
HCM 95th %tile Q(veh)	0.8	-	-	0.5	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	2375	465	55	1610	10	270	5	75	10	5	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.95	0.95			1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	0.99			0.98	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.93			0.90	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.97			0.99	
Satd. Flow (prot)	1671	3471	1520	1752	3403		1665	1539			1656	
Flt Permitted	0.09	1.00	1.00	0.09	1.00		0.95	0.97			0.90	
Satd. Flow (perm)	153	3471	1520	160	3403		1665	1539			1503	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	16	2500	489	58	1695	11	284	5	79	11	5	42
RTOR Reduction (vph)	0	0	200	0	0	0	0	32	0	0	38	0
Lane Group Flow (vph)	16	2500	289	58	1706	0	187	149	0	0	20	0
Confl. Peds. (#/hr)	1					1			6	6		
Confl. Bikes (#/hr)			2			1			2			8
Heavy Vehicles (%)	8%	4%	4%	3%	6%	0%	3%	100%	3%	0%	0%	0%
Turn Type	Perm	NA	Perm	Perm	NA		Split	NA		Perm	NA	
Protected Phases		4			8		2	2			6	
Permitted Phases	4		4	8						6		
Actuated Green, G (s)	46.1	46.1	46.1	46.1	46.1		13.1	13.1			6.8	
Effective Green, g (s)	46.1	46.1	46.1	46.1	46.1		13.1	13.1			6.8	
Actuated g/C Ratio	0.59	0.59	0.59	0.59	0.59		0.17	0.17			0.09	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	90	2051	898	94	2011		279	258			131	
v/s Ratio Prot		c0.72			0.50		c0.11	0.10				
v/s Ratio Perm	0.10		0.19	0.36							c0.01	
v/c Ratio	0.18	1.22	0.32	0.62	0.85		0.67	0.58			0.15	
Uniform Delay, d1	7.3	15.9	8.1	10.3	13.1		30.4	29.9			32.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.9	103.2	0.2	11.5	3.5		6.2	3.1			0.5	
Delay (s)	8.2	119.1	8.3	21.7	16.6		36.6	33.0			33.5	
Level of Service	A	F	A	C	B		D	C			C	
Approach Delay (s)		100.5			16.8			34.9			33.5	
Approach LOS		F			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	66.7	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	78.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	89.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	105	2405	1550	10	0	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	None
Storage Length	275	-	-	150	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	6	6	25	0	4
Mvmt Flow	111	2532	1632	11	0	68

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1632	0	-	0	3119	816
Stage 1	-	-	-	-	1632	-
Stage 2	-	-	-	-	1487	-
Critical Hdwy	4.12	-	-	-	6.8	6.98
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.21	-	-	-	3.5	3.34
Pot Cap-1 Maneuver	398	-	-	0	9	316
Stage 1	-	-	-	0	148	-
Stage 2	-	-	-	0	177	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	398	-	-	-	6	316
Mov Cap-2 Maneuver	-	-	-	-	65	-
Stage 1	-	-	-	-	148	-
Stage 2	-	-	-	-	128	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	19.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	SBLn1
Capacity (veh/h)	398	-	-	316
HCM Lane V/C Ratio	0.278	-	-	0.217
HCM Control Delay (s)	17.5	-	-	19.5
HCM Lane LOS	C	-	-	C
HCM 95th %tile Q(veh)	1.1	-	-	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	1290	70	10	650	125	35	35	25	175	40	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	0.95		0.95	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94		1.00	0.93	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	0.99	
Satd. Flow (prot)	1641	3505	1538	1583	3312	1553	1618	1592		1698	1575	
Flt Permitted	0.39	1.00	1.00	0.25	1.00	1.00	0.66	0.98		0.71	0.91	
Satd. Flow (perm)	666	3505	1538	414	3312	1553	1125	1566		1271	1447	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	47	1358	74	11	684	132	37	37	26	184	42	63
RTOR Reduction (vph)	0	0	38	0	0	68	0	7	0	0	46	0
Lane Group Flow (vph)	47	1358	36	11	684	64	33	60	0	145	98	0
Heavy Vehicles (%)	10%	3%	5%	14%	9%	4%	6%	4%	10%	1%	8%	7%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	16.1	16.1	16.1	16.1	16.1	16.1	9.0	9.0		9.0	9.0	
Effective Green, g (s)	16.1	16.1	16.1	16.1	16.1	16.1	9.0	9.0		9.0	9.0	
Actuated g/C Ratio	0.49	0.49	0.49	0.49	0.49	0.49	0.27	0.27		0.27	0.27	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	323	1704	748	201	1610	755	305	425		345	393	
v/s Ratio Prot		c0.39			0.21							
v/s Ratio Perm	0.07		0.02	0.03		0.04	0.03	0.04		c0.11	0.07	
v/c Ratio	0.15	0.80	0.05	0.05	0.42	0.09	0.11	0.14		0.42	0.25	
Uniform Delay, d1	4.7	7.1	4.5	4.5	5.5	4.6	9.0	9.1		9.9	9.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.2	2.7	0.0	0.1	0.2	0.0	0.2	0.2		0.8	0.3	
Delay (s)	4.9	9.8	4.5	4.6	5.7	4.6	9.2	9.3		10.7	9.7	
Level of Service	A	A	A	A	A	A	A	A		B	A	
Approach Delay (s)		9.4			5.5			9.2			10.2	
Approach LOS		A			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	8.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	33.1	Sum of lost time (s)	8.0
Intersection Capacity Utilization	58.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	3.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	230	65	70	130	35	85
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	50	300	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	4	2	7	8	3	4
Mvmt Flow	256	72	78	144	39	94

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	256	0	556	256
Stage 1	-	-	-	-	256	-
Stage 2	-	-	-	-	300	-
Critical Hdwy	-	-	4.17	-	6.43	6.24
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.263	-	3.527	3.336
Pot Cap-1 Maneuver	-	-	1280	-	490	778
Stage 1	-	-	-	-	784	-
Stage 2	-	-	-	-	749	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1280	-	460	778
Mov Cap-2 Maneuver	-	-	-	-	460	-
Stage 1	-	-	-	-	784	-
Stage 2	-	-	-	-	703	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.8	12
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	647	-	-	1280	-
HCM Lane V/C Ratio	0.206	-	-	0.061	-
HCM Control Delay (s)	12	-	-	8	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.8	-	-	0.2	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	5	290	140	20	10	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	4	7	6	14	0
Mvmt Flow	6	322	156	22	11	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	178	0	-	0	500	167
Stage 1	-	-	-	-	167	-
Stage 2	-	-	-	-	333	-
Critical Hdwy	4.1	-	-	-	6.54	6.2
Critical Hdwy Stg 1	-	-	-	-	5.54	-
Critical Hdwy Stg 2	-	-	-	-	5.54	-
Follow-up Hdwy	2.2	-	-	-	3.626	3.3
Pot Cap-1 Maneuver	1410	-	-	-	510	882
Stage 1	-	-	-	-	834	-
Stage 2	-	-	-	-	700	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1410	-	-	-	507	882
Mov Cap-2 Maneuver	-	-	-	-	507	-
Stage 1	-	-	-	-	834	-
Stage 2	-	-	-	-	697	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	11.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1410	-	-	-	591
HCM Lane V/C Ratio	0.004	-	-	-	0.028
HCM Control Delay (s)	7.6	0	-	-	11.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	50	5	215	95	0	145
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	0	5	4	0	11
Mvmt Flow	56	6	239	106	0	161

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	453	292	0	0	344	0
Stage 1	292	-	-	-	-	-
Stage 2	161	-	-	-	-	-
Critical Hdwy	6.45	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	559	752	-	-	1226	-
Stage 1	751	-	-	-	-	-
Stage 2	861	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	559	752	-	-	1226	-
Mov Cap-2 Maneuver	559	-	-	-	-	-
Stage 1	751	-	-	-	-	-
Stage 2	861	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	572	1226	-
HCM Lane V/C Ratio	-	-	0.107	-	-
HCM Control Delay (s)	-	-	12	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Intersection	
Int Delay, s/veh	4.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	65	10	15	50	20	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	14	0	9	11	0	0
Mvmt Flow	72	11	17	56	22	17

Major/Minor	Major2		Major1		Minor2	
Conflicting Flow All	72	-	0	0	44	222
Stage 1	-	-	-	-	0	150
Stage 2	-	-	-	-	44	72
Critical Hdwy	4.24	-	-	-	6.4	6.5
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	5.4	5.5
Follow-up Hdwy	2.326	-	-	-	3.5	4
Pot Cap-1 Maneuver	1455	-	-	-	972	680
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	984	839
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1455	-	-	-	924	0
Mov Cap-2 Maneuver	-	-	-	-	924	0
Stage 1	-	-	-	-	-	0
Stage 2	-	-	-	-	984	0

Approach	WB	NB	SB
HCM Control Delay, s	6.6	0	9
HCM LOS			A

Minor Lane/Major Mvmt	NBT	NBR	WBL	WBR	SBLn1
Capacity (veh/h)	-	-	1455	-	924
HCM Lane V/C Ratio	-	-	0.05	-	0.024
HCM Control Delay (s)	-	-	7.6	-	9
HCM Lane LOS	-	-	A	-	A
HCM 95th %tile Q(veh)	-	-	0.2	-	0.1

Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	15	45	30	40	50	0	30	60	40	10	65	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	31	10	4	14	16	0	0	4	6	0	8	12
Mvmt Flow	16	48	32	43	54	0	32	65	43	11	70	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	54	0	0	81	0	0	277	237	65	291	253	54
Stage 1	-	-	-	-	-	-	97	97	-	140	140	-
Stage 2	-	-	-	-	-	-	180	140	-	151	113	-
Critical Hdwy	4.41	-	-	4.24	-	-	7.1	6.54	6.26	7.1	6.58	6.32
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.54	-	6.1	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.54	-	6.1	5.58	-
Follow-up Hdwy	2.479	-	-	2.326	-	-	3.5	4.036	3.354	3.5	4.072	3.408
Pot Cap-1 Maneuver	1385	-	-	1444	-	-	679	660	988	665	640	986
Stage 1	-	-	-	-	-	-	914	811	-	868	769	-
Stage 2	-	-	-	-	-	-	826	777	-	856	790	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1385	-	-	1444	-	-	593	632	988	568	613	986
Mov Cap-2 Maneuver	-	-	-	-	-	-	593	632	-	568	613	-
Stage 1	-	-	-	-	-	-	903	801	-	858	745	-
Stage 2	-	-	-	-	-	-	717	753	-	744	781	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	3.4	11.4	11.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	699	1385	-	-	1444	-	-	635
HCM Lane V/C Ratio	0.2	0.012	-	-	0.03	-	-	0.144
HCM Control Delay (s)	11.4	7.6	0	-	7.6	0	-	11.6
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.7	0	-	-	0.1	-	-	0.5

Intersection	
Int Delay, s/veh	2.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	145	20	40	115	15	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	9	6	11	11	20	20
Mvmt Flow	171	24	47	135	18	71

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	194	0	411	182
Stage 1	-	-	-	-	182	-
Stage 2	-	-	-	-	229	-
Critical Hdwy	-	-	4.21	-	6.6	6.4
Critical Hdwy Stg 1	-	-	-	-	5.6	-
Critical Hdwy Stg 2	-	-	-	-	5.6	-
Follow-up Hdwy	-	-	2.299	-	3.68	3.48
Pot Cap-1 Maneuver	-	-	1327	-	564	816
Stage 1	-	-	-	-	808	-
Stage 2	-	-	-	-	768	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1327	-	543	816
Mov Cap-2 Maneuver	-	-	-	-	543	-
Stage 1	-	-	-	-	808	-
Stage 2	-	-	-	-	739	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2	10.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	741	-	-	1327	-
HCM Lane V/C Ratio	0.119	-	-	0.035	-
HCM Control Delay (s)	10.5	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	200	20	25	180	5	35
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Yield	-	None	-	None
Storage Length	-	50	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	12	13	4	9	0	11
Mvmt Flow	211	21	26	189	5	37

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	211	0	453	212
Stage 1	-	-	-	-	211	-
Stage 2	-	-	-	-	242	-
Critical Hdwy	-	-	4.14	-	6.4	6.31
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.236	-	3.5	3.399
Pot Cap-1 Maneuver	-	-	1348	-	568	806
Stage 1	-	-	-	-	829	-
Stage 2	-	-	-	-	803	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1347	-	555	805
Mov Cap-2 Maneuver	-	-	-	-	555	-
Stage 1	-	-	-	-	829	-
Stage 2	-	-	-	-	785	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	10
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	762	-	-	1347	-
HCM Lane V/C Ratio	0.055	-	-	0.02	-
HCM Control Delay (s)	10	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	5	210	5	5	5	115	445	10	5	465	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	-	-	-	-	300	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	2	0	50	0	3	6	0	0	4	0
Mvmt Flow	5	5	221	5	5	5	121	468	11	5	489	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1216	1211	489	1324	1211	468	489	0	0	468	0	0
Stage 1	500	500	-	711	711	-	-	-	-	-	-	-
Stage 2	716	711	-	613	500	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.22	7.1	7	6.2	4.13	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	6	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.318	3.5	4.45	3.3	2.227	-	-	2.2	-	-
Pot Cap-1 Maneuver	159	184	579	134	148	599	1069	-	-	1104	-	-
Stage 1	557	546	-	427	372	-	-	-	-	-	-	-
Stage 2	424	439	-	483	471	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	139	162	579	74	131	599	1069	-	-	1104	-	-
Mov Cap-2 Maneuver	139	162	-	74	131	-	-	-	-	-	-	-
Stage 1	494	544	-	379	330	-	-	-	-	-	-	-
Stage 2	367	389	-	294	469	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.7	36.2	1.8	0.1
HCM LOS	C	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1069	-	-	512	131	1104	-	-
HCM Lane V/C Ratio	0.113	-	-	0.452	0.121	0.005	-	-
HCM Control Delay (s)	8.8	-	-	17.7	36.2	8.3	-	-
HCM Lane LOS	A	-	-	C	E	A	-	-
HCM 95th %tile Q(veh)	0.4	-	-	2.3	0.4	0	-	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	90	70	45	35	15	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	4	0	7	7	7
Mvmt Flow	100	78	50	39	17	78

Major/Minor	Major1		Minor1		Major2	
Conflicting Flow All	78	0	389	78	78	-
Stage 1	-	-	278	-	-	-
Stage 2	-	-	111	-	-	-
Critical Hdwy	-	-	6.5	6.27	4.17	-
Critical Hdwy Stg 1	-	-	5.5	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	4	3.363	2.263	-
Pot Cap-1 Maneuver	-	-	549	969	1489	-
Stage 1	-	-	684	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-				-
Mov Cap-1 Maneuver	-	-	0	969	1489	-
Mov Cap-2 Maneuver	-	-	0	-	-	-
Stage 1	-	-	0	-	-	-
Stage 2	-	-	0	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s		9.1	1.3
HCM LOS		A	

Minor Lane/Major Mvmt	EBL	EBT	WBLn1	SBL	SBR
Capacity (veh/h)	-	-	969	1489	-
HCM Lane V/C Ratio	-	-	0.092	0.011	-
HCM Control Delay (s)	-	-	9.1	7.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Intersection	
Int Delay, s/veh	5.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	55	10	75	45	15	105
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	14	8	0	0	5
Mvmt Flow	59	11	80	48	16	112

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	69	0	271	64
Stage 1	-	-	-	-	64	-
Stage 2	-	-	-	-	207	-
Critical Hdwy	-	-	4.18	-	6.4	6.25
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.272	-	3.5	3.345
Pot Cap-1 Maneuver	-	-	1495	-	723	992
Stage 1	-	-	-	-	964	-
Stage 2	-	-	-	-	832	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1495	-	683	992
Mov Cap-2 Maneuver	-	-	-	-	683	-
Stage 1	-	-	-	-	964	-
Stage 2	-	-	-	-	786	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.7	9.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	939	-	-	1495	-
HCM Lane V/C Ratio	0.136	-	-	0.053	-
HCM Control Delay (s)	9.4	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0.2	-

Intersection	
Int Delay, s/veh	3.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	85	15	130	130	45	110
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	7	8	5	5	0	9
Mvmt Flow	96	17	146	146	51	124

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	444	220	0	0	292	0
Stage 1	219	-	-	-	-	-
Stage 2	225	-	-	-	-	-
Critical Hdwy	6.47	6.28	-	-	4.1	-
Critical Hdwy Stg 1	5.47	-	-	-	-	-
Critical Hdwy Stg 2	5.47	-	-	-	-	-
Follow-up Hdwy	3.563	3.372	-	-	2.2	-
Pot Cap-1 Maneuver	562	805	-	-	1281	-
Stage 1	806	-	-	-	-	-
Stage 2	801	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	537	804	-	-	1280	-
Mov Cap-2 Maneuver	537	-	-	-	-	-
Stage 1	806	-	-	-	-	-
Stage 2	766	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.9	0	2.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	565	1280	-
HCM Lane V/C Ratio	-	-	0.199	0.04	-
HCM Control Delay (s)	-	-	12.9	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.7	0.1	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	15	100	55	0	5	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	7	7	6	0	0	0
Mvmt Flow	18	118	65	0	6	12

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	65	0	-	0	218	65
Stage 1	-	-	-	-	65	-
Stage 2	-	-	-	-	153	-
Critical Hdwy	4.17	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.263	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1506	-	-	-	775	1005
Stage 1	-	-	-	-	963	-
Stage 2	-	-	-	-	880	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1506	-	-	-	765	1005
Mov Cap-2 Maneuver	-	-	-	-	765	-
Stage 1	-	-	-	-	963	-
Stage 2	-	-	-	-	869	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1506	-	-	-	910
HCM Lane V/C Ratio	0.012	-	-	-	0.019
HCM Control Delay (s)	7.4	0	-	-	9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection							
Int Delay, s/veh	2.2						

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	105	45	15	40	20	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	6	6	10	3	17	14
Mvmt Flow	124	53	18	47	24	29

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	176	0	232	150
Stage 1	-	-	-	-	150	-
Stage 2	-	-	-	-	82	-
Critical Hdwy	-	-	4.2	-	6.57	6.34
Critical Hdwy Stg 1	-	-	-	-	5.57	-
Critical Hdwy Stg 2	-	-	-	-	5.57	-
Follow-up Hdwy	-	-	2.29	-	3.653	3.426
Pot Cap-1 Maneuver	-	-	1353	-	724	866
Stage 1	-	-	-	-	842	-
Stage 2	-	-	-	-	905	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1353	-	714	866
Mov Cap-2 Maneuver	-	-	-	-	714	-
Stage 1	-	-	-	-	842	-
Stage 2	-	-	-	-	892	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.1	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	791	-	-	1353	-
HCM Lane V/C Ratio	0.067	-	-	0.013	-
HCM Control Delay (s)	9.9	-	-	7.7	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	5	85	25	5	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	4	14	0	0	0
Mvmt Flow	6	100	29	6	0	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	35	0	-	0	144	32
Stage 1	-	-	-	-	32	-
Stage 2	-	-	-	-	112	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1589	-	-	-	853	1048
Stage 1	-	-	-	-	996	-
Stage 2	-	-	-	-	918	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1589	-	-	-	850	1048
Mov Cap-2 Maneuver	-	-	-	-	850	-
Stage 1	-	-	-	-	996	-
Stage 2	-	-	-	-	914	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	8.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1589	-	-	-	1048
HCM Lane V/C Ratio	0.004	-	-	-	0.006
HCM Control Delay (s)	7.3	0	-	-	8.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	5	0	5	0	40	5	90	5	55	90	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	6	0	7	0	6	1	0
Mvmt Flow	6	6	0	6	0	46	6	103	6	63	103	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	374	354	106	354	354	106	109	0	0	109	0	0
Stage 1	233	233	-	118	118	-	-	-	-	-	-	-
Stage 2	141	121	-	236	236	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.26	4.1	-	-	4.16	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.354	2.2	-	-	2.254	-	-
Pot Cap-1 Maneuver	587	574	954	605	574	937	1494	-	-	1457	-	-
Stage 1	775	716	-	891	802	-	-	-	-	-	-	-
Stage 2	867	800	-	772	713	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	537	545	954	577	545	937	1494	-	-	1457	-	-
Mov Cap-2 Maneuver	537	545	-	577	545	-	-	-	-	-	-	-
Stage 1	772	683	-	887	799	-	-	-	-	-	-	-
Stage 2	821	797	-	730	680	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.8	9.4	0.4	2.8
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1494	-	-	541	876	1457	-	-
HCM Lane V/C Ratio	0.004	-	-	0.021	0.059	0.043	-	-
HCM Control Delay (s)	7.4	0	-	11.8	9.4	7.6	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	25	50	15	0	15	15	10	40	5	20	55	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	14	0	0	0	0	0	0	12	0	12	13	5
Mvmt Flow	28	56	17	0	17	17	11	45	6	22	62	28

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	34	0	0	73	0	0	191	155	65	171	154	25
Stage 1	-	-	-	-	-	-	121	121	-	25	25	-
Stage 2	-	-	-	-	-	-	70	34	-	146	129	-
Critical Hdwy	4.24	-	-	4.1	-	-	7.1	6.62	6.2	7.22	6.63	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.62	-	6.22	5.63	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.62	-	6.22	5.63	-
Follow-up Hdwy	2.326	-	-	2.2	-	-	3.5	4.108	3.3	3.608	4.117	3.345
Pot Cap-1 Maneuver	1503	-	-	1540	-	-	773	719	1005	771	718	1043
Stage 1	-	-	-	-	-	-	888	777	-	968	853	-
Stage 2	-	-	-	-	-	-	945	847	-	833	769	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1503	-	-	1540	-	-	692	705	1005	719	704	1043
Mov Cap-2 Maneuver	-	-	-	-	-	-	692	705	-	719	704	-
Stage 1	-	-	-	-	-	-	871	762	-	950	853	-
Stage 2	-	-	-	-	-	-	853	847	-	765	754	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.1	0	10.5	10.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	722	1503	-	-	1540	-	-	770
HCM Lane V/C Ratio	0.086	0.019	-	-	-	-	-	0.146
HCM Control Delay (s)	10.5	7.4	0	-	0	-	-	10.5
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	0.5

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	120	570	425	5	5	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	170	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	6	6	6	33	0	8
Mvmt Flow	126	600	447	5	5	74

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	453	0	-	0	1303	450
Stage 1	-	-	-	-	450	-
Stage 2	-	-	-	-	853	-
Critical Hdwy	4.16	-	-	-	6.4	6.28
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.254	-	-	-	3.5	3.372
Pot Cap-1 Maneuver	1087	-	-	-	179	597
Stage 1	-	-	-	-	647	-
Stage 2	-	-	-	-	421	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1087	-	-	-	158	597
Mov Cap-2 Maneuver	-	-	-	-	158	-
Stage 1	-	-	-	-	647	-
Stage 2	-	-	-	-	372	-

Approach	EB	WB	SB
HCM Control Delay, s	1.5	0	13.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1087	-	-	-	504
HCM Lane V/C Ratio	0.116	-	-	-	0.157
HCM Control Delay (s)	8.7	-	-	-	13.5
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.4	-	-	-	0.6

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	45	130	15	15	120	15	10	90	20	10	45	60
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	4	0	10	6	0	20	7	0	11	9	0
Mvmt Flow	49	141	16	16	130	16	11	98	22	11	49	65

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	147	0	0	158	0	0	475	426	149	478	426	139
Stage 1	-	-	-	-	-	-	247	247	-	171	171	-
Stage 2	-	-	-	-	-	-	228	179	-	307	255	-
Critical Hdwy	4.13	-	-	4.2	-	-	7.3	6.57	6.2	7.21	6.59	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.3	5.57	-	6.21	5.59	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.3	5.57	-	6.21	5.59	-
Follow-up Hdwy	2.227	-	-	2.29	-	-	3.68	4.063	3.3	3.599	4.081	3.3
Pot Cap-1 Maneuver	1429	-	-	1374	-	-	471	513	903	483	510	915
Stage 1	-	-	-	-	-	-	718	693	-	810	744	-
Stage 2	-	-	-	-	-	-	736	742	-	684	684	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1429	-	-	1374	-	-	388	487	903	384	484	915
Mov Cap-2 Maneuver	-	-	-	-	-	-	388	487	-	384	484	-
Stage 1	-	-	-	-	-	-	691	667	-	779	734	-
Stage 2	-	-	-	-	-	-	630	732	-	548	658	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.8	0.8	14.3	12.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	516	1429	-	-	1374	-	-	623
HCM Lane V/C Ratio	0.253	0.034	-	-	0.012	-	-	0.201
HCM Control Delay (s)	14.3	7.6	0	-	7.7	0	-	12.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1	0.1	-	-	0	-	-	0.7

Intersection	
Int Delay, s/veh	9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	695	45	100	420	20	25	10	120	15	10	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	280	-	270	150	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	2	0	3	4	0	7	11	6	0	0	0
Mvmt Flow	6	772	50	111	467	22	28	11	133	17	11	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	489	0	0	772	0	0	1489	1494	772	1556	1483	478
Stage 1	-	-	-	-	-	-	783	783	-	700	700	-
Stage 2	-	-	-	-	-	-	706	711	-	856	783	-
Critical Hdwy	4.1	-	-	4.13	-	-	7.17	6.61	6.26	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.17	5.61	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.17	5.61	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.227	-	-	3.563	4.099	3.354	3.5	4	3.3
Pot Cap-1 Maneuver	1085	-	-	839	-	-	100	118	393	93	126	591
Stage 1	-	-	-	-	-	-	379	392	-	433	444	-
Stage 2	-	-	-	-	-	-	419	423	-	355	407	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1085	-	-	839	-	-	83	102	393	51	109	591
Mov Cap-2 Maneuver	-	-	-	-	-	-	83	102	-	51	109	-
Stage 1	-	-	-	-	-	-	377	390	-	431	385	-
Stage 2	-	-	-	-	-	-	353	367	-	227	405	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.8	62.8	96.6
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	220	1085	-	-	839	-	-	65
HCM Lane V/C Ratio	0.783	0.005	-	-	0.132	-	-	0.427
HCM Control Delay (s)	62.8	8.3	-	-	9.9	-	-	96.6
HCM Lane LOS	F	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	5.6	0	-	-	0.5	-	-	1.7

Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	40	80	15	100	60	0	15	35	45	0	50	90
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	11	11	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	8	7	0	8	7	0	0	12	11	0	5	2
Mvmt Flow	47	94	18	118	71	0	18	41	53	0	59	106

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	82	0	0	123	0	0	607	525	115	572	534	83
Stage 1	-	-	-	-	-	-	208	208	-	317	317	-
Stage 2	-	-	-	-	-	-	399	317	-	255	217	-
Critical Hdwy	4.18	-	-	4.18	-	-	7.1	6.62	6.31	7.1	6.55	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.62	-	6.1	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.62	-	6.1	5.55	-
Follow-up Hdwy	2.272	-	-	2.272	-	-	3.5	4.108	3.399	3.5	4.045	3.318
Pot Cap-1 Maneuver	1478	-	-	1428	-	-	411	444	914	434	448	976
Stage 1	-	-	-	-	-	-	799	711	-	698	649	-
Stage 2	-	-	-	-	-	-	631	637	-	754	718	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1477	-	-	1427	-	-	292	385	905	339	388	966
Mov Cap-2 Maneuver	-	-	-	-	-	-	292	385	-	339	388	-
Stage 1	-	-	-	-	-	-	765	681	-	668	588	-
Stage 2	-	-	-	-	-	-	462	577	-	644	687	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.2	4.8	14.4	12.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	495	1477	-	-	1427	-	-	631
HCM Lane V/C Ratio	0.226	0.032	-	-	0.082	-	-	0.261
HCM Control Delay (s)	14.4	7.5	0	-	7.7	0	-	12.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.9	0.1	-	-	0.3	-	-	1

Intersection	
Int Delay, s/veh	19.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	395	785	15	305	410	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	None
Storage Length	-	0	450	-	300	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	4	2	9	6	8	100
Mvmt Flow	416	826	16	321	432	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	416	0	769	416
Stage 1	-	-	-	-	416	-
Stage 2	-	-	-	-	353	-
Critical Hdwy	-	-	4.19	-	6.48	7.2
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.281	-	3.572	4.2
Pot Cap-1 Maneuver	-	0	1106	-	~ 361	471
Stage 1	-	0	-	-	653	-
Stage 2	-	0	-	-	698	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	1106	-	~ 356	471
Mov Cap-2 Maneuver	-	-	-	-	468	-
Stage 1	-	-	-	-	653	-
Stage 2	-	-	-	-	688	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	53.8
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	WBL	WBT
Capacity (veh/h)	468	471	-	1106	-
HCM Lane V/C Ratio	0.922	0.011	-	0.014	-
HCM Control Delay (s)	54.3	12.7	-	8.3	-
HCM Lane LOS	F	B	-	A	-
HCM 95th %tile Q(veh)	10.6	0	-	0	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	5	0	5	5	115	0	300	25	145	640	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	50	-	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	33	13	0	7	0	5	2	0
Mvmt Flow	6	6	0	6	6	131	0	341	28	165	727	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1418	1429	730	1418	1418	-	733	0	0	369	0	0
Stage 1	1060	1060	-	355	355	-	-	-	-	-	-	-
Stage 2	358	369	-	1063	1063	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.83	-	4.1	-	-	4.15	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.83	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.83	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4.297	-	2.2	-	-	2.245	-	-
Pot Cap-1 Maneuver	116	136	426	116	118	0	881	-	-	1173	-	-
Stage 1	273	303	-	666	578	0	-	-	-	-	-	-
Stage 2	664	624	-	272	264	0	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	99	117	426	100	101	-	881	-	-	1173	-	-
Mov Cap-2 Maneuver	99	117	-	100	101	-	-	-	-	-	-	-
Stage 1	273	260	-	666	578	-	-	-	-	-	-	-
Stage 2	657	624	-	229	227	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	42.6	45.6	0	1.6
HCM LOS	E	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	881	-	-	107	100	-	1173	-	-
HCM Lane V/C Ratio	-	-	-	0.106	0.114	-	0.14	-	-
HCM Control Delay (s)	0	-	-	42.6	45.6	0	8.6	-	-
HCM Lane LOS	A	-	-	E	E	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.4	-	0.5	-	-

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	80	35	25	75	25	15	5	5	20	25	0
Conflicting Peds, #/hr	0	0	1	1	0	0	11	0	0	0	0	11
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	7	13	0	7	13	0	10	0	20	10	0
Mvmt Flow	0	94	41	29	88	29	18	6	6	24	29	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	129	0	0	146	0	0	313	313	127	305	319	115
Stage 1	-	-	-	-	-	-	126	126	-	173	173	-
Stage 2	-	-	-	-	-	-	187	187	-	132	146	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.6	6.2	7.3	6.6	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.6	-	6.3	5.6	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.6	-	6.3	5.6	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.09	3.3	3.68	4.09	3.3
Pot Cap-1 Maneuver	1469	-	-	1448	-	-	643	589	929	613	585	943
Stage 1	-	-	-	-	-	-	883	777	-	789	741	-
Stage 2	-	-	-	-	-	-	819	730	-	830	761	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1468	-	-	1447	-	-	601	566	920	588	562	934
Mov Cap-2 Maneuver	-	-	-	-	-	-	601	566	-	588	562	-
Stage 1	-	-	-	-	-	-	875	770	-	782	718	-
Stage 2	-	-	-	-	-	-	768	707	-	818	754	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.5	10.9	11.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	637	1468	-	-	1447	-	-	573
HCM Lane V/C Ratio	0.046	-	-	-	0.02	-	-	0.092
HCM Control Delay (s)	10.9	0	-	-	7.5	0	-	11.9
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.3

Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	885	40	70	650	30	85
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	100	300	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	5	6	9	10	4	16
Mvmt Flow	932	42	74	684	32	89

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	932	0	1421	466
Stage 1	-	-	-	-	932	-
Stage 2	-	-	-	-	489	-
Critical Hdwy	-	-	4.28	-	6.88	7.22
Critical Hdwy Stg 1	-	-	-	-	5.88	-
Critical Hdwy Stg 2	-	-	-	-	5.88	-
Follow-up Hdwy	-	-	2.29	-	3.54	3.46
Pot Cap-1 Maneuver	-	-	688	-	125	507
Stage 1	-	-	-	-	339	-
Stage 2	-	-	-	-	576	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	688	-	112	507
Mov Cap-2 Maneuver	-	-	-	-	235	-
Stage 1	-	-	-	-	339	-
Stage 2	-	-	-	-	514	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	18.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	389	-	-	688	-
HCM Lane V/C Ratio	0.311	-	-	0.107	-
HCM Control Delay (s)	18.4	-	-	10.9	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	1.3	-	-	0.4	-

Intersection	
Int Delay, s/veh	10.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	15	450	335	200	245	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	None
Storage Length	200	-	-	1	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	8	4	7	3	3	0
Mvmt Flow	15	459	342	204	250	15

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	342	0	-	0	832	342
Stage 1	-	-	-	-	342	-
Stage 2	-	-	-	-	490	-
Critical Hdwy	4.18	-	-	-	6.43	6.2
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.272	-	-	-	3.527	3.3
Pot Cap-1 Maneuver	1184	-	-	0	338	705
Stage 1	-	-	-	0	717	-
Stage 2	-	-	-	0	614	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	1184	-	-	-	334	705
Mov Cap-2 Maneuver	-	-	-	-	334	-
Stage 1	-	-	-	-	717	-
Stage 2	-	-	-	-	606	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	43.2
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	SBLn1
Capacity (veh/h)	1184	-	-	344
HCM Lane V/C Ratio	0.013	-	-	0.771
HCM Control Delay (s)	8.1	-	-	43.2
HCM Lane LOS	A	-	-	E
HCM 95th %tile Q(veh)	0	-	-	6.2

Intersection	
Int Delay, s/veh	6.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	25	170	370	30	335	375
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	Yield	-	None
Storage Length	0	-	-	100	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	9	6	6	9	4	4
Mvmt Flow	26	177	385	31	349	391

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1474	385	0	0	385	0
Stage 1	385	-	-	-	-	-
Stage 2	1089	-	-	-	-	-
Critical Hdwy	6.49	6.26	-	-	4.14	-
Critical Hdwy Stg 1	5.49	-	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-	-
Follow-up Hdwy	3.581	3.354	-	-	2.236	-
Pot Cap-1 Maneuver	134	654	-	-	1163	-
Stage 1	673	-	-	-	-	-
Stage 2	313	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	94	654	-	-	1163	-
Mov Cap-2 Maneuver	94	-	-	-	-	-
Stage 1	673	-	-	-	-	-
Stage 2	219	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	25.8	0	4.4
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	371	1163	-
HCM Lane V/C Ratio	-	-	0.548	0.3	-
HCM Control Delay (s)	-	-	25.8	9.4	-
HCM Lane LOS	-	-	D	A	-
HCM 95th %tile Q(veh)	-	-	3.2	1.3	-

Intersection	
Int Delay, s/veh	5.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	25	15	105	55	10	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Yield
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	12	25	11	12	25	12
Mvmt Flow	28	17	117	61	11	78

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	44	0	330	36
Stage 1	-	-	-	-	36	-
Stage 2	-	-	-	-	294	-
Critical Hdwy	-	-	4.21	-	6.65	6.32
Critical Hdwy Stg 1	-	-	-	-	5.65	-
Critical Hdwy Stg 2	-	-	-	-	5.65	-
Follow-up Hdwy	-	-	2.299	-	3.725	3.408
Pot Cap-1 Maneuver	-	-	1508	-	620	1009
Stage 1	-	-	-	-	930	-
Stage 2	-	-	-	-	707	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1508	-	570	1009
Mov Cap-2 Maneuver	-	-	-	-	570	-
Stage 1	-	-	-	-	930	-
Stage 2	-	-	-	-	650	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5	8.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1153	-	-	1508	-
HCM Lane V/C Ratio	0.077	-	-	0.077	-
HCM Control Delay (s)	8.4	-	-	7.6	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.3	-

Intersection	
Int Delay, s/veh	4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	170	5	180	195	10	95
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	15	50	12	16	12	14
Mvmt Flow	189	6	200	217	11	106

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	194	0	809	192
Stage 1	-	-	-	-	192	-
Stage 2	-	-	-	-	617	-
Critical Hdwy	-	-	4.22	-	6.52	6.34
Critical Hdwy Stg 1	-	-	-	-	5.52	-
Critical Hdwy Stg 2	-	-	-	-	5.52	-
Follow-up Hdwy	-	-	2.308	-	3.608	3.426
Pot Cap-1 Maneuver	-	-	1321	-	336	820
Stage 1	-	-	-	-	817	-
Stage 2	-	-	-	-	519	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1321	-	278	820
Mov Cap-2 Maneuver	-	-	-	-	278	-
Stage 1	-	-	-	-	817	-
Stage 2	-	-	-	-	430	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.9	11.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	692	-	-	1321	-
HCM Lane V/C Ratio	0.169	-	-	0.151	-
HCM Control Delay (s)	11.3	-	-	8.2	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0.5	-

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	150	5	120	150	10	5	5	85	10	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	12	0	5	7	0	0	0	10	0	0	0
Mvmt Flow	0	165	5	132	165	11	5	5	93	11	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	177	0	0	171	0	0	607	610	169	653	606	171
Stage 1	-	-	-	-	-	-	169	169	-	435	435	-
Stage 2	-	-	-	-	-	-	438	441	-	218	171	-
Critical Hdwy	4.1	-	-	4.15	-	-	7.1	6.5	6.3	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.245	-	-	3.5	4	3.39	3.5	4	3.3
Pot Cap-1 Maneuver	1411	-	-	1388	-	-	411	412	855	383	414	878
Stage 1	-	-	-	-	-	-	838	763	-	604	584	-
Stage 2	-	-	-	-	-	-	601	580	-	789	761	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1411	-	-	1388	-	-	375	368	854	310	369	877
Mov Cap-2 Maneuver	-	-	-	-	-	-	375	368	-	310	369	-
Stage 1	-	-	-	-	-	-	837	762	-	603	522	-
Stage 2	-	-	-	-	-	-	534	518	-	698	760	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	3.4	10.6	14.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	751	1411	-	-	1388	-	-	395
HCM Lane V/C Ratio	0.139	-	-	-	0.095	-	-	0.042
HCM Control Delay (s)	10.6	0	-	-	7.9	0	-	14.5
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0	-	-	0.3	-	-	0.1

Intersection	
Int Delay, s/veh	3.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	5	130	245	5	105	275
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	33	6	9	0	9	6
Mvmt Flow	6	149	282	6	121	316

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	841	284	0	0	287	0
Stage 1	284	-	-	-	-	-
Stage 2	557	-	-	-	-	-
Critical Hdwy	6.73	6.26	-	-	4.19	-
Critical Hdwy Stg 1	5.73	-	-	-	-	-
Critical Hdwy Stg 2	5.73	-	-	-	-	-
Follow-up Hdwy	3.797	3.354	-	-	2.281	-
Pot Cap-1 Maneuver	297	746	-	-	1236	-
Stage 1	698	-	-	-	-	-
Stage 2	517	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	262	746	-	-	1236	-
Mov Cap-2 Maneuver	262	-	-	-	-	-
Stage 1	698	-	-	-	-	-
Stage 2	455	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.6	0	2.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	698	1236	-
HCM Lane V/C Ratio	-	-	0.222	0.098	-
HCM Control Delay (s)	-	-	11.6	8.2	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.8	0.3	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SEL	SER
Vol, veh/h	5	120	120	10	10	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	84	84
Heavy Vehicles, %	0	25	17	0	25	0
Mvmt Flow	6	141	141	12	12	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	153	0	-	0	300	147
Stage 1	-	-	-	-	147	-
Stage 2	-	-	-	-	153	-
Critical Hdwy	4.1	-	-	-	6.65	6.2
Critical Hdwy Stg 1	-	-	-	-	5.65	-
Critical Hdwy Stg 2	-	-	-	-	5.65	-
Follow-up Hdwy	2.2	-	-	-	3.725	3.3
Pot Cap-1 Maneuver	1440	-	-	-	646	905
Stage 1	-	-	-	-	827	-
Stage 2	-	-	-	-	822	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1440	-	-	-	643	905
Mov Cap-2 Maneuver	-	-	-	-	643	-
Stage 1	-	-	-	-	827	-
Stage 2	-	-	-	-	818	-

Approach	EB	WB	SE
HCM Control Delay, s	0.3	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	1440	-	-	-	643
HCM Lane V/C Ratio	0.004	-	-	-	0.019
HCM Control Delay (s)	7.5	0	-	-	10.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	290	2075	1245	30	10	190
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	350	-	-	-	0	200
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	5	7	19	0	4
Mvmt Flow	305	2184	1311	32	11	200

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1342	0	-	0	3029	671
Stage 1	-	-	-	-	1326	-
Stage 2	-	-	-	-	1703	-
Critical Hdwy	4.14	-	-	-	6.8	6.98
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.22	-	-	-	3.5	3.34
Pot Cap-1 Maneuver	509	-	-	-	~ 10	394
Stage 1	-	-	-	-	216	-
Stage 2	-	-	-	-	135	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	509	-	-	-	~ 4	394
Mov Cap-2 Maneuver	-	-	-	-	41	-
Stage 1	-	-	-	-	216	-
Stage 2	-	-	-	-	54	-

Approach	EB	WB	SB
HCM Control Delay, s	2.7	0	28.1
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	509	-	-	-	41	394
HCM Lane V/C Ratio	0.6	-	-	-	0.257	0.508
HCM Control Delay (s)	22.1	-	-	-	120.8	23.2
HCM Lane LOS	C	-	-	-	F	C
HCM 95th %tile Q(veh)	3.9	-	-	-	0.8	2.8

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	2365	10	20	1415	5	10
Conflicting Peds, #/hr	0	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	175	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	5	0	7	6	0	0
Mvmt Flow	2489	11	21	1489	5	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2501	0	3283	1251
Stage 1	-	-	-	-	2496	-
Stage 2	-	-	-	-	787	-
Critical Hdwy	-	-	4.24	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.27	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	166	-	7	167
Stage 1	-	-	-	-	49	-
Stage 2	-	-	-	-	414	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	166	-	6	167
Mov Cap-2 Maneuver	-	-	-	-	40	-
Stage 1	-	-	-	-	49	-
Stage 2	-	-	-	-	362	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	59.9
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	81	-	-	166	-
HCM Lane V/C Ratio	0.195	-	-	0.127	-
HCM Control Delay (s)	59.9	-	-	29.8	-
HCM Lane LOS	F	-	-	D	-
HCM 95th %tile Q(veh)	0.7	-	-	0.4	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	2235	440	50	1515	10	255	5	70	10	5	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.95	0.95			1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	0.99			0.98	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.93			0.90	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.97			0.99	
Satd. Flow (prot)	1671	3471	1520	1752	3403		1665	1537			1656	
Flt Permitted	0.09	1.00	1.00	0.09	1.00		0.95	0.97			0.90	
Satd. Flow (perm)	153	3471	1520	160	3403		1665	1537			1508	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	16	2353	463	53	1595	11	268	5	74	11	5	42
RTOR Reduction (vph)	0	0	188	0	0	0	0	32	0	0	38	0
Lane Group Flow (vph)	16	2353	275	53	1606	0	177	138	0	0	20	0
Confl. Peds. (#/hr)	1					1			6	6		
Confl. Bikes (#/hr)			2			1			2			8
Heavy Vehicles (%)	8%	4%	4%	3%	6%	0%	3%	100%	3%	0%	0%	0%
Turn Type	Perm	NA	Perm	Perm	NA		Split	NA		Perm	NA	
Protected Phases		4			8		2	2			6	
Permitted Phases	4		4	8						6		
Actuated Green, G (s)	46.1	46.1	46.1	46.1	46.1		12.8	12.8			6.8	
Effective Green, g (s)	46.1	46.1	46.1	46.1	46.1		12.8	12.8			6.8	
Actuated g/C Ratio	0.59	0.59	0.59	0.59	0.59		0.16	0.16			0.09	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	90	2059	901	94	2019		274	253			131	
v/s Ratio Prot		c0.68			0.47		c0.11	0.09				
v/s Ratio Perm	0.10		0.18	0.33							c0.01	
v/c Ratio	0.18	1.14	0.30	0.56	0.80		0.65	0.55			0.15	
Uniform Delay, d1	7.2	15.8	7.8	9.7	12.2		30.3	29.8			32.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.9	70.6	0.2	7.5	2.3		5.2	2.4			0.5	
Delay (s)	8.1	86.4	8.0	17.2	14.4		35.5	32.2			33.3	
Level of Service	A	F	A	B	B		D	C			C	
Approach Delay (s)		73.2			14.5			33.9			33.3	
Approach LOS		E			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	50.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	77.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	84.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	100	2265	1460	10	0	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	None
Storage Length	275	-	-	150	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	6	6	25	0	4
Mvmt Flow	105	2384	1537	11	0	63

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1537	0	-	0	2940	768
Stage 1	-	-	-	-	1537	-
Stage 2	-	-	-	-	1403	-
Critical Hdwy	4.12	-	-	-	6.8	6.98
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.21	-	-	-	3.5	3.34
Pot Cap-1 Maneuver	433	-	-	0	12	340
Stage 1	-	-	-	0	167	-
Stage 2	-	-	-	0	197	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	433	-	-	-	9	340
Mov Cap-2 Maneuver	-	-	-	-	76	-
Stage 1	-	-	-	-	167	-
Stage 2	-	-	-	-	149	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	18
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	SBLn1
Capacity (veh/h)	433	-	-	340
HCM Lane V/C Ratio	0.243	-	-	0.186
HCM Control Delay (s)	16	-	-	18
HCM Lane LOS	C	-	-	C
HCM 95th %tile Q(veh)	0.9	-	-	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	1120	60	10	565	110	30	30	25	150	35	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.93		1.00	0.91	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1641	3505	1538	1583	3312	1553	1703	1661		1787	1613	
Flt Permitted	0.43	1.00	1.00	0.27	1.00	1.00	0.70	1.00		0.72	1.00	
Satd. Flow (perm)	738	3505	1538	444	3312	1553	1252	1661		1353	1613	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	42	1179	63	11	595	116	32	32	26	158	37	53
RTOR Reduction (vph)	0	0	33	0	0	61	0	14	0	0	38	0
Lane Group Flow (vph)	42	1179	30	11	595	55	32	44	0	158	52	0
Heavy Vehicles (%)	10%	3%	5%	14%	9%	4%	6%	4%	10%	1%	8%	7%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	15.0	15.0	15.0	15.0	15.0	15.0	8.9	8.9		8.9	8.9	
Effective Green, g (s)	15.0	15.0	15.0	15.0	15.0	15.0	8.9	8.9		8.9	8.9	
Actuated g/C Ratio	0.47	0.47	0.47	0.47	0.47	0.47	0.28	0.28		0.28	0.28	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	347	1648	723	208	1557	730	349	463		377	450	
v/s Ratio Prot		c0.34			0.18			0.03			0.03	
v/s Ratio Perm	0.06		0.02	0.02		0.04	0.03			c0.12		
v/c Ratio	0.12	0.72	0.04	0.05	0.38	0.07	0.09	0.09		0.42	0.12	
Uniform Delay, d1	4.7	6.7	4.6	4.6	5.5	4.6	8.5	8.5		9.4	8.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.2	1.5	0.0	0.1	0.2	0.0	0.1	0.1		0.8	0.1	
Delay (s)	4.9	8.2	4.6	4.7	5.6	4.7	8.6	8.6		10.1	8.7	
Level of Service	A	A	A	A	A	A	A	A		B	A	
Approach Delay (s)		8.0			5.5			8.6			9.6	
Approach LOS		A			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	7.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	31.9	Sum of lost time (s)	8.0
Intersection Capacity Utilization	54.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	3.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	195	55	60	110	30	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	50	300	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	4	2	7	8	3	4
Mvmt Flow	217	61	67	122	33	83

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	217	0	473	217
Stage 1	-	-	-	-	217	-
Stage 2	-	-	-	-	256	-
Critical Hdwy	-	-	4.17	-	6.43	6.24
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.263	-	3.527	3.336
Pot Cap-1 Maneuver	-	-	1324	-	548	818
Stage 1	-	-	-	-	817	-
Stage 2	-	-	-	-	784	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1324	-	520	818
Mov Cap-2 Maneuver	-	-	-	-	520	-
Stage 1	-	-	-	-	817	-
Stage 2	-	-	-	-	744	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.8	11.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	703	-	-	1324	-
HCM Lane V/C Ratio	0.166	-	-	0.05	-
HCM Control Delay (s)	11.1	-	-	7.9	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.6	-	-	0.2	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	5	245	120	15	10	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	4	7	6	14	0
Mvmt Flow	6	272	133	17	11	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	150	0	-	0	425	142
Stage 1	-	-	-	-	142	-
Stage 2	-	-	-	-	283	-
Critical Hdwy	4.1	-	-	-	6.54	6.2
Critical Hdwy Stg 1	-	-	-	-	5.54	-
Critical Hdwy Stg 2	-	-	-	-	5.54	-
Follow-up Hdwy	2.2	-	-	-	3.626	3.3
Pot Cap-1 Maneuver	1444	-	-	-	564	911
Stage 1	-	-	-	-	856	-
Stage 2	-	-	-	-	738	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1444	-	-	-	561	911
Mov Cap-2 Maneuver	-	-	-	-	561	-
Stage 1	-	-	-	-	856	-
Stage 2	-	-	-	-	734	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1444	-	-	-	643
HCM Lane V/C Ratio	0.004	-	-	-	0.026
HCM Control Delay (s)	7.5	0	-	-	10.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	45	5	180	80	0	125
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	0	5	4	0	11
Mvmt Flow	50	6	200	89	0	139

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	383	244	0	0	289	0
Stage 1	244	-	-	-	-	-
Stage 2	139	-	-	-	-	-
Critical Hdwy	6.45	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	614	800	-	-	1284	-
Stage 1	790	-	-	-	-	-
Stage 2	880	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	614	800	-	-	1284	-
Mov Cap-2 Maneuver	614	-	-	-	-	-
Stage 1	790	-	-	-	-	-
Stage 2	880	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	629	1284	-
HCM Lane V/C Ratio	-	-	0.088	-	-
HCM Control Delay (s)	-	-	11.3	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Intersection	
Int Delay, s/veh	4.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	55	10	15	45	20	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	14	0	9	11	0	0
Mvmt Flow	61	11	17	50	22	17

Major/Minor	Major2		Major1		Minor2	
Conflicting Flow All	67	-	0	0	42	195
Stage 1	-	-	-	-	0	128
Stage 2	-	-	-	-	42	67
Critical Hdwy	4.24	-	-	-	6.4	6.5
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	5.4	5.5
Follow-up Hdwy	2.326	-	-	-	3.5	4
Pot Cap-1 Maneuver	1461	-	-	-	974	704
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	986	843
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1461	-	-	-	933	0
Mov Cap-2 Maneuver	-	-	-	-	933	0
Stage 1	-	-	-	-	-	0
Stage 2	-	-	-	-	986	0

Approach	WB	NB	SB
HCM Control Delay, s	6.4	0	9
HCM LOS			A

Minor Lane/Major Mvmt	NBT	NBR	WBL	WBR	SBLn1
Capacity (veh/h)	-	-	1461	-	933
HCM Lane V/C Ratio	-	-	0.042	-	0.024
HCM Control Delay (s)	-	-	7.6	-	9
HCM Lane LOS	-	-	A	-	A
HCM 95th %tile Q(veh)	-	-	0.1	-	0.1

Intersection												
Int Delay, s/veh	7.1											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	15	40	25	35	40	0	25	50	35	10	55	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	31	10	4	14	16	0	0	4	6	0	8	12
Mvmt Flow	16	43	27	38	43	0	27	54	38	11	59	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	43	0	0	70	0	0	242	207	56	252	220	43
Stage 1	-	-	-	-	-	-	89	89	-	118	118	-
Stage 2	-	-	-	-	-	-	153	118	-	134	102	-
Critical Hdwy	4.41	-	-	4.24	-	-	7.1	6.54	6.26	7.1	6.58	6.32
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.54	-	6.1	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.54	-	6.1	5.58	-
Follow-up Hdwy	2.479	-	-	2.326	-	-	3.5	4.036	3.354	3.5	4.072	3.408
Pot Cap-1 Maneuver	1398	-	-	1458	-	-	716	686	999	706	668	1000
Stage 1	-	-	-	-	-	-	923	817	-	891	787	-
Stage 2	-	-	-	-	-	-	854	794	-	874	799	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1398	-	-	1458	-	-	639	659	999	618	642	1000
Mov Cap-2 Maneuver	-	-	-	-	-	-	639	659	-	618	642	-
Stage 1	-	-	-	-	-	-	912	807	-	880	766	-
Stage 2	-	-	-	-	-	-	759	773	-	776	789	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	3.5	10.9	11.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	733	1398	-	-	1458	-	-	671
HCM Lane V/C Ratio	0.161	0.012	-	-	0.026	-	-	0.12
HCM Control Delay (s)	10.9	7.6	0	-	7.5	0	-	11.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.6	0	-	-	0.1	-	-	0.4

Intersection	
Int Delay, s/veh	2.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	125	20	35	100	10	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	9	6	11	11	20	20
Mvmt Flow	147	24	41	118	12	59

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	171	0	359	159
Stage 1	-	-	-	-	159	-
Stage 2	-	-	-	-	200	-
Critical Hdwy	-	-	4.21	-	6.6	6.4
Critical Hdwy Stg 1	-	-	-	-	5.6	-
Critical Hdwy Stg 2	-	-	-	-	5.6	-
Follow-up Hdwy	-	-	2.299	-	3.68	3.48
Pot Cap-1 Maneuver	-	-	1353	-	605	841
Stage 1	-	-	-	-	828	-
Stage 2	-	-	-	-	792	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1353	-	586	841
Mov Cap-2 Maneuver	-	-	-	-	586	-
Stage 1	-	-	-	-	828	-
Stage 2	-	-	-	-	767	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2	10
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	784	-	-	1353	-
HCM Lane V/C Ratio	0.09	-	-	0.03	-
HCM Control Delay (s)	10	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	175	20	20	155	5	30
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Yield	-	None	-	None
Storage Length	-	50	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	12	13	4	9	0	11
Mvmt Flow	184	21	21	163	5	32

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	184	0	389	185
Stage 1	-	-	-	-	184	-
Stage 2	-	-	-	-	205	-
Critical Hdwy	-	-	4.14	-	6.4	6.31
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.236	-	3.5	3.399
Pot Cap-1 Maneuver	-	-	1379	-	619	835
Stage 1	-	-	-	-	852	-
Stage 2	-	-	-	-	834	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1378	-	608	834
Mov Cap-2 Maneuver	-	-	-	-	608	-
Stage 1	-	-	-	-	852	-
Stage 2	-	-	-	-	819	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	9.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	792	-	-	1378	-
HCM Lane V/C Ratio	0.047	-	-	0.015	-
HCM Control Delay (s)	9.8	-	-	7.7	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	5	180	5	5	5	100	385	10	5	405	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	-	-	-	-	300	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	2	0	50	0	3	6	0	0	4	0
Mvmt Flow	5	5	189	5	5	5	105	405	11	5	426	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1058	1053	426	1150	1053	405	426	0	0	405	0	0
Stage 1	437	437	-	616	616	-	-	-	-	-	-	-
Stage 2	621	616	-	534	437	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.22	7.1	7	6.2	4.13	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	6	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.318	3.5	4.45	3.3	2.227	-	-	2.2	-	-
Pot Cap-1 Maneuver	204	228	628	177	187	650	1128	-	-	1165	-	-
Stage 1	602	583	-	481	414	-	-	-	-	-	-	-
Stage 2	478	485	-	534	505	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	183	206	628	112	169	650	1128	-	-	1165	-	-
Mov Cap-2 Maneuver	183	206	-	112	169	-	-	-	-	-	-	-
Stage 1	546	580	-	436	375	-	-	-	-	-	-	-
Stage 2	424	440	-	368	503	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.9	26.5	1.7	0.1
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1128	-	-	562	183	1165	-	-
HCM Lane V/C Ratio	0.093	-	-	0.356	0.086	0.005	-	-
HCM Control Delay (s)	8.5	-	-	14.9	26.5	8.1	-	-
HCM Lane LOS	A	-	-	B	D	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	1.6	0.3	0	-	-

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	75	60	40	30	15	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	4	0	7	7	7
Mvmt Flow	83	67	44	33	17	67

Major/Minor	Major1		Minor1		Major2	
Conflicting Flow All	67	0	333	67	67	-
Stage 1	-	-	233	-	-	-
Stage 2	-	-	100	-	-	-
Critical Hdwy	-	-	6.5	6.27	4.17	-
Critical Hdwy Stg 1	-	-	5.5	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	4	3.363	2.263	-
Pot Cap-1 Maneuver	-	-	590	983	1503	-
Stage 1	-	-	716	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-				-
Mov Cap-1 Maneuver	-	-	0	983	1503	-
Mov Cap-2 Maneuver	-	-	0	-	-	-
Stage 1	-	-	0	-	-	-
Stage 2	-	-	0	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s		9	1.5
HCM LOS		A	

Minor Lane/Major Mvmt	EBL	EBT	WBLn1	SBL	SBR
Capacity (veh/h)	-	-	983	1503	-
HCM Lane V/C Ratio	-	-	0.079	0.011	-
HCM Control Delay (s)	-	-	9	7.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Intersection	
Int Delay, s/veh	5.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	45	10	65	40	10	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	14	8	0	0	5
Mvmt Flow	48	11	69	43	11	96

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	59	0	234	53
Stage 1	-	-	-	-	53	-
Stage 2	-	-	-	-	181	-
Critical Hdwy	-	-	4.18	-	6.4	6.25
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.272	-	3.5	3.345
Pot Cap-1 Maneuver	-	-	1507	-	759	1006
Stage 1	-	-	-	-	975	-
Stage 2	-	-	-	-	855	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1507	-	723	1006
Mov Cap-2 Maneuver	-	-	-	-	723	-
Stage 1	-	-	-	-	975	-
Stage 2	-	-	-	-	815	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.6	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	968	-	-	1507	-
HCM Lane V/C Ratio	0.11	-	-	0.046	-
HCM Control Delay (s)	9.2	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

Intersection						
Int Delay, s/veh	3.1					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	75	15	110	110	40	95
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	7	8	5	5	0	9
Mvmt Flow	84	17	124	124	45	107

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	382	186	0	0	247	0
Stage 1	185	-	-	-	-	-
Stage 2	197	-	-	-	-	-
Critical Hdwy	6.47	6.28	-	-	4.1	-
Critical Hdwy Stg 1	5.47	-	-	-	-	-
Critical Hdwy Stg 2	5.47	-	-	-	-	-
Follow-up Hdwy	3.563	3.372	-	-	2.2	-
Pot Cap-1 Maneuver	611	841	-	-	1331	-
Stage 1	835	-	-	-	-	-
Stage 2	824	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	589	840	-	-	1330	-
Mov Cap-2 Maneuver	589	-	-	-	-	-
Stage 1	835	-	-	-	-	-
Stage 2	794	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.9	0	2.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	620	1330	-
HCM Lane V/C Ratio	-	-	0.163	0.034	-
HCM Control Delay (s)	-	-	11.9	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0.1	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	15	85	45	0	5	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	7	7	6	0	0	0
Mvmt Flow	18	100	53	0	6	12

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	53	0	-	0	188	53
Stage 1	-	-	-	-	53	-
Stage 2	-	-	-	-	135	-
Critical Hdwy	4.17	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.263	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1521	-	-	-	806	1020
Stage 1	-	-	-	-	975	-
Stage 2	-	-	-	-	896	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1521	-	-	-	796	1020
Mov Cap-2 Maneuver	-	-	-	-	796	-
Stage 1	-	-	-	-	975	-
Stage 2	-	-	-	-	884	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1521	-	-	-	933
HCM Lane V/C Ratio	0.012	-	-	-	0.019
HCM Control Delay (s)	7.4	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	90	40	10	35	15	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	6	6	10	3	17	14
Mvmt Flow	106	47	12	41	18	24

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	153	0	194	129
Stage 1	-	-	-	-	129	-
Stage 2	-	-	-	-	65	-
Critical Hdwy	-	-	4.2	-	6.57	6.34
Critical Hdwy Stg 1	-	-	-	-	5.57	-
Critical Hdwy Stg 2	-	-	-	-	5.57	-
Follow-up Hdwy	-	-	2.29	-	3.653	3.426
Pot Cap-1 Maneuver	-	-	1380	-	762	890
Stage 1	-	-	-	-	861	-
Stage 2	-	-	-	-	921	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1380	-	755	890
Mov Cap-2 Maneuver	-	-	-	-	755	-
Stage 1	-	-	-	-	861	-
Stage 2	-	-	-	-	913	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.7	9.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	827	-	-	1380	-
HCM Lane V/C Ratio	0.05	-	-	0.009	-
HCM Control Delay (s)	9.6	-	-	7.6	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	5	70	20	5	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	4	14	0	0	0
Mvmt Flow	6	82	24	6	0	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	29	0	-	0	120	26
Stage 1	-	-	-	-	26	-
Stage 2	-	-	-	-	94	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1597	-	-	-	880	1056
Stage 1	-	-	-	-	1002	-
Stage 2	-	-	-	-	935	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1597	-	-	-	876	1056
Mov Cap-2 Maneuver	-	-	-	-	876	-
Stage 1	-	-	-	-	1002	-
Stage 2	-	-	-	-	931	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	8.4
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1597	-	-	-	1056
HCM Lane V/C Ratio	0.004	-	-	-	0.006
HCM Control Delay (s)	7.3	0	-	-	8.4
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	5	0	5	0	35	5	75	5	45	75	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	6	0	7	0	6	1	0
Mvmt Flow	6	6	0	6	0	40	6	86	6	52	86	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	314	296	89	296	296	89	92	0	0	92	0	0
Stage 1	193	193	-	101	101	-	-	-	-	-	-	-
Stage 2	121	103	-	195	195	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.26	4.1	-	-	4.16	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.354	2.2	-	-	2.254	-	-
Pot Cap-1 Maneuver	643	619	975	660	619	958	1515	-	-	1478	-	-
Stage 1	813	745	-	910	815	-	-	-	-	-	-	-
Stage 2	888	814	-	811	743	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	597	594	975	635	594	958	1515	-	-	1478	-	-
Mov Cap-2 Maneuver	597	594	-	635	594	-	-	-	-	-	-	-
Stage 1	810	717	-	906	812	-	-	-	-	-	-	-
Stage 2	847	811	-	775	716	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.2	9.2	0.4	2.7
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1515	-	-	595	901	1478	-	-
HCM Lane V/C Ratio	0.004	-	-	0.019	0.051	0.035	-	-
HCM Control Delay (s)	7.4	0	-	11.2	9.2	7.5	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	20	40	10	0	10	15	10	35	5	20	45	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	14	0	0	0	0	0	0	12	0	12	13	5
Mvmt Flow	22	45	11	0	11	17	11	39	6	22	51	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	28	0	0	56	0	0	152	124	51	138	121	20
Stage 1	-	-	-	-	-	-	96	96	-	20	20	-
Stage 2	-	-	-	-	-	-	56	28	-	118	101	-
Critical Hdwy	4.24	-	-	4.1	-	-	7.1	6.62	6.2	7.22	6.63	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.62	-	6.22	5.63	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.62	-	6.22	5.63	-
Follow-up Hdwy	2.326	-	-	2.2	-	-	3.5	4.108	3.3	3.608	4.117	3.345
Pot Cap-1 Maneuver	1511	-	-	1562	-	-	820	748	1023	810	749	1049
Stage 1	-	-	-	-	-	-	916	796	-	974	857	-
Stage 2	-	-	-	-	-	-	961	852	-	863	791	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1511	-	-	1562	-	-	752	737	1023	764	738	1049
Mov Cap-2 Maneuver	-	-	-	-	-	-	752	737	-	764	738	-
Stage 1	-	-	-	-	-	-	902	784	-	959	857	-
Stage 2	-	-	-	-	-	-	885	852	-	803	779	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.1	0	10.1	10.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	761	1511	-	-	1562	-	-	800
HCM Lane V/C Ratio	0.074	0.015	-	-	-	-	-	0.119
HCM Control Delay (s)	10.1	7.4	0	-	0	-	-	10.1
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.4

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	105	495	370	5	5	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	170	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	6	6	6	33	0	8
Mvmt Flow	111	521	389	5	5	63

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	395	0	-	0	1134	392
Stage 1	-	-	-	-	392	-
Stage 2	-	-	-	-	742	-
Critical Hdwy	4.16	-	-	-	6.4	6.28
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.254	-	-	-	3.5	3.372
Pot Cap-1 Maneuver	1142	-	-	-	226	644
Stage 1	-	-	-	-	687	-
Stage 2	-	-	-	-	474	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1142	-	-	-	204	644
Mov Cap-2 Maneuver	-	-	-	-	204	-
Stage 1	-	-	-	-	687	-
Stage 2	-	-	-	-	428	-

Approach	EB	WB	SB
HCM Control Delay, s	1.5	0	12.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1142	-	-	-	552
HCM Lane V/C Ratio	0.097	-	-	-	0.124
HCM Control Delay (s)	8.5	-	-	-	12.4
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.4

Intersection	
Int Delay, s/veh	5.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	40	115	15	10	105	15	10	80	15	10	40	55
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	4	0	10	6	0	20	7	0	11	9	0
Mvmt Flow	43	125	16	11	114	16	11	87	16	11	43	60

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	130	0	0	141	0	0	416	372	133	416	372	122
Stage 1	-	-	-	-	-	-	220	220	-	144	144	-
Stage 2	-	-	-	-	-	-	196	152	-	272	228	-
Critical Hdwy	4.13	-	-	4.2	-	-	7.3	6.57	6.2	7.21	6.59	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.3	5.57	-	6.21	5.59	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.3	5.57	-	6.21	5.59	-
Follow-up Hdwy	2.227	-	-	2.29	-	-	3.68	4.063	3.3	3.599	4.081	3.3
Pot Cap-1 Maneuver	1449	-	-	1394	-	-	517	550	922	531	547	935
Stage 1	-	-	-	-	-	-	743	712	-	838	765	-
Stage 2	-	-	-	-	-	-	766	762	-	715	703	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1449	-	-	1394	-	-	439	528	922	442	525	935
Mov Cap-2 Maneuver	-	-	-	-	-	-	439	528	-	442	525	-
Stage 1	-	-	-	-	-	-	719	689	-	811	758	-
Stage 2	-	-	-	-	-	-	670	755	-	594	681	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.8	0.6	13.2	11.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	551	1449	-	-	1394	-	-	666
HCM Lane V/C Ratio	0.207	0.03	-	-	0.008	-	-	0.171
HCM Control Delay (s)	13.2	7.6	0	-	7.6	0	-	11.5
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.8	0.1	-	-	0	-	-	0.6

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	605	40	85	365	20	20	10	105	10	10	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	280	-	270	150	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	2	0	3	4	0	7	11	6	0	0	0
Mvmt Flow	6	672	44	94	406	22	22	11	117	11	11	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	428	0	0	672	0	0	1294	1300	672	1353	1289	417
Stage 1	-	-	-	-	-	-	683	683	-	606	606	-
Stage 2	-	-	-	-	-	-	611	617	-	747	683	-
Critical Hdwy	4.1	-	-	4.13	-	-	7.17	6.61	6.26	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.17	5.61	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.17	5.61	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.227	-	-	3.563	4.099	3.354	3.5	4	3.3
Pot Cap-1 Maneuver	1142	-	-	914	-	-	136	155	449	128	165	640
Stage 1	-	-	-	-	-	-	431	436	-	487	490	-
Stage 2	-	-	-	-	-	-	473	467	-	408	452	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1142	-	-	914	-	-	118	138	449	82	147	640
Mov Cap-2 Maneuver	-	-	-	-	-	-	118	138	-	82	147	-
Stage 1	-	-	-	-	-	-	429	434	-	484	440	-
Stage 2	-	-	-	-	-	-	414	419	-	293	450	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.7	31	48.3
HCM LOS			D	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	284	1142	-	-	914	-	-	105
HCM Lane V/C Ratio	0.528	0.005	-	-	0.103	-	-	0.212
HCM Control Delay (s)	31	8.2	-	-	9.4	-	-	48.3
HCM Lane LOS	D	A	-	-	A	-	-	E
HCM 95th %tile Q(veh)	2.9	0	-	-	0.3	-	-	0.8

Intersection	
Int Delay, s/veh	7.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	35	70	15	90	50	0	15	30	40	0	45	75
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	11	11	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	8	7	0	8	7	0	0	12	11	0	5	2
Mvmt Flow	41	82	18	106	59	0	18	35	47	0	53	88

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	70	0	0	111	0	0	537	467	103	508	475	71
Stage 1	-	-	-	-	-	-	185	185	-	282	282	-
Stage 2	-	-	-	-	-	-	352	282	-	226	193	-
Critical Hdwy	4.18	-	-	4.18	-	-	7.1	6.62	6.31	7.1	6.55	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.62	-	6.1	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.62	-	6.1	5.55	-
Follow-up Hdwy	2.272	-	-	2.272	-	-	3.5	4.108	3.399	3.5	4.045	3.318
Pot Cap-1 Maneuver	1493	-	-	1442	-	-	458	479	928	479	484	991
Stage 1	-	-	-	-	-	-	821	728	-	729	672	-
Stage 2	-	-	-	-	-	-	669	660	-	781	735	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1492	-	-	1441	-	-	345	422	919	388	426	981
Mov Cap-2 Maneuver	-	-	-	-	-	-	345	422	-	388	426	-
Stage 1	-	-	-	-	-	-	790	700	-	701	615	-
Stage 2	-	-	-	-	-	-	514	604	-	683	707	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.2	4.9	13.2	11.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	538	1492	-	-	1441	-	-	659
HCM Lane V/C Ratio	0.186	0.028	-	-	0.073	-	-	0.214
HCM Control Delay (s)	13.2	7.5	0	-	7.7	0	-	11.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.7	0.1	-	-	0.2	-	-	0.8

Appendix B – Study Intersection Future Volume Forecasts

2040 Forecast and Post-Processed Peak Hour Volumes

			Total Vehicle Volumes												PHF
			Northbound			Southbound			Eastbound			Westbound			
#	Intersection	Peak Hr	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	
	Future 2040 PM [30th Highest Hour Volumes] (Committed Improvements)														
01	Denny School Rd--Hwy 34	4:30 PM	475	0	5	0	0	0	0	455	900	15	350	0	0.95
02	Denny School Rd--Oak St/Hayden Dr	4:30 PM	0	345	30	165	735	5	5	5	0	5	5	130	0.88
03	Cascade Dr and Crowfoot Rd*	3:30 PM	15	5	5	20	25	0	0	90	40	30	85	30	0.85
04	Crowfoot Rd--Hwy 20/Santiam Hwy	3:30 PM	35	0	95	0	0	0	0	1015	45	80	750	0	0.95
05	Knox Butte Rd--Hwy 20/Santiam Hwy	4:15 PM	0	0	0	280	0	20	20	515	0	0	385	230	0.98
06	Hwy 20/Santiam Hwy--OR 226	4:15 PM	0	425	35	385	430	0	0	0	0	30	0	195	0.96
07	OR 126/McKenzie Hwy--Hwy 20	3:35 PM	15	0	105	0	0	0	0	40	20	160	80	0	0.90
08	OR 126--US 20/OR 22/Santiam Hwy Junction	3:35 PM	15	0	140	0	0	0	0	255	10	275	295	0	0.90
09	Stayton-Scio Rd and Cole School Rd	3:55 PM	5	5	95	10	0	5	0	170	5	135	170	10	0.91
10	Stayton-Scio Rd--Kingston-Jordan Rd	3:55 PM	0	285	5	120	320	0	0	0	0	5	0	150	0.87
11	Stayton-Scio Rd--Slangal Dr	4:05 PM	5	0	140	0	0	0	0	10	0	140	10	0	0.85
12	Oakville Rd (North)--OR 34	4:30 PM	0	0	0	10	0	205	310	2205	0	0	1320	35	0.95
13	Oakville Rd (South)--OR 34	4:30 PM	5	0	10	10	0	5	0	2510	10	20	1505	0	0.95
14	Peoria Rd--OR 34	4:30 PM	270	5	75	10	5	40	15	2375	465	55	1610	10	0.95
15	Riverside Dr--OR 34	4:30 PM	0	0	0	0	0	65	105	2405	0	0	1550	10	0.95
16	Seven Mile Ln--OR 34	4:30 PM	35	35	25	175	40	60	45	1290	70	10	650	125	0.95
17	Brewster Rd--OR 226	4:30 PM	35	0	85	0	0	0	0	230	65	70	130	0	0.90
18	Crabtree Dr--OR 226	4:30 PM	0	0	0	10	0	5	5	290	0	0	140	20	0.90
19	OR 226--Fish Hatchery Dr	4:30 PM	0	215	95	0	145	0	0	0	0	50	0	5	0.90
20	OR 226--Kingston-Jordan Rd	4:20 PM	0	15	50	20	15	0	0	0	0	65	0	10	0.90
21	Richardson Gap Rd--Albany-Lyons Hwy (OR 226)	4:20 PM	30	60	40	10	65	10	15	45	30	40	50	0	0.93
22	Brush Creek Rd--OR 228	3:55 PM	15	0	60	0	0	0	0	145	20	40	115	0	0.85
23	Upper Calapooia Dr--OR 228	3:55 PM	5	0	35	0	0	0	0	200	20	25	180	0	0.95
24	US 20/Santiam Hwy--Spicer Dr/Tennessee School Dr	4:25 PM	115	445	10	5	465	5	5	5	210	5	5	5	0.95
25	Berlin Rd--Bellinger Scale Rd	4:10 PM	0	0	0	15	0	70	90	70	0	0	45	35	0.90
26	Waterloo Rd--Berlin Rd	4:50 PM	15	0	105	0	0	0	0	55	10	75	45	0	0.94
27	Brewster Rd--Lacomb Dr	4:20 PM	0	130	130	45	110	0	0	0	0	85	0	15	0.89
28	Shelburn Dr--Jefferson-Scio Dr	5:00 PM	0	0	0	5	0	10	15	100	5	0	55	0	0.85
29	Bellinger Scale Rd--Lacomb Dr	5:20 PM	20	0	25	0	0	0	0	105	45	15	40	0	0.85
30	Oakville Rd--Tangent Dr	3:30 PM	0	0	0	0	0	5	5	85	0	0	25	5	0.85
31	Peoria Rd--American Dr	4:05 PM	5	90	5	55	90	5	5	5	0	5	0	40	0.87
32	Richardson Gap Rd--Fish Hatchery Dr	4:10 PM	10	40	5	20	55	25	25	50	15	0	15	15	0.89
33	Scravel Hill Rd--US 20	4:15 PM	0	0	0	5	0	70	120	570	0	0	425	5	0.95
34	Scravel Hill Rd NE--Knox Butte Rd E	4:15 PM	10	90	20	10	45	60	45	130	15	15	120	15	0.92
35	Scravel Hill Rd NE--OR 164	4:40 PM	25	10	120	15	10	0	5	695	45	100	420	20	0.90
36	Central Ave/Crowfoot Rd	3:30 PM	15	35	45	0	50	90	40	80	15	100	60	0	0.85
	Future 2040 PM [Average Week Day Peak Hour] (Committed Improvements)														
01	Denny School Rd--Hwy 34	4:30 PM	410	0	5	0	0	0	0	395	785	15	305	0	0.95
02	Denny School Rd--Oak St/Hayden Dr	4:30 PM	0	300	25	145	640	5	5	5	0	5	5	115	0.88
03	Cascade Dr and Crowfoot Rd*	3:30 PM	15	5	5	20	25	0	0	80	35	25	75	25	0.85
04	Crowfoot Rd--Hwy 20/Santiam Hwy	3:30 PM	30	0	85	0	0	0	0	885	40	70	650	0	0.95
05	Knox Butte Rd--Hwy 20/Santiam Hwy	4:15 PM	0	0	0	245	0	15	15	450	0	0	335	200	0.98
06	Hwy 20/Santiam Hwy--OR 226	4:15 PM	0	370	30	335	375	0	0	0	0	25	0	170	0.96
07	OR 126/McKenzie Hwy--Hwy 20	3:35 PM	10	0	70	0	0	0	0	25	15	105	55	0	0.90
08	OR 126--US 20/OR 22/Santiam Hwy Junction	3:35 PM	10	0	95	0	0	0	0	170	5	180	195	0	0.90
09	Stayton-Scio Rd and Cole School Rd	3:55 PM	5	5	85	10	0	5	0	150	5	120	150	10	0.91
10	Stayton-Scio Rd--Kingston-Jordan Rd	3:55 PM	0	245	5	105	275	0	0	0	0	5	0	130	0.87
11	Stayton-Scio Rd--Slangal Dr	4:05 PM	5	0	120	0	0	0	0	10	0	120	10	0	0.85
12	Oakville Rd (North)--OR 34	4:30 PM	0	0	0	10	0	190	290	2075	0	0	1245	30	0.95
13	Oakville Rd (South)--OR 34	4:30 PM	5	0	10	10	0	5	0	2365	10	20	1415	0	0.95
14	Peoria Rd--OR 34	4:30 PM	255	5	70	10	5	40	15	2235	440	50	1515	10	0.95
15	Riverside Dr--OR 34	4:30 PM	0	0	0	0	0	60	100	2265	0	0	1460	10	0.95
16	Seven Mile Ln--OR 34	4:30 PM	30	30	25	150	35	50	40	1120	60	10	565	110	0.95
17	Brewster Rd--OR 226	4:30 PM	30	0	75	0	0	0	0	195	55	60	110	0	0.90
18	Crabtree Dr--OR 226	4:30 PM	0	0	0	10	0	5	5	245	0	0	120	15	0.90
19	OR 226--Fish Hatchery Dr	4:30 PM	0	180	80	0	125	0	0	0	0	45	0	5	0.90
20	OR 226--Kingston-Jordan Rd	4:20 PM	0	15	45	20	15	0	0	0	0	55	0	10	0.90
21	Richardson Gap Rd--Albany-Lyons Hwy	4:20 PM	25	50	35	10	55	10	15	40	25	35	40	0	0.93
22	Brush Creek Rd--OR 228	3:55 PM	10	0	50	0	0	0	0	125	20	35	100	0	0.85
23	Upper Calapooia Dr--OR 228	3:55 PM	5	0	30	0	0	0	0	175	20	20	155	0	0.95
24	US 20/Santiam Hwy--Spicer Dr/Tennessee School Dr	4:25 PM	100	385	10	5	405	5	5	5	180	5	5	5	0.95
25	Berlin Rd--Bellinger Scale Rd	4:10 PM	0	0	0	15	0	60	75	60	0	0	40	30	0.90
26	Waterloo Rd--Berlin Rd	4:50 PM	10	0	90	0	0	0	0	45	10	65	40	0	0.94
27	Brewster Rd--Lacomb Dr	4:20 PM	0	110	110	40	95	0	0	0	0	75	0	15	0.89
28	Shelburn Dr--Jefferson-Scio Dr	5:00 PM	0	0	0	5	0	10	15	85	0	0	45	0	0.85
29	Bellinger Scale Rd--Lacomb Dr	5:20 PM	15	0	20	0	0	0	0	90	40	10	35	0	0.85
30	Oakville Rd--Tangent Dr	3:30 PM	0	0	0	0	0	5	5	70	0	0	20	5	0.85
31	Peoria Rd--American Dr	4:05 PM	5	75	5	45	75	5	5	5	0	5	0	35	0.87
32	Richardson Gap Rd--Fish Hatchery Dr	4:10 PM	10	35	5	20	45	20	20	40	10	0	10	15	0.89
33	Scravel Hill Rd--US 20	4:15 PM	0	0	0	5	0	60	105	495	0	0	370	5	0.95
34	Scravel Hill Rd NE--Knox Butte Rd E	4:15 PM	10	80	15	10	40	55	40	115	15	10	105	15	0.92
35	Scravel Hill Rd NE--OR 164	4:40 PM	20	10	105	10	10	0	5	605	40	85	365	20	0.90
36	Central Ave/Crowfoot Rd	3:30 PM	15	30	40	0	45	75	35	70	15	90	50	0	0.85

Appendix C – ODOT Preliminary Signal Warrant Worksheets

Oregon Department of Transportation

Transportation Development Branch

Transportation Planning Analysis Unit

Preliminary Traffic Signal Warrant Analysis[1]

Major Street:	OR 34 (Speed 55)	**Minor Street:**	Denny School Rd.
Project:	Linn County TSP	**City/County:**	Lebanon, OR
Year:	Future Forecast (2040)	**Alternative:**	Future Base Conditions

Preliminary Signal Warrant Volumes

Number of Approach lanes		ADT on major street approaching from both directions		ADT on minor street, highest approaching volume	
Major Street	Minor Street	Percent of standard warrants 100	70	Percent of standard warrants 100	70
Case A: Minimum Vehicular Traffic					
1	1	8850	6200	2650	1850
2 or more	1	10600	7400	2650	1850
2 or more	2 or more	10600	7400	3550	2500
1	2 or more	8850	6200	3550	2500
Case B: Interruption of Continuous Traffic					
1	1	13300	9300	1350	950
2 or more	1	15900	11100	1350	950
2 or more	2 or more	15900	11100	1750	1250
1	2 or more	13300	9300	1750	1250
	100 percent of standard warrants				
X	70 percent of standard warrants[2]				

Preliminary Signal Warrant Calculation

	Street	Number of Lanes	Warrant Volumes	Approach Volumes	Warrant Met
Case A	Major	2	7400	7150	N
	Minor	1	1850	4100	
Case B	Major	2	11100	7150	N
	Minor	1	950	4100	
Analyst and Date: BLC 5/18/2016			Reviewer and Date:		

[1] Meeting preliminary signal warrants does **not** guarantee that a signal will be installed. When preliminary signal warrants are met, project analysts need to coordinate with Region Traffic to initiate the traffic signal engineering investigation as outlined in the Traffic Manual. Before a signal can be installed, the engineering investigation must be conducted or reviewed by the Region Traffic Manager who will forward signal recommendations to headquarters. Traffic signal warrants must be met and the State Traffic Engineer's approval obtained before a traffic signal can be installed on a state highway.

[2] Used due to 85th percentile speed in excess of 40 mph or isolated community with population of less than 10,000.

Oregon Department of Transportation
Transportation Development Branch
Transportation Planning Analysis Unit

Preliminary Traffic Signal Warrant Analysis[1]

Major Street:	US 20 (Speed 55)	**Minor Street:**	Knox Butte Rd.
Project:	Linn County TSP	**City/County:**	Linn County, OR
Year:	Future Forecast (2040)	**Alternative:**	Future Base Conditions

Preliminary Signal Warrant Volumes

Number of Approach lanes		ADT on major street approaching from both directions		ADT on minor street, highest approaching volume	
Major Street	Minor Street	Percent of standard warrants 100	70	Percent of standard warrants 100	70
Case A: Minimum Vehicular Traffic					
1	1	8850	6200	2650	1850
2 or more	1	10600	7400	2650	1850
2 or more	2 or more	10600	7400	3550	2500
1	2 or more	8850	6200	3550	2500
Case B: Interruption of Continuous Traffic					
1	1	13300	9300	1350	950
2 or more	1	15900	11100	1350	950
2 or more	2 or more	15900	11100	1750	1250
1	2 or more	13300	9300	1750	1250
	100 percent of standard warrants				
X	70 percent of standard warrants[2]				

Preliminary Signal Warrant Calculation

	Street	Number of Lanes	Warrant Volumes	Approach Volumes	Warrant Met
Case A	Major	2	7400	10000	Y
	Minor	1	1850	2450	
Case B	Major	2	11100	10000	N
	Minor	1	950	2450	
Analyst and Date: BLC 5/18/2016			Reviewer and Date:		

[1] Meeting preliminary signal warrants does **not** guarantee that a signal will be installed. When preliminary signal warrants are met, project analysts need to coordinate with Region Traffic to initiate the traffic signal engineering investigation as outlined in the Traffic Manual. Before a signal can be installed, the engineering investigation must be conducted or reviewed by the Region Traffic Manager who will forward signal recommendations to headquarters. Traffic signal warrants must be met and the State Traffic Engineer's approval obtained before a traffic signal can be installed on a state highway.

[2] Used due to 85th percentile speed in excess of 40 mph or isolated community with population of less than 10,000.

Oregon Department of Transportation

Transportation Development Branch

Transportation Planning Analysis Unit

Preliminary Traffic Signal Warrant Analysis[1]

Major Street:	US 20 (Speed 55)	**Minor Street:**	OR 226
Project:	Linn County TSP	**City/County:**	Linn County, OR
Year:	Future Forecast (2040)	**Alternative:**	Future Base Conditions

Preliminary Signal Warrant Volumes

Number of Approach lanes		ADT on major street approaching from both directions		ADT on minor street, highest approaching volume	
Major Street	Minor Street	Percent of standard warrants 100	70	Percent of standard warrants 100	70
Case A: Minimum Vehicular Traffic					
1	1	8850	6200	2650	1850
2 or more	1	10600	7400	2650	1850
2 or more	2 or more	10600	7400	3550	2500
1	2 or more	8850	6200	3550	2500
Case B: Interruption of Continuous Traffic					
1	1	13300	9300	1350	950
2 or more	1	15900	11100	1350	950
2 or more	2 or more	15900	11100	1750	1250
1	2 or more	13300	9300	1750	1250
	100 percent of standard warrants				
X	70 percent of standard warrants[2]				

Preliminary Signal Warrant Calculation

	Street	Number of Lanes	Warrant Volumes	Approach Volumes	Warrant Met
Case A	Major	2	7400	11100	N
	Minor	1	1850	250	
Case B	Major	2	11100	11100	N
	Minor	1	950	250	
Analyst and Date: BLC 5/18/2016			Reviewer and Date:		

[1] Meeting preliminary signal warrants does **not** guarantee that a signal will be installed. When preliminary signal warrants are met, project analysts need to coordinate with Region Traffic to initiate the traffic signal engineering investigation as outlined in the Traffic Manual. Before a signal can be installed, the engineering investigation must be conducted or reviewed by the Region Traffic Manager who will forward signal recommendations to headquarters. Traffic signal warrants must be met and the State Traffic Engineer's approval obtained before a traffic signal can be installed on a state highway.

[2] Used due to 85th percentile speed in excess of 40 mph or isolated community with population of less than 10,000.

Oregon Department of Transportation

Transportation Development Branch

Transportation Planning Analysis Unit

Preliminary Traffic Signal Warrant Analysis[1]

Major Street:	OR 164 (Speed 55)	**Minor Street:**	Scravel Hill Rd.
Project:	Linn County TSP	**City/County:**	Linn County, OR
Year:	Future Forecast (2040)	**Alternative:**	Future Base Conditions

Preliminary Signal Warrant Volumes

Number of Approach lanes		ADT on major street approaching from both directions		ADT on minor street, highest approaching volume	
Major Street	Minor Street	Percent of standard warrants 100	70	Percent of standard warrants 100	70
Case A: Minimum Vehicular Traffic					
1	1	8850	6200	2650	1850
2 or more	1	10600	7400	2650	1850
2 or more	2 or more	10600	7400	3550	2500
1	2 or more	8850	6200	3550	2500
Case B: Interruption of Continuous Traffic					
1	1	13300	9300	1350	950
2 or more	1	15900	11100	1350	950
2 or more	2 or more	15900	11100	1750	1250
1	2 or more	13300	9300	1750	1250
	100 percent of standard warrants				
X	70 percent of standard warrants[2]				

Preliminary Signal Warrant Calculation

	Street	Number of Lanes	Warrant Volumes	Approach Volumes	Warrant Met
Case A	Major	2	7400	11200	N
	Minor	1	1850	400	
Case B	Major	2	11100	11200	N
	Minor	1	950	400	
Analyst and Date: BLC 5/18/2016			Reviewer and Date:		

[1] Meeting preliminary signal warrants does **not** guarantee that a signal will be installed. When preliminary signal warrants are met, project analysts need to coordinate with Region Traffic to initiate the traffic signal engineering investigation as outlined in the Traffic Manual. Before a signal can be installed, the engineering investigation must be conducted or reviewed by the Region Traffic Manager who will forward signal recommendations to headquarters. Traffic signal warrants must be met and the State Traffic Engineer's approval obtained before a traffic signal can be installed on a state highway.

[2] Used due to 85th percentile speed in excess of 40 mph or isolated community with population of less than 10,000.

Oregon Department of Transportation
Transportation Development Branch
Transportation Planning Analysis Unit

Preliminary Traffic Signal Warrant Analysis[1]

Major Street:	Denny School Rd. (55mph)	**Minor Street:**	Oak
Project:	Linn County TSP	**City/County:**	Lebanon, OR
Year:	Future Forecast (2040)	**Alternative:**	Future Base Conditions

Preliminary Signal Warrant Volumes

Number of Approach lanes		ADT on major street approaching from both directions		ADT on minor street, highest approaching volume	
Major Street	Minor Street	Percent of standard warrants 100	70	Percent of standard warrants 100	70
Case A: Minimum Vehicular Traffic					
1	1	8850	6200	2650	1850
2 or more	1	10600	7400	2650	1850
2 or more	2 or more	10600	7400	3550	2500
1	2 or more	8850	6200	3550	2500
Case B: Interruption of Continuous Traffic					
1	1	13300	9300	1350	950
2 or more	1	15900	11100	1350	950
2 or more	2 or more	15900	11100	1750	1250
1	2 or more	13300	9300	1750	1250
	100 percent of standard warrants				
X	70 percent of standard warrants[2]				

Preliminary Signal Warrant Calculation

	Street	Number of Lanes	Warrant Volumes	Approach Volumes	Warrant Met
Case A	Major	2	7400	11150	N
	Minor	1	1850	100	
Case B	Major	2	11100	11150	N
	Minor	1	950	100	
Analyst and Date: BLC 5/18/2016			Reviewer and Date:		

[1] Meeting preliminary signal warrants does **not** guarantee that a signal will be installed. When preliminary signal warrants are met, project analysts need to coordinate with Region Traffic to initiate the traffic signal engineering investigation as outlined in the Traffic Manual. Before a signal can be installed, the engineering investigation must be conducted or reviewed by the Region Traffic Manager who will forward signal recommendations to headquarters. Traffic signal warrants must be met and the State Traffic Engineer's approval obtained before a traffic signal can be installed on a state highway.

[2] Used due to 85th percentile speed in excess of 40 mph or isolated community with population of less than 10,000.

Appendix D – Corridor Health Tool Summary

Corridor Health Tool Scoring Methodology

Category	Weight	Scoring Criteria
Safety	35	Safety is scored by comparing the segment crash rate (crashes per million vehicle miles traveled) to the ODOT published statewide averages for similar facilities. **Good**: Crash rate at or below average **Fair**: Crash rate between 100% and 150% of average **Poor**: Crash rate over 150% of average
Geometrics	25	Geometrics is scored by evaluating the segment travel lane width and paved shoulder width. Shoulder widths are compared to minimum and desired widths, as described in the existing conditions memo. **Good**: Shoulder width meets desired *OR* shoulder width meets minimum and lane width at least 11 feet **Fair**: Shoulder width meets minimum *OR* shoulder width does not meet minimum and lane width at least 11 feet **Poor**: Shoulder width does not meet minimum and lane width not at least 11 feet
Traffic Operations	20	Traffic operations is scored by evaluating the P.M. peak hour level of service on the segment and identifying any study intersections that do not meet mobility targets. **Good**: Segment LOS A or LOS B **Fair**: Segment LOS C **Poor**: Segment LOS D, or segment includes a study intersection which does not meet mobility targets.
Pavement Condition	10	Pavement conditions are scored based on Pavement Condition Index (PCI) score ranges established by ODOT or Linn County. **Good**: Pavement condition "very good" **Fair**: Pavement condition any intermediate score **Poor**: Pavement condition "poor" or worse
Access Density	10	Access density is scored based on ODOT's spacing standards. Access density was only evaluated on OR-34 and US-20 based on county staff input, all other segments received a default score of good. **Good**: Access spacing meets ODOT's spacing standard in both directions **Fair**: Access spacing meets ODOT's spacing standard in one direction **Poor**: Access spacing does not meet ODOT's spacing standard in either direction

The corridor health tool evaluates all roads classified as minor collector or higher in Linn County. The roads are split where two or more roads meet, forming evaluation segments. Every segment is given a score of Good (1 point), Fair (0.5 point), or Poor (0 points) for each of the five categories as detailed above. Where evaluation data varies over a segment, the length-weighted average score is used.

The category scores are multiplied by the category weight, then summed together for an overall segment health score between 0 and 100. A score of 85 or above is Good, a score of 70 or above is Fair, and a score lower than 70 is Poor.

Corridor Health Results (2040 - ODOT Segments)

DKS ID	Road Name	Start Description	End Description	Start MP	End MP	Length (mi)	Overall Health (num)	Rounded Health	Overall Health (desc)	Existing Conditions Overall Health (desc)	Future Conditions Overall Health Changed?	Safety (num)	Safety (desc)	Existing Conditions Safety (desc)	Future Conditions Safety Changed?	Geometrics (num)	Geometrics (desc)	Existing Conditions Geometrics (desc)	Future Conditions Geometrics Changed?	Traffic Operations (num)	Traffic Operations (desc)	Existing Conditions Traffic Operations (desc)	Future Conditions Traffic Operations Changed?	Pavement (num)	Pavement (desc)	Existing Conditions Pavement (desc)	Future Conditions Pavement Changed?	Access Density (num)	Access Density (desc)	Existing Conditions Access Density (desc)	Future Conditions Access Density Changed?
016-1.01	US 20	Albany UGB	Knox Butte Rd	2.61	6.46	3.85	47.4	45.0	Poor	Poor	FALSE	0.5	Fair	Fair	FALSE	0.9	Good	Good	FALSE	0.0	Poor	Fair	TRUE	0.5	Fair	Fair	FALSE	0.0	Poor	Poor	FALSE
016-1.02	US 20	Knox Butte Rd	OR 226	6.46	6.55	0.09	47.5	50.0	Poor	Poor	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Fair	TRUE	0.5	Fair	Fair	FALSE	0.0	Poor	Poor	FALSE
016-1.03	US 20	OR 226	Spicer Dr / Tennessee School Rd	6.55	9.82	3.27	47.6	50.0	Poor	Poor	FALSE	0.5	Fair	Fair	FALSE	0.9	Good	Good	FALSE	0.0	Poor	Good	TRUE	0.5	Fair	Fair	FALSE	0.3	Poor	Poor	FALSE
016-1.04	US 20	Spicer Dr / Tennessee School Rd	Lebanon UGB	9.82	12.24	2.42	57.3	55.0	Poor	Poor	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	0.5	Fair	Fair	FALSE	0.0	Poor	Poor	FALSE
016-1.05	US 20	Lebanon UGB	Cascade Dr / Old Santiam Hwy	16.46	17.73	1.27	87.8	90.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.9	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	0.5	Fair	Fair	FALSE
016-1.06	US 20	Cascade Dr / Old Santiam Hwy	Sodaville Waterloo Rd / W Waterloo Rd	17.73	18.67	0.94	90.0	90.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	0.5	Fair	Fair	FALSE
016-1.07	US 20	Sodaville Waterloo Rd / W Waterloo Rd	Fairview Rd	18.67	19.38	0.71	90.0	90.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	0.5	Fair	Fair	FALSE
016-1.08	US 20	Fairview Rd	Liberty Rd / Fairview Rd	19.38	22.82	3.44	85.0	85.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	0.0	Poor	Poor	FALSE
016-1.09	US 20	Liberty Rd / Fairview Rd	Sweet Home UGB	22.82	26.61	3.79	86.6	85.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	0.3	Poor	Poor	FALSE
016-1.10	US 20	Sweet Home UGB	Quartzville Rd	31.3	32.98	1.68	77.7	80.0	Fair	Fair	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE
016-1.11	US 20	Quartzville Rd	US 20 Off Ramp / US 20 On Ramp	32.98	71.52	38.54	53.0	55.0	Poor	Poor	FALSE	0.2	Poor	Poor	FALSE	0.6	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.3	Poor	Poor	FALSE	1.0	Good	Good	FALSE
016-1.12	US 20	US 20 Off Ramp / US 20 On Ramp	OR 126 On Ramp	71.52	71.69	0.17	60.0	60.0	Poor	Poor	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE
016-1.13	US 20	OR 126 On Ramp	OR 22	71.69	74.9	3.21	54.3	55.0	Poor	Poor	FALSE	0.0	Poor	Poor	FALSE	0.8	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE
016-1.14	US 20	OR 22	Jefferson County Line	74.9	80.77	5.87	40.0	40.0	Poor	Poor	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Fair	TRUE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE
033-1.01	OR 34	Corvallis UGB	OR 34	56.14	56.8	0.66	60.0	60.0	Poor	Poor	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
058-1.01	OR 99E	Albany UGB	Tangent UGB	6.3	6.58	0.28	95.0	95.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
058-1.02	OR 99E	Tangent UGB	Bell Plain Dr	9.21	12.36	3.15	84.3	85.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.6	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
058-1.03	OR 99E	Bell Plain Dr	Fayetteville Dr / Boston Mill Dr	12.36	14.33	1.97	83.1	85.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
058-1.04	OR 99E	Fayetteville Dr / Boston Mill Dr	Linnwest Dr	14.33	16.85	2.52	84.2	85.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.6	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
058-1.05	OR 99E	Linnwest Dr	Oak Plain Dr	16.85	17.35	0.5	82.5	85.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
058-1.06	OR 99E	Oak Plain Dr	Halsey UGB	17.35	19.26	1.91	82.5	85.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
058-1.07	OR 99E	Halsey UGB	Irish Bend Rd / Lake Creek Dr	20.37	21.39	1.02	91.3	90.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.9	Good	Good	FALSE	1.0	Good	Good	FALSE	0.4	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
058-1.08	OR 99E	Irish Bend Rd / Lake Creek Dr	Substation Rd	21.39	25.2	3.81	95.0	95.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
058-1.09	OR 99E	Substation Rd	Harrisburg UGB	25.2	27.69	2.49	95.0	95.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
162-1.01	OR 22	Marion County Line	US 20	60.79	81.81	21.02	56.8	55.0	Poor	Poor	FALSE	0.3	Poor	Poor	FALSE	0.9	Good	Good	FALSE	0.1	Poor	Fair	TRUE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
164-1.01	OR 164	Jefferson UGB	Scravel Hill Rd / Santiam Bluffs Rd NE	6.24	7.29	1.05	75.0	75.0	Fair	Good	TRUE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Good	TRUE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
164-1.02	OR 164	Scravel Hill Rd / Santiam Bluffs Rd	I 5 N On Ramp	7.29	8.13	0.84	75.0	75.0	Fair	Good	TRUE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Good	TRUE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
164-2.01	OR 164	I 5 N On Ramp	I 5 S On Ramp	8.13	8.43	0.3	82.5	85.0	Fair	Good	TRUE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Good	TRUE	0.3	Poor	Poor	FALSE	1.0	N/A	N/A	FALSE
210-1.02	OR 34	OR 34	Peoria Rd	0.32	1.19	0.87	42.3	40.0	Poor	Poor	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Poor	TRUE	0.6	Fair	Fair	FALSE	0.2	Poor	Poor	FALSE
210-1.03	OR 34	Peoria Rd	Riverside Dr	1.19	3.03	1.84	79.3	80.0	Fair	Good	TRUE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Good	TRUE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE
210-1.04	OR 34	Riverside Dr	Oakville Rd	3.03	5.1	2.07	80.0	80.0	Fair	Good	TRUE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Good	TRUE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE
210-1.05	OR 34	Oakville Rd	Oakville Rd	5.1	5.36	0.26	80.0	80.0	Fair	Good	TRUE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Good	TRUE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE
210-1.06	OR 34	Oakville Rd	Looney Ln	5.36	7.03	1.67	90.0	90.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE
210-1.07	OR 34	Looney Ln	Tangent UGB	7.03	7.5	0.47	89.3	90.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE
210-1.08	OR 34	Tangent UGB	Columbus St	7.66	9.16	1.5	71.9	70.0	Fair	Fair	FALSE	0.6	Fair	Fair	FALSE	0.8	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE
210-1.09	OR 34	Columbus St	Seven Mile Ln	9.16	10.77	1.61	50.2	50.0	Poor	Poor	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	0.8	Good	Good	FALSE	0.1	Poor	Poor	FALSE
210-1.10	OR 34	Seven Mile Ln	Goltra Rd	10.77	12.77	2	75.0	75.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE
210-1.11	OR 34	Goltra Rd	Tangent Dr	12.77	13.27	0.5	85.0	85.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Good	TRUE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE
210-1.12	OR 34	Tangent Dr	Denny School Rd	13.27	15.67	2.4	73.5	75.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	0.5	Fair	Fair	FALSE	0.8	Good	Good	FALSE
210-1.13	OR 34	Denny School Rd	Lebanon UGB	15.67	16.51	0.84	70.0	70.0	Fair	Good	TRUE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Good	TRUE	0.5	Fair	Fair	FALSE	0.5	Fair	Fair	FALSE
211-1.01	OR 226	US 20	Hungry Hill Dr / Cold Springs Rd	0	2.48	2.48	71.2	70.0	Fair	Good	TRUE	1.0	Good	Good	FALSE	0.8	Good	Good	FALSE	0.0	Poor	Good	TRUE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
211-1.02	OR 226	Hungry Hill Dr / Cold Springs Rd	Crabtree Dr	2.48	3.12	0.64	95.0	95.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
211-1.03	OR 226	Crabtree Dr	Brewster Rd	3.12	3.99	0.87	95.0	95.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
211-1.04	OR 226	Brewster Rd	Fish Hatchery Dr	3.99	4.3	0.31	95.0	95.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
211-1.05	OR 226	Fish Hatchery Dr	Montgomery Dr	4.3	7.2	2.9	82.5	85.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
211-1.06	OR 226	Montgomery Dr	Gilkey Rd	7.2	9.34	2.14	82.5	85.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
211-1.07	OR 226	Gilkey Rd	Scio UGB	9.34	9.45	0.11	95.0	95.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
211-1.08	OR 226	Scio UGB	Richardson Gap Rd	9.99	12	2.01	68.5	70.0	Poor	Poor	FALSE	0.5	Fair	Fair	FALSE	0.6	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
211-1.09	OR 226	Richardson Gap Rd	Camp Morrison Dr	12	16.47	4.47	68.7	70.0	Poor	Poor	FALSE	0.5	Fair	Fair	FALSE	0.6	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
211-1.10	OR 226	Camp Morrison Dr	Kingston Jordan Rd	16.47	18.58	2.11	65.0	65.0	Poor	Poor	FALSE	0.5	Fair	Fair	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
211-1.11	OR 226	Kingston Jordan Rd	Kingston-Lyons Dr	18.58	21.89	3.31	65.0	65.0	Poor	Poor	FALSE	0.5	Fair	Fair	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
211-1.12	OR 226	Kingston-Lyons Dr	Lyons UGB	21.89	23.54	1.65	65.0	65.0	Poor	Poor	FALSE	0.5	Fair	Fair	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
212-1.01	OR 228	Halsey UGB	Brownsville UGB	0.37	5.48	5.11	94.0	95.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
212-1.02	OR 228	Brownsville UGB	Brush Creek Rd	6.58	13.55	6.97	83.6	85.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
212-1.03	OR 228	Brush Creek Rd	Upper Calapooia Dr	13.55	16.74	3.19	83.0	85.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
212-1.04	OR 228	Upper Calapooia Dr	Old Holley Rd	16.74	17.08	0.34	95.0	95.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
212-1.05	OR 228	Old Holley Rd	Sweet Home UGB	17.08	20.59	3.51	83.4	85.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
215-1.02	OR 126	US 20 Off Ramp / OR 126 On Ramp	Lane County Line	0.05	13.02	12.97	96.2	95.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.9	Good	Good	FALSE	1.0	Good	Good	FALSE	0.9	Good	Good	FALSE	1.0	N/A	N/A	FALSE

Corridor Health Results (2040 - County Segments)

DKS ID	Road Name	Start Description	End Description	Start MP	End MP	Length (mi)	Overall Health (num)	Rounded Overall Health Score	Overall Health (desc)	Existing Conditions Overall Health (desc)	Future Conditions Overall Health Changed?	Safety (num)	Safety (desc)	Existing Conditions Safety (desc)	Future Conditions Safety Changed?	Geometrics (num)	Geometrics (desc)	Existing Conditions Geometrics (desc)	Future Conditions Geometrics Changed?	Traffic Operations (num)	Traffic Operations (desc)	Existing Conditions Traffic Operations (desc)	Future Conditions Traffic Operations Changed?	Pavement (num)	Pavement (desc)	Existing Conditions Pavement (desc)	Future Conditions Pavement Changed?	Access Density (num)	Access Density (desc)	Existing Conditions Access Density (desc)	Future Conditions Access Density Changed?
D0001.1	Riverside Dr, Queen Av	Albany UGB	Riverside Dr	0.41	0.7	0.29	60.0	60.0	Poor	Poor	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Fair	TRUE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0001.2	Riverside Dr	Oakville Rd	OR 34	0.7	6.53	5.83	77.5	80.0	Fair	Poor	TRUE	0.5	Fair	Fair	FALSE	1.0	Good	Fair	TRUE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0002.1	Peoria Rd	OR 34	Church Dr	0	4.3	4.3	98.1	100.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.9	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0002.2	Peoria Rd	Church Rd	Fayetteville Dr	4.3	8.35	4.05	87.5	90.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0002.3	Peoria Rd	Fayetteville Dr	Abraham Dr	8.35	9.05	0.7	87.5	90.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0002.4	Peoria Rd	Abraham Rd	American Dr / Pine	9.05	12.18	3.13	87.5	90.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0002.5	Peoria Rd	Pine Grove Dr / Ame	Irish Bend Lp / Lake	12.18	15.31	3.13	99.2	100.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0002.6	Peoria Rd	Irish Bend Lp / Lake	Harrisburg UGB	15.31	20.86	5.55	100.0	100.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0002-A.1	6th, Coburg Rd	Harrisburg UGB	Bowers Dr	0.48	3.17	2.69	87.5	90.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0002-A.2	Coburg Rd	Bowers Rd	Lane County Line	3.17	5.19	2.02	87.5	90.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0003.1	American Dr	Halsey UGB	Nicewood Ln	0.23	2.88	2.65	95.0	95.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0004.1	Jefferson-Scio Dr	Marion County Line	Kelly Rd	0	1.26	1.26	89.7	90.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.6	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0004.2	Jefferson-Scio Dr	Kelly Rd	Shelburn Dr	1.26	3.07	1.81	87.4	85.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0004.3	Jefferson-Scio Dr	Shelburn Dr	Jefferson-Scio Dr	3.07	3.33	0.26	82.5	85.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0004.4	Jefferson-Scio Dr	Jefferson-Scio Dr	Scio UGB	3.33	5.91	2.58	81.9	80.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0005.1	Shelburn Dr	Jefferson-Scio Dr	Slangal Dr	0.16	3.91	3.75	77.1	75.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.1	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.9	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0005.2	Shelburn Dr	Slangal Dr	Stayton Scio Rd	3.91	6.14	2.23	82.5	85.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0005.3	Stayton Scio Rd	Shelburn Dr	Cole School Rd	6.14	7.41	1.27	62.0	60.0	Poor	Poor	FALSE	0.5	Fair	Fair	FALSE	0.4	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0005.4	Stayton Scio Rd	Cole School Rd	Kingston Jordan Rd	7.41	8.72	1.31	65.0	65.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	N/A	N/A	FALSE
D0005.5	Kingston Jordan Rd	Stayton Scio Rd	Kingston Lyons Dr	8.72	9.8	1.08	30.0	30.0	Poor	Poor	FALSE	0.0	Poor	Poor	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	N/A	N/A	FALSE
D0005-A.1	Shelburn Dr	Jefferson-Scio Dr	Shelburn Dr	0	0.3	0.3	40.0	40.0	Poor	Poor	FALSE	0.0	Poor	Poor	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0005-B.1	Kingston Jordan Rd	OR 226	Huntley Rd	0	2.85	2.85	60.0	60.0	Poor	Poor	FALSE	0.5	Fair	Fair	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	N/A	N/A	FALSE
D0006.1	Lyons Mill City Dr	Lyons UGB	Mill City UGB	1.81	5.66	3.85	40.0	40.0	Poor	Poor	FALSE	0.0	Poor	Poor	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0007.1	Knox Butte Rd	Millersburg UGB	Lickskillet Rd	2.71	4.16	1.45	82.5	85.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0007.2	Knox Butte Rd	Lickskillet Rd	US 20	4.16	5.8	1.64	82.5	85.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0007-A.1	Gilkey Rd, Crabtree Dr	Kelly Rd	Cold Springs Rd	0.01	3.76	3.75	47.5	50.0	Poor	Poor	FALSE	0.0	Poor	Poor	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0007-A.2	Crabtree Dr	Cold Springs Rd	OR 226	3.76	4.51	0.75	90.4	90.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.6	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0009.1	Spicer Dr	Albany UGB	Grand Prairie Rd / S	0.68	3.18	2.5	49.9	50.0	Poor	Poor	FALSE	0.0	Poor	Poor	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.7	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0009.2	Spicer Dr	Grand Prairie Rd	Goltra Rd	3.18	3.57	0.39	47.5	50.0	Poor	Poor	FALSE	0.0	Poor	Poor	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0009.3	Spicer Dr	Goltra Rd	Spicer Dr	3.57	8.72	5.15	85.0	85.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.9	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0009.4	Spicer Dr	Spicer Dr	US 20	3.57	8.72	5.15	85.0	85.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.9	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0009.5	Tennessee School Rd	US 20	Tennessee Rd	8.72	10.08	1.36	35.0	35.0	Poor	Poor	FALSE	0.0	Poor	Poor	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0010.1	Oak St	Lebanon UGB	Denny School Rd	1.55	2.35	0.8	70.0	70.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	0.0	Poor	Poor	FALSE	1.0	N/A	N/A	FALSE
D0010.2	Denny School Rd	Oak St	Sand Ridge Rd	2.35	2.77	0.42	70.0	70.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	0.0	Poor	Poor	FALSE	1.0	N/A	N/A	FALSE
D0010.3	Sand Ridge Rd	Denny School Rd	Plainview Dr	2.77	8.5	5.73	82.5	85.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0011.1	7 Mile Ln	Albany UGB	Three Lakes Rd	1.27	1.49	0.22	55.0	55.0	Poor	Poor	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Poor	TRUE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	N/A	N/A	FALSE
D0011.2	7 Mile Ln	Three Lakes Rd	OR 34	1.49	3.64	2.15	52.1	50.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	0.0	Poor	Poor	FALSE	0.7	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0011.3	7 Mile Ln	OR 34	Tangent Dr	3.64	4.67	1.03	59.5	60.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.3	Poor	Poor	FALSE	0.0	Poor	Poor	FALSE	0.7	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0011.4	7 Mile Ln	Tangent Dr	Boston Mill Rd / 7 M	4.67	8.79	4.12	78.7	80.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.3	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0011.5	7 Mile Ln	Boston Mill Dr	Plainview Dr	8.79	9.29	0.5	70.0	70.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0011.6	7 Mile Ln	Plainview Dr	Harrison Rd	9.29	13.91	4.62	70.0	70.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0011.7	7 Mile Ln	Linnwest Dr	Harrison Rd	13.91	14.39	0.48	70.0	70.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0011.8	7 Mile Ln	Linnwest Dr	Brownsville UGB	14.39	16.49	2.1	74.8	75.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0012.1	Bell Plain Dr, Church Dr	Oakville Rd	OR 99E	0	5.16	5.16	75.2	75.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.1	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.8	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0012.2	Church Rd	Oakville Rd	Peoria Rd	5.16	6.49	1.33	35.8	35.0	Poor	Poor	FALSE	0.0	Poor	Poor	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0013.1	Fayetteville Dr	Peoria Rd	OR 99E	0	5.1	5.1	68.1	70.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.3	Poor	Poor	FALSE	1.0	N/A	N/A	FALSE
D0013.2	Boston Mill Dr, Saddle Butte Rd	OR 99E	Boston Mill Dr	5.1	9.63	4.53	73.6	75.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.9	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0014.1	Diamond Hill Dr	Harrisburg UGB	Powerline Rd	1.08	1.96	0.88	87.5	90.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0014.2	Diamond Hill Dr	Powerline Rd	Weatherford Rd	1.96	3.64	1.68	87.5	90.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0014.3	Diamond Hill Dr	Weatherford Rd	North Coburg Rd	3.64	5.14	1.5	87.5	90.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0014.4	Diamond Hill Dr	North Coburg Rd	I 5	5.14	8.22	3.08	83.0	85.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.6	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0014.5	Diamond Hill Dr	I 5	Gap Rd	5.14	8.22	3.08	83.0	85.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.6	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0015.1	Gap Rd	Diamond Hill Dr	Lake Creek Dr	2.78	9.8	7.02	76.7	75.0	Fair	Fair	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.4	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0015.2	Gap Rd	Lake Creek Rd	Brownsville UGB	9.8	10.39	0.59	95.0	95.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	N/A	N/A	FALSE	1.0	N/A	N/A	FALSE
D0017.1	Brush Creek Rd	OR 228	Lane County Line	0	6.42	6.42	75.8	75.0	Fair	Fair	FALSE	0.5	Fair	Fair	FALSE	0.7	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0018.1	Harrison Rd	7 Mile Ln	Sand Ridge Rd / Brc	0	3.11	3.11	57.5	60.0	Poor	Poor	FALSE	0.5	Fair	Fair	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0018.2	Sand Ridge Rd	Brownsville Rd	Brownsville Rd	3.11	3.62	0.51	95.4	95.0	Good	Fair	TRUE	1.0	Good	Good	FALSE	1.0	Good	Poor	TRUE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0019.1	Plainview Dr	7 Mile Ln	Parker Rd	0	1.01	1.01	75.0	75.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0020-B.1	Berlin Rd	Lebanon UGB	Waterloo Rd	1.53	5.35	3.82	84.4	85.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.7	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0020-B.2	Berlin Rd	Waterloo Rd	Bellinger Scale Rd	5.35	5.62	0.27	52.5	55.0	Poor	Poor	FALSE	0.0	Poor	Poor	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0020-B.3	Berlin Rd	Bellinger Scale Rd	Upper Berlin Rd	5.62	8.41	2.79	87.3	85.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0020-L.1	Lacomb Dr	Brewster Rd	Old Bellinger Scale	0	3.6	3.6	82.5	85.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0020-L.2	Lacomb Dr	Old Bellinger Scale R	Kowitz Rd	3.6	3.66	0.06	47.5	50.0	Poor	Poor	FALSE	0.0	Poor	Poor	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0020-L.3	Lacomb Dr	Kowitz Rd	Bellinger Scale Rd	3.66	4.41	0.75	77.5	80.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	N/A	N/A	FALSE
D0020-L.4	Lacomb Dr	Bellinger Scale Rd	Meridian Rd / Ford	4.41	6.57	2.16	60.0	60.0	Poor	Poor	FALSE	0.5	Fair	Fair	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	N/A	N/A	FALSE
D0022.1	Tangent Dr	7 Mile Ln	Tangent UGB	0	2.43	2.43	71.7	70.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.6	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0023.1	Lake Creek Dr	OR 99E	Seefeld Dr	0	5.02	5.02	82.5	85.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0024.1	Brewster Rd	Lebanon UGB	Golden Valley Dr	1.14	1.55	0.41	90.0	90.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	N/A	N/A	FALSE
D0024.2	Brewster Rd	Golden Valley Dr	Lacomb Dr	1.55	3.88	2.33	90.0	90.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	N/A	N/A	FALSE
D0024.3	Brewster Rd	Lacomb Dr	OR 226	3.88	7.7	3.82	95.0	95.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0025.1	Richardson Gap Rd	Fish Hatchery Dr	Montgomery Dr	0	2.03	2.03	82.5	85.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0025.2	Richardson Gap Rd	Montgomery Dr	OR 226	2.03	4.66	2.63	82.5	85.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0026.1	Linnwest Dr	OR 99E	Harrison Rd	0	4.54	4.54	82.2	80.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0031.1	Sodaville Rd	Lebanon UGB	Cascade Dr	0	0.36	0.36	77.5	80.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	N/A	N/A	FALSE
D0031.2	Sodaville Rd	Cascade Dr	Sodaville UGB	0.36	1.25	0.89	78.0	80.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.1	Poor	Poor	FALSE	1.0	N/A	N/A	FALSE
D0032.1	Oakville Rd	Riverside Dr	OR 34	0	3.73	3.73	87.9	90.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0032-A.1	Oakville Rd	OR 34	Tangent Dr	0	2.74	2.74	56.7	55.0	Poor	Poor	FALSE	0.5	Fair	Fair	FALSE	0.1	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.6	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0032-A.2	Oakville Rd	Tangent Rd	Curch Dr	2.74	4.73	1.99	70.0	70.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0033.1	Scravel Hill Rd	OR 164	Kamph Dr NE	0	2.91	2.91	87.5	90.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0033.2	Scravel Hill Rd	Kamph Dr NE	Albany UGB	2.91	3.71	0.8	70.0	70.0	Fair	Fair	FALSE	0.5	Fair	Fair	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0034.1	Dever Conner Rd, Conser Rd	I 5	Millersburg UGB	0	8	8	87.5	90.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0035.1	North River Dr	Pleasant Valley Rd	Sunnyside Rd	0	2.77	2.77	56.4	55.0	Poor	Poor	FALSE	0.5	Fair	Fair	FALSE	0.2	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0035.2	North River Dr	Sunnyside Rd	Quartzville Rd	2.77	3.21	0.44	65.0	65.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	N/A	N/A	FALSE
D0122.1	Tangent Dr	Tangent UGB	Oakville Rd	0.34	3.34	3	83.9	85.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.6	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0206.1	Abraham Dr	Peoria Rd	Potter Rd	0.08	1.88	1.8	75.0	75.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0209.1	Potter Rd	Linn County 211	Abraham Dr	0	1.84	1.84	87.0	85.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0211.1	Potter Rd	Linn County 211	Creek Bend Rd	2.21	2.69	0.48	86.4	85.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.9	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0212.1	Oak Plain Dr	OR 99E	Creek Bend Rd	0.41	2.92	2.51	87.1	85.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0217.1	American Dr	Creek Dr	Peoria Rd	2.13	2.93	0.8	82.5	85.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0217-A.1	American Dr	Nicewood Ln	Creek Dr	0	1.61	1.61	95.0	95.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0218.1	Powerline Rd	Substation Dr	OR 99E	0	0.66	0.66	82.5	85.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0222.1	Lake Creek Dr	Peoria Rd	OR 99E	3.6	7.77	4.17	82.5	85.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0230.1	Powerline Rd	Diamond Hill Dr	Substation Dr	6.12	7.28	1.16	65.0	65.0	Poor	Poor	FALSE	0.5	Fair	Fair	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0232.1	Priceboro Dr	Harrisburg UGB	Weatherford Rd	0	3.24	3.24	82.5	85.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0234.1	Bowers Rd	Coburg Rd	North Coburg Rd	0	3.23	3.23	82.5	85.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0318.1	Kamph Dr, Lickskillet Rd	Knox Butte Rd	Scravel Hill Rd	0	3.63	3.63	85.9	85.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.8	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0318.2	Kamph Dr	Scravek Hill Rd	Murder Creek Dr / !	3.63	4.72	1.09	47.5	50.0	Poor	Poor	FALSE	0.0	Poor	Poor	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0335.1	Grand Prairie Dr	Albany UGB	Spicer Dr	1.13	2.93	1.8	52.5	55.0	Poor	Poor	FALSE	0.0	Poor	Poor	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0337.1	Three Lakes Rd	Albany UGB	Midway Rd	1.55	2.2	0.65	52.6	55.0	Poor	Poor	FALSE	0.5	Fair	Fair	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0337.2	Three Lakes Rd	Midway Rd	7 Mile Ln	2.2	3.02	0.82	75.0	75.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0338.1	Midway Rd	Goltra Rd	Three Lakes Rd	0	2.74	2.74	75.0	75.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0339.1	Goltra Rd	Spicer Dr	Midway Rd	0	1.69	1.69	76.4	75.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.3	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0339.2	Goltra Rd	Midway Rd	OR 34	1.69	3.32	1.63	70.0	70.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0403.1	Tangent Dr	OR 34	7 Mile Ln	0	2.75	2.75	70.0	70.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0412.1	Plainview Dr	Parker Rd	Sand Ridge Rd	0	1.53	1.53	87.4	85.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0412.2	Sand Ridge Rd	Plainview Dr	Rock Hill Dr	1.53	1.66	0.13	46.7	45.0	Poor	Poor	FALSE	0.0	Poor	Poor	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.4	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0412.3	Sand Ridge Rd	Rock Hill Dr	Brownsville Rd	1.66	2.62	0.96	90.0	90.0	Good	Poor	TRUE	1.0	Good	Good	FALSE	1.0	Good	Poor	TRUE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	N/A	N/A	FALSE
D0425.1	Brownsville Rd	Brownsville UGB	Harrison Rd	0.93	5.41	4.48	82.9	85.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0508.1	Lake Creek Dr	Seefeld Dr	Gap Rd	0	1.74	1.74	82.5	85.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0521.1	Weatherford Rd	Diamond Hill Dr	Priceboro Dr	0	1.28	1.28	67.5	70.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.3	Poor	Poor	FALSE	1.0	N/A	N/A	FALSE
D0521.2	Priceboro Dr	Weatherford Rd	North Coburg Rd	1.28	3.49	2.21	82.5	80.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0522.1	North Coburg Rd	Priceboro Rd	Diamond Hill Dr	0	2	2	82.5	85.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0523.1	North Coburg Rd	Lane County Line	Bowers Rd	0	2.02	2.02	87.5	90.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0523.2	North Coburg Rd	Bowers Rd	Priceboro Dr	2.02	3.65	1.63	87.5	90.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0601.1	Stayton Scio Rd	Stayton Scio Rd	Stayton UGB	0	0.21	0.21	70.0	70.0	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE

Corridor Health Results (2040 - County Segments)

DKS ID	Road Name	Start Description	End Description	Start MP	End MP	Length (mi)	Overall Health (num)	Rounded Overall Health Score	Overall Health (desc)	Existing Conditions Overall Health (desc)	Future Conditions Overall Health Changed?
D0604.1	Cole School Rd	Richardson Gap Rd	Stayton Scio Rd	0	3.24	3.24	77.5	80.0	Fair	Fair	FALSE
D0606.1	Kingston Jordan Rd	Sander Dr	Kingston Jordan Rd	2.8	4.83	2.03	77.5	80.0	Fair	Fair	FALSE
D0607.1	Kingston Jordan Rd	Huntley Rd	Sandner Dr	0	1.63	1.63	82.2	80.0	Fair	Fair	FALSE
D0611.1	Stayton Scio Rd	Scio UGB	Slangal Dr	0.65	3.69	3.04	87.5	90.0	Good	Good	FALSE
D0611.2	Stayton Scio Rd	Slangal Dr	Shelburn Rd	3.69	4.86	1.17	87.5	90.0	Good	Good	FALSE
D0612.1	Slangal Dr	Shelburn Dr	Stayton Scio Rd	0	0.87	0.87	75.0	75.0	Fair	Fair	FALSE
D0622.1	Kelly Rd	Jefferson-Scio Dr	Gilkey Rd	0	3.01	3.01	81.9	80.0	Fair	Fair	FALSE
D0628.1	Gilkey Rd	OR 226	Kelly Rd	0	4.4	4.4	73.9	75.0	Fair	Fair	FALSE
D0634.1	Montgomery Dr	Richardson Gap Rd	OR 226	0	2.1	2.1	65.0	65.0	Poor	Poor	FALSE
D0637.1	Richardson Gap Rd	OR-226	Ridge Dr	0	1.71	1.71	30.6	30.0	Poor	Poor	FALSE
D0648.1	Fish Hatchery Dr	OR 226	Richardson Gap Rd	0	3.1	3.1	82.5	85.0	Fair	Fair	FALSE
D0648.2	Fish Hatchery Dr	Richardson Gap Rd	Meridian Rd	3.1	6.44	3.34	65.0	65.0	Poor	Poor	FALSE
D0648.3	Fish Hatchery Dr	Meridian Rd	Larwood Dr	6.44	6.73	0.29	85.9	85.0	Good	Good	FALSE
D0650.1	Cold Springs Rd	Crabtree Dr	OR 226	0	0.32	0.32	95.2	95.0	Good	Good	FALSE
D0663.1	Tennessee Rd	Tennessee School Rd	Kgal Dr	0	1.22	1.22	70.0	70.0	Fair	Fair	FALSE
D0669.1	Richardson Gap Rd	Fich Hatchery Dr	Baptist Church Dr	0	3.27	3.27	84.1	85.0	Fair	Fair	FALSE
D0670.1	Baptist Church Dr	Kowitz Rd	Richardson Gap Rd	2.97	3.28	0.31	65.6	65.0	Poor	Poor	FALSE
D0671.1	Kowitz Rd	Lacomb Dr	Baptist Chruch Dr	0	1.01	1.01	70.0	70.0	Fair	Fair	FALSE
D0673.1	Old Bellinger Scale Rd	Bellinger Scale Rd	Lacomb Dr	0	1.35	1.35	70.4	70.0	Fair	Fair	FALSE
D0676.1	Meridian Rd	Fish Hatchery Dr	Lacomb Dr / East La	0	2.98	2.98	82.7	85.0	Fair	Fair	FALSE
D0701.1	Tennessee Rd	Gore Dr	Kgal Dr	4.59	5.49	0.9	70.0	70.0	Fair	Fair	FALSE
D0702.1	Tennessee Rd	Lebanon UGB	Gore Dr	0.83	1.41	0.58	70.0	70.0	Fair	Fair	FALSE
D0705.1	Denny School Rd	OR 34	Oak St	0	0.58	0.58	59.0	60.0	Poor	Poor	FALSE
D0707.1	Airport Dr	Lebanon UGB	Denny School Rd	0.78	1.87	1.09	79.3	80.0	Fair	Fair	FALSE
D0707.2	Denny School Rd	Airport Rd	Sand Ridge Rd	0.78	1.87	1.09	79.3	80.0	Fair	Fair	FALSE
D0708.1	Denny School Rd	End of Road	End of Road	0	0.06	0.06	87.5	90.0	Good	Good	FALSE
D0714.1	South 5th St	Rock Hill Dr	Lebanon UGB	0	0.43	0.43	82.5	85.0	Fair	Fair	FALSE
D0715.1	Rock Hill Dr	Stoltz Hill Rd	South 5th St	0	0.49	0.49	47.5	50.0	Poor	Poor	FALSE
D0715.2	Rock Hill Dr	South 5th St	South Main St	0.49	0.98	0.49	47.5	50.0	Poor	Poor	FALSE
D0715.3	Rock Hill Dr	South Main St	Lebanon UGB	0.98	1.81	0.83	47.5	50.0	Poor	Poor	FALSE
D0716.1	Cascade Dr	US 20	Sodaville Rd	0	1.18	1.18	82.8	85.0	Fair	Fair	FALSE
D0716.2	Cascade Dr	Sodaville Rd	Lebanon UGB	1.18	1.4	0.22	47.5	50.0	Poor	Poor	FALSE
D0719.1	River Dr	Lebanon UGB	River Dr, 1st St	0.94	1.73	0.79	85.8	85.0	Good	Good	FALSE
D0719.2	River Dr, 1st St	River Dr	Waterloo UGB	1.73	5.04	3.31	52.5	55.0	Poor	Poor	FALSE
D0721.1	Waterloo Rd	Berlin Rd	Waterloo Rd	0	1.31	1.31	70.0	70.0	Fair	Fair	FALSE
D0722.1	Bellinger Scale Rd	Berlin Rd	Mount Hope Dr	0	2.46	2.46	95.0	95.0	Good	Good	FALSE
D0722.2	Bellinger Scale Rd	Mount Hope Dr	Old Bellinger Scale	2.46	4.18	1.72	90.0	90.0	Good	Good	FALSE
D0722.3	Bellinger Scale Rd	Old Bellinger Scale R	Lacomb Dr	4.18	4.88	0.7	72.5	75.0	Fair	Fair	FALSE
D0723.1	Mount Hope Dr	Bellinger Scale Rd	Golden Valley Dr	0	1	1	70.2	70.0	Fair	Fair	FALSE
D0724.1	Golden Valley Dr	Brewster Rd	Mount Hope Dr	0	4.04	4.04	82.5	85.0	Fair	Fair	FALSE
D0728.1	Berlin Rd	Upper Berlin Rd	McDowell Creek Dr	0	2.06	2.06	70.0	70.0	Fair	Fair	FALSE
D0728.2	Berlin Rd	McDowell Creek Dr	Marks Ridge Dr	2.06	3.85	1.79	87.5	85.0	Good	Good	FALSE
D0729.1	McDowell Creek Dr	Fairview Rd	Pleasant Valley Rd	0	2.92	2.92	77.5	80.0	Fair	Fair	FALSE
D0729.2	McDowell Creek Dr	Pleasant Valley Rd	Berlin Rd	2.92	4.2	1.28	69.8	70.0	Poor	Poor	FALSE
D0730.1	Fairview Rd	US 20	McDowell Creek Dr	1.75	2.65	0.9	70.0	70.0	Fair	Fair	FALSE
D0730.2	Liberty Rd	US 20	Mountain Home Dr	5.36	6.06	0.7	82.7	85.0	Fair	Fair	FALSE
D0730-A.1	Fairview Rd	US 20	Old Santiam Hwy	0	0.02	0.02	40.0	40.0	Poor	Poor	FALSE
D0731.1	Waterloo Rd	Waterloo UGB	US 20	0.49	1.16	0.67	84.1	85.0	Fair	Fair	FALSE
D0732.1	Sodaville Waterloo Rd	Sodaville UGB	US 20	0.31	2.04	1.73	87.5	90.0	Good	Good	FALSE
D0739.1	Rock Hill Dr	Sand Ridge Rd	Stoltz Hill Rd	0	3.56	3.56	82.6	85.0	Fair	Fair	FALSE
D0741.1	Sodaville Mountain Home Rd	Sodaville UGB	Mountain Home Dr	0.36	5.86	5.5	73.5	75.0	Fair	Fair	FALSE
D0742.1	Mountain Home Dr	Northern Dr	Sodaville Mountain	0	4.74	4.74	70.8	70.0	Fair	Fair	FALSE
D0742.2	Mountain Home Dr	Sodaville Mountain	Liberty Rd	4.74	9.27	4.53	71.2	70.0	Fair	Fair	FALSE
D0749.1	Pleasant Valley Rd	Ridgeway Rd	Berlin Rd	0	1	1	82.5	85.0	Fair	Fair	FALSE
D0749.2	Pleasant Valley Rd	Berlin Rd	McDowell Creek Dr	1	4.74	3.74	89.9	90.0	Good	Good	FALSE
D0750.1	Berlin Rd	Marks Ridge Dr	Pleasant Valley Rd	0	1.42	1.42	82.5	85.0	Fair	Fair	FALSE
D0755.1	Old Holley Rd	Sweet Home UGB	OR 228	0.11	4.37	4.26	74.2	75.0	Fair	Fair	FALSE
D0759.1	Upper Calapooia Dr	OR 228	Forest Roads	0	8.65	8.65	42.4	40.0	Poor	Poor	FALSE
D0767.1	Northern Dr	Mountain Home Dr	Brownsville UGB	3.72	5.73	2.01	80.1	80.0	Fair	Fair	FALSE
D0777.1	South Main St	Rock Hill Dr	Lebanon UGB	0	0.22	0.22	87.5	90.0	Good	Good	FALSE
D0801.1	Kingston Lyons Dr	Kingston Jordan Dr	OR 226	0	6.76	6.76	52.5	55.0	Poor	Poor	FALSE
D0813.1	Kingwood Ave	Mill City UGB	Gates UGB	1.8	4.96	3.16	61.1	60.0	Poor	Poor	FALSE
D0830.1	Camp Morrison Dr	OR 226	Lulay Rd	0	0.36	0.36	45.8	45.0	Poor	Poor	FALSE
D0834.1	Lulay Rd	Camp Morrison Dr	Forest Roads	0	2.49	2.49	54.5	55.0	Poor	Poor	FALSE
D0838.1	Fish Hatchery Dr	Larwood Dr	Tree Farm Rd	0	1.54	1.54	75.0	75.0	Fair	Fair	FALSE
D0839.1	Tree Farm Rd	Fish Hatchery Dr	Forest Roads	0	0.86	0.86	75.0	75.0	Fair	Fair	FALSE
D0904.1	McDowell Creek Dr, Sunnyside Rd	North River Dr	Berlin Rd	0	9.49	9.49	68.0	70.0	Poor	Poor	FALSE
D0906.1	Pleasant Valley Rd	Sweet Home UGB	North River Dr	0.14	0.28	0.14	82.9	85.0	Fair	Fair	FALSE
D0906.2	Pleasant Valley Rd	North River Dr	Ridgeway Rd	0.28	1.01	0.73	76.7	75.0	Fair	Fair	FALSE
D0912.1	Quartzville Rd	Old Hufford Dr	Sunnyside Rd	0	0.5	0.5	95.8	95.0	Good	Fair	TRUE
D0912.2	Quartzville Rd	North River Dr	Forest Rd	0.5	11.5	11	95.0	95.0	Good	Fair	TRUE
D0916.1	Wiley Creek Dr	Sweet Home UGB	Forest Roads	0.42	1.6	1.18	82.5	85.0	Fair	Fair	FALSE
D0932.1	Quartzville Rd	US 20	Old Hufford Dr	0	0.62	0.62	96.5	95.0	Good	Fair	TRUE

DKS ID	Safety (num)	Safety (desc)	Existing Conditions Safety (desc)	Future Conditions Safety Changed?	Geometrics (num)	Geometrics (desc)	Existing Conditions Geometrics (desc)	Future Conditions Geometrics Changed?	Traffic Operations (num)	Traffic Operations (desc)	Existing Conditions Traffic Operations (desc)	Future Conditions Traffic Operations Changed?	Pavement (num)	Pavement (desc)	Existing Conditions Pavement (desc)	Future Conditions Pavement Changed?	Access Density (num)	Access Density (desc)	Existing Conditions Access Density (desc)	Future Conditions Access Density Changed?
D0604.1	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	N/A	N/A	FALSE
D0606.1	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	N/A	N/A	FALSE
D0607.1	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0611.1	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0611.2	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0612.1	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0622.1	1.0	Good	Good	FALSE	0.6	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.3	Poor	Poor	FALSE	1.0	N/A	N/A	FALSE
D0628.1	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.9	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0634.1	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	N/A	N/A	FALSE
D0637.1	0.0	Poor	Poor	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.1	Poor	Poor	FALSE	1.0	N/A	N/A	FALSE
D0648.1	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0648.2	0.5	Fair	Fair	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0648.3	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.8	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0650.1	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0663.1	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0669.1	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.7	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0670.1	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.1	Poor	Poor	FALSE	1.0	N/A	N/A	FALSE
D0671.1	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0673.1	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0676.1	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0701.1	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0702.1	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0705.1	1.0	Good	Good	FALSE	0.6	Fair	Fair	FALSE	0.0	Poor	Poor	FALSE	0.0	Poor	Poor	FALSE	1.0	N/A	N/A	FALSE
D0707.1	1.0	Good	Good	FALSE	0.8	Good	Good	FALSE	0.5	Fair	Fair	FALSE	0.5	N/A	N/A	FALSE	1.0	N/A	N/A	FALSE
D0707.2	1.0	Good	Good	FALSE	0.8	Good	Good	FALSE	0.5	Fair	Fair	FALSE	0.5	N/A	N/A	FALSE	1.0	N/A	N/A	FALSE
D0708.1	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0714.1	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0715.1	0.0	Poor	Poor	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0715.2	0.0	Poor	Poor	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0715.3	0.0	Poor	Poor	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0716.1	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0716.2	0.0	Poor	Poor	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0719.1	1.0	Good	Good	FALSE	0.4	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0719.2	0.0	Poor	Poor	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0721.1	0.5	Fair	Fair	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0722.1	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0722.2	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	N/A	N/A	FALSE
D0722.3	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	N/A	N/A	FALSE
D0723.1	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0724.1	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0728.1	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0728.2	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0729.1	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	N/A	N/A	FALSE
D0729.2	0.5	Fair	Fair	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0730.1	0.5	Fair	Fair	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0730.2	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0730-A.1	0.0	Poor	Poor	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0731.1	1.0	Good	Good	FALSE	0.4	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0732.1	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0739.1	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0741.1	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.8	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0742.1	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.6	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0742.2	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.6	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0749.1	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0749.2	1.0	Good	Good	FALSE	0.6	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0750.1	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0755.1	1.0	Good	Good	FALSE	0.1	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.6	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0759.1	0.0	Poor	Poor	FALSE	0.4	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.4	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0767.1	1.0	Good	Good	FALSE	0.4	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0777.1	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0801.1	0.5	Fair	Fair	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0813.1	0.5	Fair	Fair	FALSE	0.1	Poor	Poor	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0830.1	0.0	Poor	Poor	FALSE	0.4	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0834.1	0.5	Fair	Fair	FALSE	0.1	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.6	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0838.1	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0839.1	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0904.1	1.0	Good	Good	FALSE	0.0	Poor	Poor	FALSE	1.0	Good	Good	FALSE	0.3	Poor	Poor	FALSE	1.0	N/A	N/A	FALSE
D0906.1	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0906.2	1.0	Good	Good	FALSE	0.1	Poor	Poor	FALSE	1.0	Good	Good	FALSE	1.0	Good	Good	FALSE	1.0	N/A	N/A	FALSE
D0912.1	1.0	Good	Good	FALSE	1.0	Good	Fair	TRUE	1.0	Good	Good	FALSE	0.6	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0912.2	1.0	Good	Good	FALSE	1.0	Good	Fair	TRUE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0916.1	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	Good	Good	FALSE	0.5	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE
D0932.1	1.0	Good	Good	FALSE	1.0	Good	Fair	TRUE	1.0	Good	Good	FALSE	0.6	Fair	Fair	FALSE	1.0	N/A	N/A	FALSE

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Section I:

Tech Memo 8: Transportation Solutions Identification Process

The contents of Volume 2 represent an iterative process in the development of the TSP. Refinements to various plan elements occurred throughout the process as new information was obtained. In all cases, the contents of Volume 1 supersede those in Volume 2.

MEMORANDUM

DATE: August 16, 2016

TO: Linn County TSP Project Management Team

FROM: Carl D. Springer, P.E., PTOE, DKS Associates
Julie Sosnovske, P.E., DKS Associates

SUBJECT: **Linn County Transportation System Plan |** P14180-010
Task 6.1 Technical Memorandum #8: Transportation Solutions Identification Process

This memorandum describes the recommended process for updating the County's transportation improvement list. We will score candidate projects to demonstrate how well they achieve Linn County's objectives, and we will assign funding priorities accordingly. The outcome will result in "Aspirational" and "Financially Constrained" lists of projects. The Aspirational list includes all projects that the County would implement if funding was not a constraint. The Financially Constrained list is the highest priority subset of the Aspirational list that fit within the level of anticipated funding.

Financially Constrained Planning Process

The Financially Constrained Transportation System Plan will be developed using the following process:

Step 1 - Identify Expected Funding

The first step is to identify the expected amount of funding available through 2040 to build transportation system improvements. The estimates will be broken out by funding responsibility (County, State, or other) and will be based on historic revenue and expenditure data and an assumption that past trends will continue into the future. State funding estimates will be determined in coordination with ODOT Region 2 staff.

Step 2 - Develop Set of Aspirational Projects

This step involves developing an Aspirational list of projects to address the needs of the future transportation system for all modes, as identified in Technical Memorandum #7. At this point, the list of projects will not be constrained by funding. This list will be formed primarily using the following sources:

- Current project list provided by County staff (2015-2020 Capital Improvement Project Draft[1])
- Projects on Linn County facilities (rural area only) that have been identified in other local and state transportation plans
- New projects proposed by the public (or developed by the project team to address concerns raised by the public) through the online comment map, email correspondence, attendance at Community Workshop #1, initial stakeholder feedback at the start of the TSP update process, or other means
- New projects proposed by the County maintenance group or Technical Advisory Committee (TAC) (or developed by the project team to address concerns raised by these two groups)

The preliminary project list will be developed leading up to and during the second series of community workshops. While it is preferable to identify all potential projects during the early phases of the TSP update process, it is understood that some solutions may not be conceived or suggested until later in the process. Any new project ideas developed following the first series of community workshops will be considered for potential inclusion in the remaining solution identifications process on a case-by-case basis.

Step 3 - Initial Screening and Categorization

During the preparation of the preliminary project list, initial screening will be performed, particularly for previously identified projects. This screening will help the project team determine whether the previously identified projects have been completed or additional studies have been performed that have resulted in refined projects. The projects will be categorized into the following groups:

- **Rural Modernization** projects include improvements to County jurisdictional roadways outside of urban areas to meet cross-section and roadway design standards. The focus will be on arterial and collector streets, and projects are expected to include widening travel lanes and paved shoulders, improving pavement structure, and other similar cross-section and pavement improvements. These could also include bike lanes, sidewalks, and/or wider shoulders consistent with roadway standards.
- **Bicycle and Pedestrian** projects include improvements that are primarily designed to serve bicycle and pedestrian needs. This project category focuses on additional improvements such as multiuse trails, pedestrian refuge islands, pedestrian crossings, additional shoulder width beyond minimum standards, and other similar projects.
- **Spot Improvements** will address a variety of safety and operational improvement needs throughout the County. They will focus on specific locations where the roadway will benefit from turn lanes to improve operational and safety needs, adequate clear zone to reduce fixed object collisions, advanced intersection warning signs, and other similar projects.
- **Corridor Improvements** include multimodal corridors where additional travel lanes or more significant improvements are needed to accommodate increased motor vehicle capacity, a systemic safety need along an entire roadway, and other similar projects.

[1] Prepared by C.R. Knoll,P.E., September 10, 2015.

- **Future Studies** include future planning efforts needed to provide additional details for specialized projects or to help with the selection of a preferred alternative when insufficient information or analysis is available through the TSP update process.

  These lists will help facilitate the detailed evaluation process identified in Step 5. As additional projects are identified, additional categories may be considered.

Step 4 - Develop Cost Estimates

Planning level cost estimates will be developed for each Aspirational project and compared to expected funding for projects through 2040 (from Step 1). Each project will be assigned a primary funding responsibility (County, State, or other).

Step 5 - Alternatives Evaluation

Each project from the Aspirational project list will be scored based on the evaluation criteria that was developed in Technical Memorandum #4 (see appendix). In situations where multiple project alternatives are available to address the same or conflicting transportation system needs, the evaluation criteria will be used to identify the project that will best meet the goals of the TSP. The project scoring highest will be retained on the Aspirational project list.

The evaluation criteria focus on compliance with state and local plans and policies, the importance of multi-modal transportation options, engineering design standards, and a desire to maximize positive (and minimize negative) economic, social (livability), and environmental impacts.

Step 6 - Project Prioritization and Funding Plan

Using a combination of evaluation criteria scoring, feedback from project stakeholders, and financial consideration, three tiers of projects will be identified:

- **Financially Constrained Projects** are those projects that can be reasonably expected to be funded and implemented through 2040. These projects are planned to receive the limited County or State revenue sources that are expected to be available through the TSP horizon year.
- **Aspirational Projects** are the desirable projects that would require additional funding sources, such as partnerships or grants. This list is intended to facilitate County efforts to seek additional funding and to be ready for grant opportunities as they become available. Projects on the Aspirational list will be assigned a priority (e.g. high, medium, low) for implementation beyond the funded list of projects (Financially Constrained) based on individual project scores.
- **Development-Related Projects** provide additional capacity and/or connectivity to support development areas. These projects would likely be constructed using development resources.

Appendix:

Evaluation Criteria

Goal 1: Mobility - Provide for efficient motor vehicle travel to and through the county.

Measure of Effectiveness	Evaluation Score	
Street Connectivity Connection enhances system efficiency.	+4	Improves system efficiency
	+2	Improves efficiency of a localized area, but has no impact on efficiency of the system
	0	No change
	-2	Improves efficiency of a localized area, but may detract from the efficiency of another location
	-4	Negative impact on system efficiency
Alternative Local Routes Improvement reduces reliance on state highways for shorter local trips.	+4	Significantly reduces reliance on state highways for shorter local trips
	+2	Reduces reliance on state highways for shorter local trips
	0	No change
	-2	Increases reliance on state highways for shorter local trips
	-4	Significantly increases reliance on state highways for shorter local trips
Daily Traffic Capacity Optimize daily traffic capacity.	+4	Significantly optimizes daily traffic capacity
	+2	Optimizes daily traffic capacity
	0	No change
	-2	Reduces daily traffic capacity
	-4	Significantly reduces daily traffic capacity

Goal 2: Active Transportation - Increase the convenience and availability of pedestrian and bicycle modes.

Measure of Effectiveness	Evaluation Score	
Pedestrian and Bicycle Improvements Adds pedestrian and bicycle improvements that fill in system gaps, improve system connectivity, and are accessible to all users.	+4	Significantly improves pedestrian or bicycle connectivity or accessibility
	+2	Improves pedestrian or bicycle connectivity or accessibility
	0	No change
	-2	Reduces pedestrian or bicycle connectivity or accessibility
	-4	Significantly reduces pedestrian or bicycle connectivity or accessibility
Access to Community Destinations Improve walking and biking connections to community destinations such as schools, parks and social services.	+4	Significantly enhances pedestrian or bicycle access to community destinations
	+2	Enhances pedestrian or bicycle access to community destinations
	0	No change
	-2	Reduces pedestrian or bicycle access to community destinations
	-4	Significantly reduces pedestrian or bicycle access to community destinations
Facility Amenities or Furnishings Improves user experience and comfort to encourage higher levels of walking and biking trips (e.g., provide benches, planter strips, lighting, wayfinding)	+4	Significantly improves facility amenities
	+2	Improves facility amenities
	0	No change
	-2	Negatively impacts facility amenities
	-4	Significantly negative impacts on facility amenities

Goal 3: Transit - Provide transit service and amenities that encourage a higher level of ridership.

Measure of Effectiveness	Evaluation Score	
Transit Access Improves access to transit facilities. Promotes transit as a viable alternative to the single occupant vehicle.	+4	Significantly improves access to transit facilities
	+2	Improves access to transit facilities
	0	No change
	-2	Negatively impacts access to transit facilities
	-4	Significantly negative impacts on access to transit facilities
Transit Amenities or Facilities Improves user experience and comfort to encourage higher levels of transit ridership (e.g., provide benches, shelters, lighting, schedules)	+4	Significantly improves amenities or facilities for transit
	+2	Improves amenities or facilities for transit
	0	No change
	-2	Negative impact on amenities or facilities for transit
	-4	Significantly negative impacts on amenities or facilities for transit

Goal 4: Equity - Provide an equitable, balanced and connected multi-modal transportation system.

Measure of Effectiveness	Evaluation Score	
Multiple Travel Modes Connection or improvement serves a variety of travel modes.	+4	Serves more than two travel modes
	+2	Serves more than one travel mode
	0	Serves single travel mode
	-2	Serves single travel mode, but has a negative impact on another
	-4	Serves single travel mode, but has negative impact on more than one travel mode
Connected System Improves access to all areas of the county.	+4	Significantly increases access to all areas of the county
	+2	Increases access to all areas of the county
	0	No change
	-2	Decreases access to all areas of the county
	-4	Significantly decreases access to all areas of the county
Accommodate all Ages Improves accessibility for all ages and supports travel independence in the county.	+4	Connection or improvement benefits residents of all ages
	+2	Connection or improvement benefits some residents, but not all
	0	No change
	-2	Connection or improvement benefits some residents, but has a negative impact on another age group
	-4	Connection or improvement benefits some residents, but has a negative impact on more than one age group

Goal 5: Heath and Safety - Enhance the health and safety of residents.

Measure of Effectiveness	Evaluation Score	
Safety Improves public safety (e.g., visibility of transportation users in constrained areas, street lighting, emergency vehicle access)	+4	Significantly improves public safety
	+2	Improves public safety
	0	No change
	-2	Has potential for reducing public safety
	-4	Has potential for reducing public safety significantly
Health Encourages active living and physical activity.	+4	Significantly encourages active living and physical activity
	+2	Encourages active living and physical activity
	0	No change
	-2	Discourages active living and physical activity
	-4	Significantly discourages active living and physical activity
Emergency Routes Enhances awareness and reliability of Seismic Lifeline Routes.	+4	Significantly enhances awareness and reliability of Hazardous Materials and Seismic Lifeline Routes
	+2	Enhances awareness and reliability of Hazardous Materials and Seismic Lifeline Routes
	0	No change
	-2	Worsens awareness and reliability of Hazardous Materials and Seismic Lifeline Routes
	-4	Significantly worsens awareness and reliability of Hazardous Materials and Seismic Lifeline Routes

Goal 6: Sustainability - Foster a sustainable transportation system.

Measure of Effectiveness	Evaluation Score	
Environment Minimizes impact to the natural environment.	+4	Significantly enhances the natural environment
	+2	Enhances the natural environment
	0	No change
	-2	Negatively impacts the natural environment
	-4	Negatively impacts the natural environment in significant ways
Improved Roadway Efficiency Implements Transportation Demand Management (TDM) and Transportation System Management (TSM) or other strategies to create greater mobility, reduce auto trips, make more efficient use of the roadway system, and minimize air pollution.	+4	Significantly improves roadway efficiency
	+2	Improves roadway efficiency
	0	No change
	-2	Negatively impacts roadway efficiency
	-4	Significantly negative impact on roadway efficiency

Goal 7: Economy - Ensure the transportation system supports a prosperous and competitive economy.

Measure of Effectiveness	Evaluation Score	
Freight Improves freight access/connectivity and accommodates deliveries.	+4	Significantly improves freight facilities
	+2	Improves freight facilities
	0	No change
	-2	Negatively impacts freight facilities
	-4	Significantly negative impacts on freight facilities
Employment Enhances access to employment.	+4	Significantly enhances travel comfort and convenience to employment in the county.
	+2	Enhances travel comfort and convenience to employment in the county.
	0	No change
	-2	Negative impact on travel comfort and convenience to employment in the county.
	-4	Significantly negative impacts on travel comfort and convenience to employment in the county.

Goal 8: Coordination - Coordinate with local and state agencies and transportation plans.

Measures of Effectiveness	Evaluation Criteria
No measures of effectiveness for Goal 8, this is required for all solutions.	No evaluation criteria for Goal 8, this is required for all solutions.

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Section J:

Tech Memo 9: Transportation Standards

The contents of Volume 2 represent an iterative process in the development of the TSP. Refinements to various plan elements occurred throughout the process as new information was obtained. In all cases, the contents of Volume 1 supersede those in Volume 2.

MEMORANDUM

DATE: February 22, 2017

TO: Linn County TSP Project Management Team

FROM: Carl Springer, P.E., PTOE, DKS Associates
Mat Dolata, P.E., PTP, DKS Associates
Julie Sosnovske, P.E., DKS Associates

SUBJECT: **Linn County Transportation System Plan |** P14180-010
Task 6.2 Technical Memorandum #9: Transportation Standards

This document provides an overview of the transportation standards for Linn County. The County's existing standards and/or guidelines, related to transportation, were reviewed to determine whether they continue to be appropriate or whether revisions are necessary or desired. The following standards or guidelines were addressed:

- Roadway and access spacing
- County Mobility Standards and OHP Mobility Targets
- Functional Classification
- Roadway and shared-use path cross-sections
- Bicycle facility standards and guidelines
- Enhanced pedestrian crossing treatment guidelines
- ITS coordination guidelines
- Traffic Impact Analysis (TIA) guidelines
- Freight routes

The following sections address each of these transportation system components and documents the standards and regulations currently in place, or developed as part of this project, to ensure future development or redevelopment of property is consistent with the vision of the transportation system in Linn County.

Roadway and Access Spacing

The following section identifies standards that apply to roadway access spacing and motor vehicle mobility.

Spacing Standards

Access management is a broad set of techniques that balance the need to provide efficient, safe, and timely travel with the ability to allow access to individual destinations. Proper access management standards and techniques will promote reduced congestion and accident rates, and may lessen the need for additional roadway capacity.

New streets or redeveloping properties must comply with these standards to the extent practical (as determined by the County Road Department). As the opportunity arises through redevelopment, streets and driveways not complying with these standards could improve with strategies such as shared access points, access restrictions (through the use of a median or channelization islands) or closed access points, as feasible.

The County's current access standards are shown in Table 1. These standards reflect the fact that skewed intersections (<45 degree angle) limit visibility. However, the standards do not vary based on other factors such as posted speed or roadway function. The current standards also state that "the proposed placement of the easement of road accesses shall not pose a traffic hazard, taking into consideration the number of nearby access points and geographic conditions of the property" and that "the easement of road access is the only reasonable method of providing access to the parcel".[1]

Table 1: Spacing Standards (Existing)

	Principal Arterial	Minor Arterial	Major Collector	Minor Collector	Local Street
Minimum Distance (Off-set "T" intersections, <45 degree angle)	See Oregon Highway Plan[2]	200 ft.	200 ft.	200 ft.	200 ft.
Minimum Distance (Off-set "T" intersections, >45 degree angle)		125 ft.	125 ft.	125 ft.	125 ft.
Minimum Driveway Spacing (Public Street to Driveway)		150 ft.	150 ft.	150 ft.	150 ft.

[1] Linn County – Access Improvement Standards Code, section 935.150, latest rev. December 12, 2012, and Appendix A to LCC Chapter 935, Section 935.920 Design Standards.
[2] Oregon Highway Plan, 1999, and Oregon Access Management Rule (OAR 734-051). Standards applicable to state highway facilities in Linn County are summarized in Tech Memo #2: Plan Review Summary.

Table 2 recommends new minimum public street intersection and minimum private access spacing standards for streets in Linn County. The new standards vary based on speed and are generally more restrictive than the previous standards. Limiting access, particularly as speeds increase (for example, on arterials or collectors), can provide significant safety benefits. The identified standards will offer consistentency with those in adjacent Lane County.[3]

It is recommended that local agencies apply their adopted roadway and access spacing standards to county owned roadways within an UGB, given that they are generally more restrictive than the standards identified below. Like roadway design and mobility targets, access spacing standards for state highways are determined by ODOT. ODOT spacing standards are defined in the Oregon Highway Plan, OAR 734-051, and ODOT's Highway Design Manual.

Table 2: Spacing Standards (Recommended)

Posted Speed or Travel Speed*	Principal Arterial (County)	Minor Arterial	Major Collector	Minor Collector	Local Street
> 55 mph	700 ft.	475 ft.	475 ft.	325 ft.	100 ft.
50 mph	550 ft.	475 ft.	475 ft.	325 ft.	100 ft.
40 & 45 mph	500 ft.	400 ft.	400 ft.	325 ft.	100 ft.
30 & 35 mph	400 ft.	275 ft.	275 ft.	220 ft.	100 ft.
< 25 mph	400 ft.	200 ft.	200 ft.	150 ft.	100 ft.

Notes: all distances applied as minimums, measured from center to center of adjacent approaches.
ODOT spacing standards (identified in the Oregon Highway Plan) apply for any facility under ODOT jurisdiction.
*County staff may determine the travel speed for roadways without a posted speed. An applicant for access may submit a speed study completed by an Oregon certified engineer or other professional with appropriate expertise, to be considered and approved by the County, if there is disagreement with the County speed determination.

Mobility Targets

Linn County has established a goal of maintaining level of service D or better throughout the arterial and collector system for intersections under their jurisdiction.[4]

Establishing more specific mobility standards for streets and intersections in Linn County will encourage a sustainable transportation system (consistent with the TSP Goal 1: Mobility) by providing a metric to assess the impacts of new development on the existing transportation system. Differentiating performance standards by the type of intersection traffic control is useful to guide improvements only where sufficient traffic volumes require them.

[3] Lane Code, Chapter 15, Section 15.138, Table 2 Road and Driveway Approach Spacing Standards.
[4] Linn County Comprehensive Plan, 907.340 Level of service, Section (B). Latest rev. August 23, 2005.

The TSP update recommends the following mobility standards for streets under the County's jurisdiction. State-owned streets must comply with the mobility targets included in the Oregon Highway Plan. City-owned streets must comply with the mobility targets included in local TSPs.

- **Signalized, All-way Stop, or Roundabout Controlled Intersections:** During the highest one-hour period on an average weekday (typically, but not always the evening peak period between 4 p.m. and 6 p.m.): The intersection, as a whole, must meet Level of Service (LOS) "E" or better and a volume to capacity (v/c) ratio not higher than 0.85.
- **Two-way Stop and Yield Controlled Intersections:** During the highest one-hour period on an average weekday (typically, but not always the evening peak period between 4 p.m. and 6 p.m.): All movements serving more than 20 vehicles shall be maintained at LOS "E" or better and a v/c ratio not higher than 0.90. Mobility targets do not apply to approaches at intersections serving 20 vehicles or fewer during the peak hour.
- **State-owned roadways** must comply with the mobility targets included in the Oregon Highway Plan. The TSP update does not modify these mobility targets.
- **City-owned roadways** should comply with the mobility targets included in local TSPs, as determined by the respective agencies.

Functional Classification

Traditionally, roadways are classified based on the type of vehicular travel they are intended to serve (local versus through traffic). In Linn County, the functional classification of a roadway determines the level of mobility for all travel modes, defining its level of access and usage within the County. The street functional classification system recognizes that individual streets do not act independently of one another but instead form a network that works together to serve travel needs on a local and regional level. From highest to lowest intended usage, the classifications are arterials, collectors, and local streets. Roadways with a higher intended usage generally provide more efficient traffic movement (or mobility) through the county, while roadways with lower intended usage provide greater access for shorter trips to local destinations such as businesses or residences.

- **Principal Arterials** serve inter-regional travel and are all highways under ODOT jurisdiction.
- **Rural Minor Arterials** are intended to act as a corridor connecting many parts of the county and serve traffic traveling to and from state highways. These roadways provide greater accessibility, often connecting to major activity generators and provide efficient through movement for local traffic. In Linn County, 4th Avenue/Main Street/Stayton-Scio Road and Stayton-Scio Drive (between Scio and Stayton) and Diamond Hill Drive (between Harrisburg and I-5) are classified as Rural Minor Arterials.
- **Rural Major Collectors** often connect rural neighborhoods to arterial roadways or state highways. These roadways serve as major neighborhood routes and generally provide more direct property access or driveways than arterial roadways. Examples of Rural Major Collectors include Crabtree Drive/Gilkey Road, Lacomb Drive, Upper Calapooia Drive, Columbus Street/Seven Mile Lane, Denny School Road/Oak Street/Sand Ridge Road, etc.
- **Rural Minor Collectors** often connect rural neighborhoods to major collectors, arterials or state highways. These roadways serve as neighborhood routes and generally provide more

direct property access or driveways than higher level collectors or arterials. Examples of Rural Minor Collectors include Whiskey Butte Road/Wiley Creek Drive, Northern Drive, Sodaville/Mountain Home Road,/Spring Street/Vince Street, Gore Drive/Tennessee Road, Bell Plain Drive/Church Drive/Country Road, and Spicer Drive/Tennessee Road/Tennessee School Road.

- **Local Roadways** provide more direct access to residences without serving through travel in Linn County. These roadways are often lined with residences and are designed to serve lower volumes of traffic.

In addition, ODOT classifies state highways according to it's own functional classification system, as documented in the Oregon Highway Plan. Within Linn County, state highways are classified as Interstate, Statewide, Regional or District Highways (see Tech Memo #2: Plan Review Summary). In addition, some state highways are classified as being part of the State Highway Freight System, Reduction Review Routes, Scenic Byways, or Lifeline Routes.

Functional Classification Changes

The existing functional classifications of streets in Linn County were reviewed to determine consistency with the intended use. Since state highways serve regional travel through the County, they were designated as either principal or minor arterial streets. Streets providing primary access to principal arterial streets are minor arterials. Streets providing primary access to smaller communities and activity generators in Linn County are major or minor collectors. All other streets were classified as locals.

The following changes to modify minor collectors to a major collectors were proposed for the County's existing functional classification system:

- Lake Creek Drive from Peoria Road to Gap Road
- Tangent Drive from Tangent city limits to OR 34
- Knox Butte Drive from Albany city limits to US 20
- Kingston-Lyons Drive from Stayton-Scio Road to OR 226
- Northern Drive from Brownsville city limits to OR 228
- Berlin Road from McDowell Creek Road to Pleasant Valley Road
- Linnwest Drive from OR 99E to Seven Mile Lane

The updated functional classifications are shown in Figure 1.

Figure 1: Linn County Functional Classification

Roadway and Shared-Use Path Cross-Sections

The following section identifies standard cross-sections for roadways and shared-use paths.

Roadway Cross-Sections

Linn County does not have separate design standards for roadway cross-sections. County roadways are constructed to ODOT Highway Design Manual (HDM) standards. Roadway improvements are generally categorized as 4R or 3R, depending on the type and scope of project being considered. Each project type is described below:

- ODOT 4R standards[5] are applicable to arterial, collector, and local streets and should be used for new or reconstruction projects.

  Reconstruction projects upgrade the facility to acceptable geometric standards and as a result, provide a greater roadway width. Projects typically include additional travel lanes or wider shoulders and improve mobility. Typical projects include the following:

  - Alter the original subgrade
  - Addition of a new continuous lane
  - Addition of passing or climbing lanes
  - Channelization for signals or left-turn refuges
  - Structure replacement

  New construction projects are projects constructed in a new location, new alignments, major additions such as interchanges and safety rest areas, or rebuilding an existing facility with major vertical or horizontal alignment changes.

- ODOT 3R standards are also applicable to arterial, collector and local streets and are typically used for maintenance (surface deterioration) projects, safety projects, in constrained environments, or projects with significant funding constraints.[6]

  These are projects that preserve and extend the service life of existing highways and enhance safety, using cost-effective solutions. Typical projects include the following:

  - Extending pavement life by at least 8 years (overlay projects)
  - Safety enhancements
  - Minor widening (widening at spot locations, curves, etc.)
  - Improvements in vertical and horizontal alignment
  - Improvement in superelevation, flattening of sideslopes and removal of roadside hazards

[5] Table 7-2: ODOT 4R/New Rural Arterial Design Standards, Chapter 7 Rural Highway Design (Non-Freeway).
[6] Table 7-3: Minimum 3R Lane and Shoulder Widths - Rural Non-Freeway (Arterials, Collectors, Local Streets).

According to the HDM[7], Specific features not meeting standards (e.g. roadway width, bridge width, horizontal curvature, vertical curvature, stopping sight distance, vertical clearance, ADA, etc.) must be either be upgraded or a design exception documented and approved. For more information, the current version of the following sources could be consulted:

- AASHTO's "A Policy on Geometric Design of Highways and Streets"
- AASHTO's "Roadside Design Guide"
- TRB Special Report #214 "Designing Safer Roads – Practices for Resurfacing, Restoration, and Rehabilitation"

Shared Use Paths

Shared-use paths provide off-roadway facilities for walking and biking travel. Depending on their location, they can serve both recreational and general travel needs. Shared-use path designs vary in surface types and widths. Harder surfaces are generally better for bicycle travel. Widths should provide ample space for both walking and biking and should also be able to accommodate maintenance vehicles. A typical cross-section for shared-use paths is shown in Figure 2. The County may reduce the width of the paved shared-use path to a minimum of eight feet in constrained areas located in steep, environmentally sensitive, rural, historic, or developed areas of the County. In areas with significant walking or biking demand, the paved shared-use path should be 12 feet, otherwise it should be 10 feet wide.

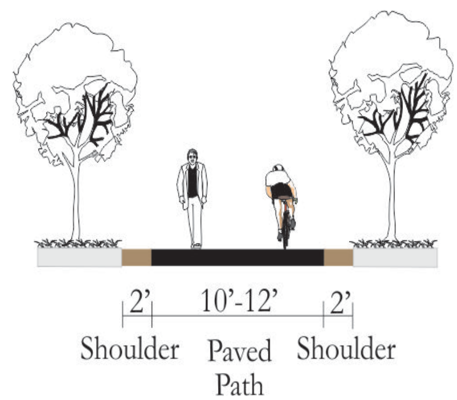

Figure 2: Typical Cross-Section for Shared-Use Paths

ODOT's HDM[8] indicates that separated paths are facilities for pedestrians and/or bicyclists that are physically separated from the roadway and may be referred to as any combination of "shared use" or "multi use" and "path" or "trail". Separated pathways may be constructed on ODOT facilities, as shown in Figure 3.

[7] ODOT's Highway Design Manual, Chapter 7.6.1 General.
[8] 2012 ODOT Highway Design Manual, Chapter 13, Pedestrian and Bicycle, Section 13.7 Separated Paths.

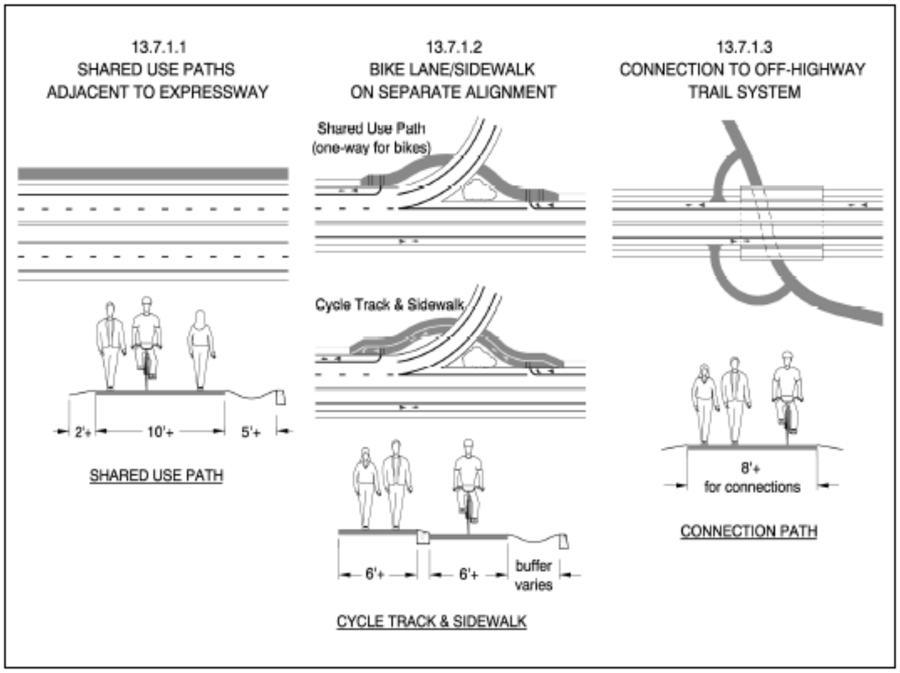

Figure 3: ODOT Highway Design Manual (HDM) Figure 13-6: Types of Separated Paths

In addition, a variety of amenities can make a path inviting to the user. These could include features such as interpretive signs, water fountains, benches, lighting, maps, art, and shelters.

Bicycle and Pedestrian Facilities

Bikeways include shoulder bikeways, shared roadways, bike lanes, and shared-use paths. A shoulder bikeway is a paved shoulder that provides a suitable area for bicycling, reducing conflicts with faster moving motor vehicle traffic.[9] On a shared roadway, bicyclists and motorists share the same travel lanes. There are no standard dimensions for shared roadways. They are common on rural roads and low-volume highways. Shoulder bikeways and shared roadways comprise nearly all of the bicycle facilities within the rural Linn County area.

Bike lanes are a portion of the roadway designated for preferential use by bicyclists. They are marked with pavement stencils and an eight-inch wide stripe. Bike lanes are typically provided on busy urban and suburban streets, but may also be provided on rural highways near urban areas, where there is high bicycle use.

Walkways include sidewalks, paths, and shoulders. Most of the pedestrian facilities in Linn County consist of shoulders, which may be used to serve pedestrians as well as bicyclists in rural areas.[10]

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[9] Oregon Department of Transportation, Bicycle and Pedestrian Design Guide, (2011).
[10] Oregon Department of Transportation, Highway Design Manual, (2003).

The ODOT Bicycle and Pedestrian Guide[11] indicates that shared roadways are suitable for bicycle use on low-volume rural roads and highways. Thus, shared roadways are appropriate for most county roads and some state highways within the study area, with no bicycle needs along these facilities.

On rural roads with high bicycle use or demand, however, the Guide states that roads should include paved shoulders where vehicle speeds and volumes are high. Further, the Guide recommends that the shoulder width standards for rural highways contained in the HDM should be used in determining adequate shoulder widths for bicycle use.

For pedestrians, shoulders are typically the most appropriate type of facility in rural areas, because pedestrian volumes are too low to warrant sidewalks or paths. The ODOT Bicycle and Pedestrian Guide[12] indicates that the shoulder widths recommended in the HDM are generally adequate to accommodate pedestrians.

Street Crossings

Roadways with high traffic volumes and/or speeds in areas with nearby transit stops, residential uses, schools, parks, shopping and employment destinations generally require enhanced street crossings. These crossings should include treatments such as marked crosswalks, high visibility crossings, and curb extensions to improve the safety and convenience of street crossings.

Exceptions include where the connection is impractical due to inadequate sight distance, high vehicle travel speeds, or other factors that may prevent the crossing (as determined by the County).

Any proposed crossing improvements on state highways need to be in compliance with ODOT guidelines and require ODOT approval.

Transportation System Management (TSM)

Linn County has several regional roadway facilities that serve the County (OR 34, US 20, OR 99E, OR 226, OR 22, OR 126) that could benefit from transportation system management (TSM) infrastructure. Before future investments are made along these roadways, designs should be reviewed with County and ODOT staff to determine if communications or other ITS (Intelligent Transportation Systems) infrastructure should be addressed as part of the roadway design/construction.

Traffic Impact Analysis (TIA)

The TSP update is recommending new Traffic Impact Analysis (TIA) requirements to implement Sections 660-012-0045(2)(b) and -0045(2)(e) of the State Transportation Planning Rule (TPR). These sections require the county to adopt mobility targets and a process to apply conditions to land use proposals in order to minimize impacts on and protect transportation facilities.

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[11] Oregon Department of Transportation, Bicycle and Pedestrian Design Guide, (2011).
[12] Oregon Department of Transportation, Bicycle and Pedestrian Design Guide, (2011).

The county's development review process is designed to help the county achieve its goal of managing growth in a responsible and sustainable manner. The applicant for development is required to submit full and accurate information upon which the county staff and elected officials can base decisions. A developer-submitted transportation study prepared by a professional engineer qualified in the traffic engineering field is a critical tool used by the county to assess the expected transportation system impacts associated with a proposed development and the long-term viability of the transportation system.

The County or other road authority with jurisdiction may require a Traffic Impact Analysis (TIA) as part of an application for development, a change in use, or a change in access. Based on information provided by the applicant about the proposed development, the County will determine when a TIA is required and will consider the following when making that determination.

- Changes in zoning or a plan amendment designation;
- Changes in use or intensity of use;
- Projected increase in trip generation of 25 or more trips during either the a.m. or p.m. peak hour, or more than 250 daily trips;
- The road authority indicates in writing that the proposal may have operational or safety concerns along its facility(ies);
- Potential impact to residential areas or local roadways;
- Potential impacts to key walking and biking routes, including, but not limited to school routes and multimodal street improvements identified in the Transportation System Plan;
- Location of existing or proposed driveways or access connections;
- An increase in use of adjacent roadways by vehicles exceeding the 20,000 pound gross vehicle weights by 10 vehicles or more per day;
- The location of an existing or proposed approach or access connection does not meet minimum spacing or sight distance requirements or is located where vehicles entering or leaving the property are restricted, or such vehicles are likely to queue or hesitate at an approach or access connection, creating a safety hazard;
- A change in internal traffic patterns may cause safety concerns; or
- A TIA is required by ODOT pursuant with OAR 734-051.

It is the responsibility of the applicant to provide enough detailed information for the County Engineer, for existing plats, or Community Development Director, for proposed land divisions, to make a Traffic Impact Analysis determination. The required scope of work will be determined in coordination with the County Roadmaster.

Freight Routes

ODOT has classified I-5, US 20, OR 22,and segments of OR 99E and OR 228 as freight routes. In addition, I-5, US 20, OR 99E, OR 22 and OR 126 are classified as Federal Truck Routes. Transportation solutions along freight routes must be accommodating to freight movement. Federal truck routes generally require 12-foot travel lanes. Reduction review routes are highways that require review with any proposed changes to determine if there will be a reduction of vehicle-carrying capacity. I-5, US 20, OR 34, OR 99E, OR 22, and segments of OR 228 and OR 126 are identified as reduction review routes. The TSP update is not recommending any change to the ODOT designations.

Linn County does not presently have a list of designated freight routes on county facilities in Linn County. All minor collectors, major collectors, and arterials could or should be considered freight routes as they would ultimately connect to state highways or I-5.

Linn County has significant agricultural resources and timber resources. As such, all routes carry a significant amount of freight during harvest seasons. Traffic Counts have been completed in Linn County during these time periods which have established significant truck traffic. These counts are stored in the County's IRIS (Integrated Road Information System) database, which includes traffic volumes as well as truck traffic percentages. The County also has other data collected during the past 10 years which can be used to identify where substantial truck traffic indicates the need to provide specific truck traffic accommodations in the configuration and design of road and bridge improvements, or replacements.

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Section K:

Tech Memo 10: Develop Transportation System Solutions

The contents of Volume 2 represent an iterative process in the development of the TSP. Refinements to various plan elements occurred throughout the process as new information was obtained. In all cases, the contents of Volume 1 supersede those in Volume 2.

MEMORANDUM

DATE: June 20, 2017

TO: Linn County TSP Project Management Team

FROM: Carl Springer, PE, PTOE, DKS Associates
Mat Dolata, PE, PTP, DKS Associates
Ben Chaney, EIT, DKS Associates

SUBJECT: **Linn County Transportation System Plan |** P14180-010
Task 7.1 Technical Memorandum #10: Develop Transportation System Solutions

This memorandum describes the transportation system investment options to serve travel needs in Linn County. Included is a list of the identified projects and maps depicting project locations. The projects were identified using a multi-modal network-wide approach focused on addressing existing and future needs identified for the County transportation system.

Aspirational Projects

Aspirational projects (projects to which the county aspires) include all identified projects for improving Linn County's transportation system, regardless of their priority or their likelihood to be funded. The TSP planning process eliminates any project that may not be feasible for reasons other than financial (such as environmental or existing development limitations).

The preliminary set of aspirational transportation projects was developed to reflect a combination of new and previous ideas for the transportation system. The previous ideas that complement the goals and policies of the Linn County TSP Update appear in the following sections, along with other previous projects modified to provide a better fit, and new ideas.

The projects attempt to address the gaps and deficiencies identified in Technical Memorandum #5 (Existing Transportation Conditions)[1] and in Technical Memorandum #7 (Future Transportation Conditions and Needs) [2]. Consultants and staff compared all transportation projects previously envisioned, but not necessarily adopted, with the known gaps and deficiencies of the transportation system.

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[1] Linn County Transportation System Plan Technical Memorandum #5: Existing Transportation Conditions, DKS Associates, May 13, 2016
[2] Linn County Transportation System Plan Technical Memorandum #7: Future Transportation Conditions & Needs, DKS Associates, September 26, 2016

The project list was formed primarily using the following sources:

- Current project list provided by County staff (2015-2020 Capital Improvement Project Draft[3])
- Projects on Linn County facilities (rural area only) that have been identified in other local and state transportation plans
- New projects proposed by the public (or developed by the project team to address concerns raised by the public) through the online comment map, email correspondence, attendance at Community Workshop #1, initial stakeholder feedback at the start of the TSP update process, or other means
- New projects proposed by the County maintenance group or Technical Advisory Committee (TAC) (or developed by the project team to address concerns raised by these two groups)

Project status has been checked against ODOT's Project Tracking Portal, which explains that it "includes STIP and Connect Oregon projects. Most state-managed projects are listed, but emergency repairs, rail and transit project (other than ConnectOregon), and city and county managed projects are not included. The map is updated frequently, but shifts in construction schedules, funding, or regional priorities may cause discrepancies from time to time." The identified projects, especially those from systemic safety plans, have not been field-verified for construction status and will be removed if appropriate as the project team continues to review the project list.

Additional Programs

In addition to the projects identified through the TSP analysis, several programs were identified to address issues related to:

- Flood Closure Roadways
- Slide Area Roadways
- Unreported Crash Locations
- Restricted Bridges –Vertical Clearance
- Restricted Bridges – Weight Restricted
- Geometrically Restricted Roadways
- Fish Passage Barriers

Linn County staff developed lists of locations where these issues have been identified, as shown in the Appendix.

Aspirational Solutions Lists & Maps

[3] Prepared by C.R. Knoll, P.E., September 10, 2015.

The list of solutions includes projects for all of the major modes of travel in the county (motor vehicle, pedestrian, bicycle, and transit). Projects are shown at the end of this memo in tables and figures as follows:

- Walking & Biking – Table 1 & Figures 1
- Bridges – Table 2 & Figures 2
- Corridor Improvements – Table 3 & Figure 3
- Rural Modernization – Table 4 & Figure 4
- Spot Improvements – Table 5 & Figure 5
- Future Studies – Table 6 & Figure 6
- Systemic Safety Improvements – Table 7 & Figure 7

Systemic safety improvement projects are adapted from the ODOT Roadway Departure Safety Implementation Plan (2010), ODOT Intersection Safety Implementation Plan (2012), and ODOT Bicycle and Pedestrian Safety Implementation Plan (2014). Descriptions of systemic safety improvement project types are included in the Appendix.

All projects that are located on State facilities will require approval of the ODOT and will be subject to the design criteria in the state's Highway Design Manual.

Next Steps

The Aspirational project list will be evaluated and prioritized as previously described in Technical Memorandum #8 (Transportation Solutions Identification Process)[4]. The next steps are summarized below.

Develop Cost Estimates

Planning level cost opinions will be developed for each Aspirational project and compared to expected funding for projects through 2040. Each project will be assigned a primary funding responsibility (County, State, or other).

Project Evaluation

Each project from the Aspirational project list will be scored to demonstrate how well they achieve Linn County's objectives based on the previously developed TSP evaluation criteria. In situations where multiple project alternatives are available to address the same or conflicting transportation system needs, the evaluation criteria will be used to identify the project that will best meet the goals of the TSP.

Prioritization

[4] Linn County Transportation System Plan Task 6.1 Technical Memorandum #8: Transportation Solutions Identification Process, DKS Associates, August 16, 2016.

Informed by the project evaluations and cost estimates, consultants and staff will assign funding priorities accordingly. The outcome will result in a draft list of "Financially Constrained" projects. The list will identify the highest priority subset of the Aspirational projects that fit within the level of anticipated funding.

A "Development-Related" subset of projects will also be identified. These projects will provide additional capacity and/or connectivity to support development areas. These projects would likely be constructed and funded using development resources.

The project lists will then be reviewed by the public, project stakeholders, and advisory committees before being incorporated into the Draft TSP.

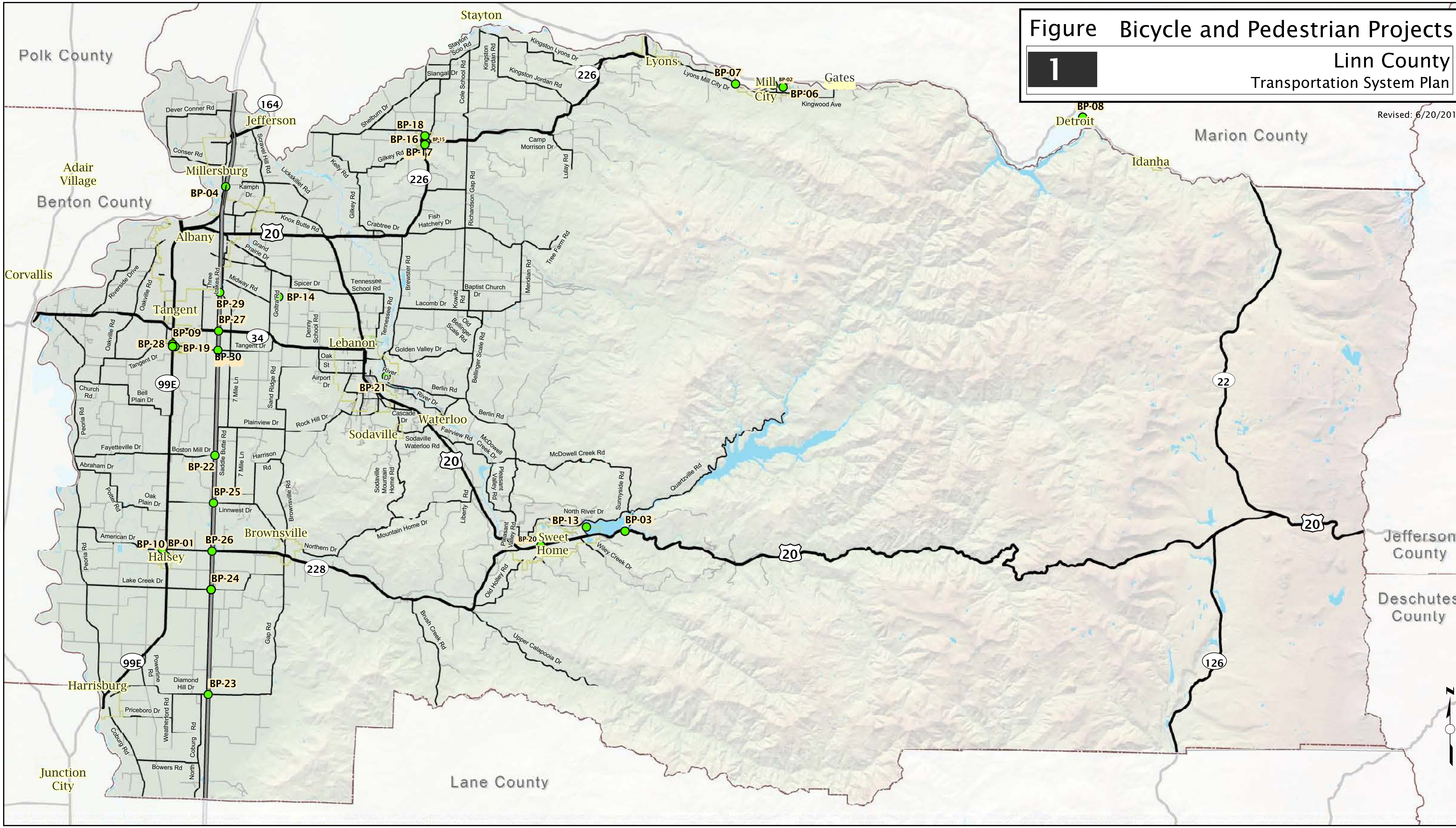
Table 1: Bicycle and Pedestrian Projects					
Project ID	Project Name	Project Description	Jurisdiction	Source	Status
BP-01	Bike Route - Halsey to Peoria	Connect and expand existing bike routes (Brownsville to Lebanon / Sweet Home and from Corvallis/Peoria)	County	Public Outreach and Input	
BP-02	SW Broadway St. - Mill City Urban Street Improvements	Improve Broadway St. in Mill City (1st to 6th) to urban standards, including lighting. Linn County has agreed to a three year plan for improvements	County	Public Outreach and Input, Linn County 2015-2020 Capital Improvement Projects Draft	Linn County 2015-2020 Capital Improvement Projects Draft
BP-03	US 20 - Foster Lake Multi-Use Path	ODOT STIP Project 18853, Multiuse Path along US 20 from 54th Ave. to Riggs Hill Rd., expected bid letting early 2018.	County	Linn County Road Department Reported Needs Meeting	ODOT STIP Project 18853 expected bid letting early 2018.
BP-04	Old Salem Rd. NE - I-5 Exit 235 Undercrossing Bicycle and Pedestrian Facility Improvement (Millersburg)	Provide improved facilities (such as wider paved shoulder or multiuse path) on I-5 undercrossing at Exit 235 serving Old Salem Rd., Murder Creek Dr., Viewcrest, and Millersburg.	State	Linn County Road Department Reported Needs Meeting	
BP-06	Mill City - Canyon Journey Trail Improvements	Trail improvements, including multi-modal river crossing at Kimmel Park.	County	Public Outreach and Input	
BP-07	North Santiam River - water trail system	Provide improved launching areas and periodic stopes with restrooms and camping areas along the North Santiam starting at Detroit Dam. Provides for economic and proper management of water recreation. Coordinate with Marion County and North Santiam Watershed Council.	County	Public Outreach and Input	
BP-08	OR 22 - Recreational Bike Trail from Detroit to Mill City and Beyond	Coordinate with Marion County, creating a recreational bike trail along Highway OR 22 along Santiam River (on the Marion County side) connecting multiple cities and coordinated with the Oregon Scenic Byway.	State & County	Linn County Road Department Reported Needs Meeting	
BP-09	OR 99E / N. Lake Creek Dr. - Improve Pedestrian Access (Tangent)	Pedestrian Access Improvements.	State	Public Outreach and Input	
BP-10	OR 99E - Improve Pedestrian Access (Halsey)	Pedestrian Access Improvements for OR 99E in Halsey	State	Public Outreach and Input	
BP-12	Park and Recreation Master Plan - Wayfinding Signage	Wayfinding signage from County roads to park access, per Linn County Park and Recreation Master Plan	County	Linn County Park and Recreation Master Plan (January, 2009):	
BP-13	Park and Recreation Master Plan - Foster Reservoir Trail	Collaborate to complete 7.5 miles of compressed gravel trail, per Linn County Park and Recreation Master Plan	County	Linn County Park and Recreation Master Plan (January, 2009):	
BP-14	Park and Recreation Master Plan - Lebanon to Albany Regional Trail	Collaborate with local agencies on 10 mile multi-use trail with adjacent soft surface trail, per Linn County Park and Recreation Master Plan. Conceptual alignment to be determined.	County	Linn County Park and Recreation Master Plan (January, 2009):	
BP-15	City of Scio - Crosswalk Safety Evaluation and Improvements at N. 1st St. and Main. (Scio)	Evaluate crosswalk for safety improvements and implement.	County	Public Outreach and Input	
BP-16	City of Scio - Crosswalk Safety Evaluation and Improvements at SE Ash St. and OR 226 (Scio)	Evaluate crosswalk for safety improvements and implement.	State	Public Outreach and Input	
BP-17	City of Scio - Crosswalk Safety Evaluation and Improvements at SW 4th Ave. School Crossing (Scio)	Evaluate crosswalk for safety improvements and implement.	County & State	Public Outreach and Input	
BP-18	City of Scio - Scio High School Pedestrian Path and School Crosswalk Safety Improvements (Scio)	Pedestrian and bicycle access and safety improvements to access Scio High School.	County	Public Outreach and Input	
BP-19	Tangent Dr. / Blackberry Ln. - Systemic Intersection Safety Improvements (Tangent)	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements. Evaluate intersection for Enhanced Signing Treatments.	County	Public Outreach and Input	
BP-20	US 20 through Sweet Home - Pedestrian Access Improvements	Pedestrian Access Improvements.	State	Public Outreach and Input	
BP-21	Lebanon - Berlin Rd River Trail	Trail along South Santian River following Berlin Rd	County	Public Outreach and Input	
BP-22	Boston Mill Rd. / I-5 Overcrossing Bicycle and Pedestrian Facility Improvement	Provide improved facilities (such as continuious wide shoulders or multiuse paths) on I-5 crossing on Boston Mill Dr. serving Shedd, Brownsville, Lebanon, and Sodaville. Will require bridge widening or new multimodal bridge(s).	County & State	Linn County Road Department Reported Needs Meeting	
BP-23	Diamond Hill Dr. / I-5 Overcrossing Bicycle and Pedestrian Facility Improvement	Provide improved facilities (such as continuious wide shoulders or multiuse paths) on I-5 crossing on Diamond Hill Dr. serving Harrisburg and Brownsville. Will require bridge widening or new multimodal bridge(s).	County & State	Linn County Road Department Reported Needs Meeting	
BP-24	Lake Creek Rd. / I-5 Overcrossing Bicycle and Pedestrian Facility Improvement	Provide improved facilities (such as continuious wide shoulders or multiuse paths) on I-5 crossing on Lake Creek Rd. serving Halsey and Brownsville. Will require bridge widening or new multimodal bridge(s).	County & State	Linn County Road Department Reported Needs Meeting	
BP-25	Linn W Dr. / I-5 Overcrossing Bicycle and Pedestrian Facility Improvement	Provide improved facilities (such as continuious wide shoulders or multiuse paths) on I-5 crossing on Linn W Dr. serving Shedd and Brownsville. Will require bridge widening or new multimodal bridge(s).	County & State	Linn County Road Department Reported Needs Meeting	

Table 1: Bicycle and Pedestrian Projects					
Project ID	Project Name	Project Description	Jurisdiction	Source	Status
BP-26	OR 228 / I-5 Overcrossing Bicycle and Pedestrian Facility Improvement	Provide improved facilities (such as continuious wide shoulders or multiuse paths) on I-5 crossing on OR 228 serving Halsey and Brownsville. Will require bridge widening or new multimodal bridge(s).	State	Linn County Road Department Reported Needs Meeting	
BP-27	OR 34 / I-5 Overcrossing Bicycle and Pedestrian Facility Improvement	Provide improved facilities (such as continuious wide shoulder, bike lanes, sidewalks, or multiuse paths) on I-5 crossing, approaches, and signalized interchange terminals.	State	Linn County Road Department Reported Needs Meeting	
BP-28	OR 99E / Tangent Dr. - Improve Pedestrian Access (Tangent)	Pedestrian Access Improvements.	State	Public Outreach and Input	
BP-29	Seven Mile Ln. / I-5 Overcrossing Bicycle and Pedestrian Facility Improvement	Provide improved facilities (such as continuious wide shoulders or multiuse paths) on I-5 crossing, which will require bridge widening or new multimodal bridge.	County & State	Linn County Road Department Reported Needs Meeting	
BP-30	Tangent Dr. / I-5 Overcrossing Bicycle and Pedestrian Facility Improvement	Provide improved facilities (such as continuious wide shoulders or multiuse paths) on I-5 crossing on Tangent Dr. serving Tangent, Lebanon, and Sodaville. Will require bridge widening or new multimodal bridge(s).	County & State	Linn County Road Department Reported Needs Meeting	

Figure 1 Bicycle and Pedestrian Projects

Linn County
Transportation System Plan

Revised: 6/20/2017



Legend

Project List Categories

- Bike/Ped

Interstate
State Highways in UGBs
County Local Roads

Water
Urban Growth Boundary

Table 2: Bridge Projects					
Project ID	Project Name	Project Description	Jurisdiction	Source	Status
BR-01	6th St. - Storm Culvert Replacement (Scio)	Replace Storm Sewer / Culvert on SW 6th St. over Peters Ditch	County	Public Outreach and Input	
BR-02	Bellinger Scale Rd. - Hamilton Creek Bridge Replacement (County Bridge ID 722-0.27, State Bridge ID 11974)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Priority Bridge
BR-03	Belts Dr. - Creek Frontage Rte. Bridge Replacement (County Bridge ID 518-4.10, State Bridge ID 8466)	Priority Bridges to be replaced based on sufficiency rating and scour	County	Linn County Bridge Priority List	Priority Bridge
BR-04	Berlin Rd. - Hamilton Creek Bridge Replacement (County Bridge ID 20B-4.90, State Bridge ID 11964A) Funding Acquired	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Draft 2018-2021 ODOT STIP Project 20318. Priority Bridge, funding acquired, construction scheduled to begin 2020.
BR-05	Berlin Rd. - McDowell Creek Bridge Replacement (County Bridge ID 728-1.72, State Bridge ID 11955A)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Priority Bridge
BR-06	Boston Mill Rd. - Calapooia River Bridge Replacement (County Bridge ID 13-6.96, State Bridge ID 12287A)	Priority Bridges to be replaced based on sufficiency rating and scour	County	Linn County Bridge Priority List	Priority Bridge
BR-07	Boston Mill Rd. - Overflow Bridge Replacement (County Bridge ID 13-5.57, State Bridge ID 13557)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Priority Bridge
BR-08	Boston Mill Rd. - Sodom Ditch Bridge Replacement (County Bridge ID 13-7.46, State Bridge ID 12286)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Priority Bridge
BR-09	Bowers Dr. - Muddy Creek Bridge Replacement (County Bridge ID 234-3.27, State Bridge ID 12398)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Priority Bridge
BR-10	Brewster Rd. - One Horse Slough 024-462 Bridge Replacement	Replace bridge #12738	County	Linn County 2015-2020 Capital Improvement Projects Draft	Linn County 2015-2020 Capital Improvement Projects Draft
BR-11	Bush Garden Dr. - Muddy Creek Bridge Replacement (County Bridge ID 526-0.44, State Bridge ID 12492)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Priority Bridge
BR-12	Clover Ridge Rd. - Truax Creek Bridge Replacement (County Bridge ID 320 0.82, State Bridge ID 12749)	Widen and replace Clover Ridge Rd. bridge over Traux Creek to include sidewalks and bike lanes and stormwater treatment. Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	AAMPO RTP - Final Draft Project List (Financially Constrained), Linn County Bridge Priority List	AAMPO RTP - Final Draft Project List (Financially Constrained), Priority Bridge
BR-13	Coburg Rd. - Curtis Slough Bridge Replacement (County Bridge ID 2A-3.94, State Bridge ID 12271)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Priority Bridge
BR-14	Cochran Creek Dr. - Cochran Creek Bridge Replacement (County Bridge ID 740-0.08, State Bridge ID 12619)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Priority Bridge
BR-15	Cole School Rd. - Bear Creek Bridge Replacement (County Bridge ID 604-1.24, State Bridge ID 12974)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Priority Bridge
BR-16	Cyrus Rd. - Mill Creek Bridge Replacement (County Bridge ID 653-0.88, State Bridge ID 12797A)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Priority Bridge
BR-17	East Bilyeu Creek Dr. - Neal Creek Bridge Replacement (County Bridge ID 831-1.56, State Bridge ID 12951)	Priority Bridges to be replaced based on sufficiency rating and seismic issues - Sub Structure	County	Linn County Bridge Priority List	Priority Bridge
BR-18	Falk Rd. - Spoon Creek Bridge Replacement (County Bridge ID 502-0.56, State Bridge ID 12514)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Priority Bridge
BR-19	Fish Hatchery Dr. - Crabtree Creek Bridge Replacement (County Bridge ID 648-6.77, State Bridge ID 12876)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Priority Bridge
BR-20	Fish Hatchery Dr. - Roaring River Bridge Replacement (County Bridge ID 648-6.80, State Bridge ID 12877)	Replace Bridge	County	Linn County 2015-2020 Capital Improvement Projects Draft	Linn County 2015-2020 Capital Improvement Projects Draft
BR-21	Folsom Rd. - Mill Creek Bridge Replacement (County Bridge ID 651-0.65, State Bridge ID 12792)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Draft 2018-2021 ODOT STIP Project 20306. Priority Bridge, funding acquired, construction scheduled to begin 2019.
BR-22	Fry Rd. - Oak Creek Bridge Replacement (County Bridge ID 336-0.65, State Bridge ID 12616)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Priority Bridge
BR-24	Goldfish Farm Rd. - Cox Creek Bridge Replacement (County Bridge ID 328 0.36, State Bridge ID 12732A)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List, AAMPO RTP - Final Draft Project List (Financially Constrained)	Priority Bridge, AAMPO RTP Final Draft Project List (Financially Constrained)

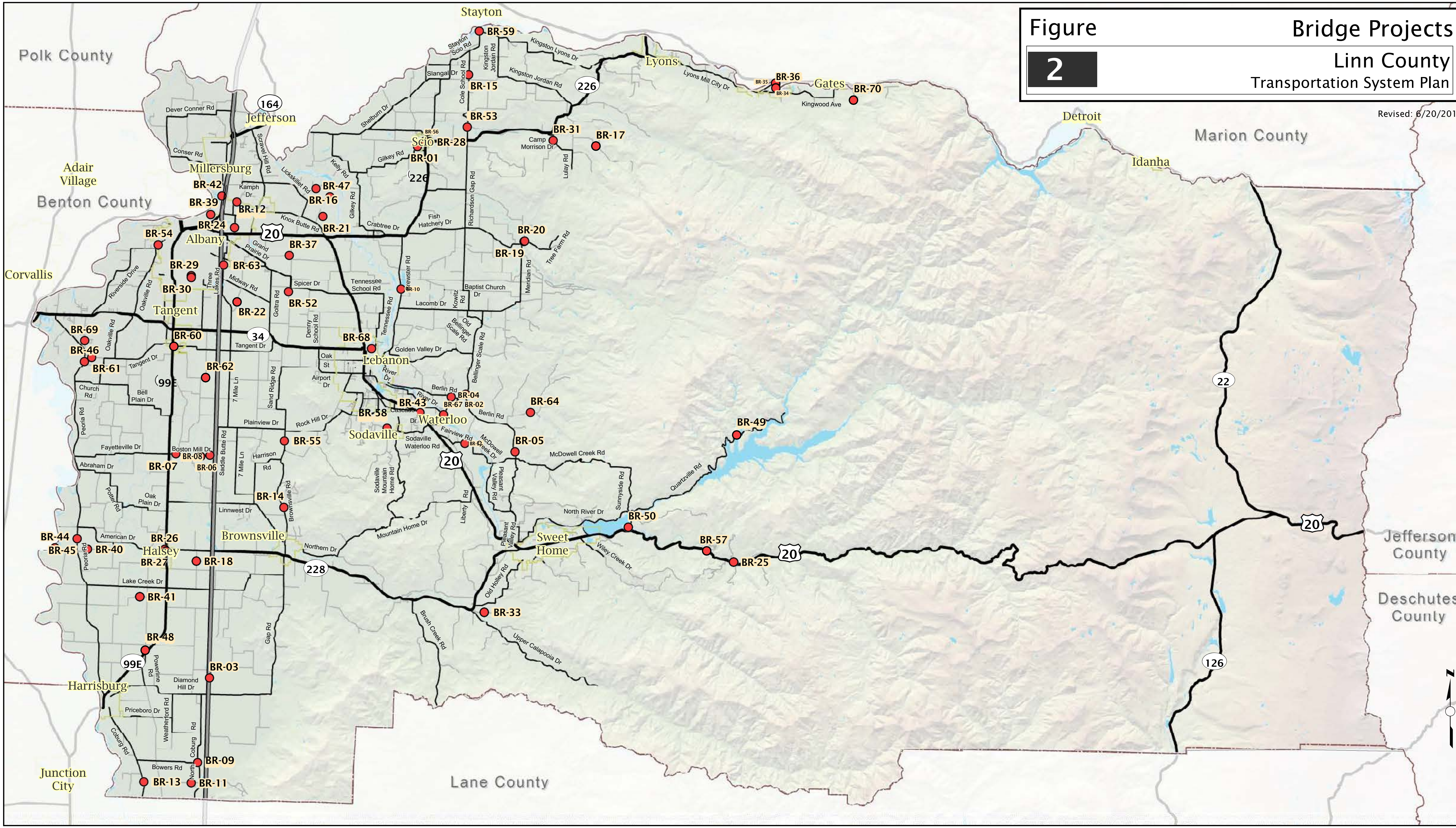
Table 2: Bridge Projects					
Project ID	Project Name	Project Description	Jurisdiction	Source	Status
BR-25	High Deck Rd. - South Santiam River Bridge Replacement (County Bridge ID 913-1.67, State Bridge ID 14025)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Priority Bridge
BR-26	OR 228 - Drainage and Culvert Improvement (Halsey)	Improve culverts	State	Public Outreach and Input	
BR-27	OR 99E - Drainage and Culvert Improvement (Halsey)	Improve culverts	State	Public Outreach and Input	
BR-28	OR 226 - Storm Outlet to Thomas Creek (Scio)	Add storm outlet on OR-226	State	Public Outreach and Input	
BR-29	Lochner Rd. - Oak Creek Bridge Replacement (County Bridge ID 346-1.08, State Bridge ID 12412)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Priority Bridge
BR-30	Lochner Rd. - Oak Creek Bridge Replacement (County Bridge ID 346-1.17, State Bridge ID 12411)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Priority Bridge
BR-31	Lulay Rd. - Neal Creek Bridge Replacement (County Bridge ID 834-0.27, State Bridge ID 12902)	Priority Bridges to be replaced based on sufficiency rating and seismic issues - Super Structure	County	Linn County Bridge Priority List	Priority Bridge, Linn County 2015-2020 Capital Improvement Projects Draft
BR-32	McDowell Creek Dr. - Willow Creek Bridge Replacement (County Bridge ID 729-0.68, State Bridge ID 11950A)	Priority Bridges to be replaced based on sufficiency rating and scour.	County	Linn County Bridge Priority List	Priority Bridge
BR-33	McQueen Dr. - Creek Bridge Replacement (County Bridge ID 756-0.74, State Bridge ID 12858)	Priority Bridges to be replaced based on sufficiency rating, load rating, and scour.	County	Linn County Bridge Priority List	Priority Bridge
BR-34	Mill City - 1st Ave. Bridge over North Santiam River Maintenance and Improvements	Bridge maintenance and improvements, including pedestrian improvements.	County	Public Outreach and Input	
BR-35	Mill City - Wall St. Pedestrian Bridge over North Santiam River Improvements	Pedestrian bridge maintenance and improvements.	County	Public Outreach and Input	
BR-36	Mill City - Storm Drainage Improvements	Storm drainage improvements throughout Mill City	County	Public Outreach and Input	
BR-37	Muller Dr. - Burkhart Creek Bridge Replacement (County Bridge ID 333-1.37, State Bridge ID 12718)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Priority Bridge
BR-39	N. Waverly Dr. - Cox Creek Bridge Replacement (County Bridge ID 324-0.00, State Bridge ID 12752)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Priority Bridge
BR-40	Nicewood Dr. - Lake Creek Bridge Replacement (County Bridge ID 3-4.60, State Bridge ID 12329)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Priority Bridge
BR-41	Nixon Dr. - Little Muddy Creek Overflow Bridge Replacement (County Bridge ID 223-0.37, State Bridge ID 12385)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Priority Bridge
BR-42	Old Salem Rd. - Truax Creek Bridge Replacement (County Bridge ID 367-3.19, State Bridge ID 22C08)	Scheduled to be replaced 2017. Priority Bridges to be replaced based on load rating, scour, sufficiency rating and seismic issues - Super Structure	County	Linn County Bridge Priority List	Scheduled to be replaced 2017, ODOT STIP 18698 and Linn County CIP.
BR-43	Old Santiam Highway - Creek Bridge Replacement (County Bridge ID 730-0.30, State Bridge ID 11936)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Priority Bridge
BR-44	OR 228 - Extension to Connect OR 99E with OR 99W	Connect highways via. new bridge over Willamette, potentially toll-supported. Creates recreational and emergency route from the coast to the mountains, connecting Monroe, Greenberry, Alsea, Bellfountain, Fern, and Philomath.	State	Public Outreach and Input	
BR-45	Peoria Rd. - Lake Creek Bridge Replacement (County Bridge ID 2-12.86, State Bridge ID 12266)	Priority Bridges to be replaced based on sufficiency rating and seismic issues - Super Structure	County	Linn County Bridge Priority List	Priority Bridge
BR-46	Peoria Rd. - Slough Bridge Replacement (County Bridge ID 2-3.06, State Bridge ID 12260)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Priority Bridge
BR-47	Plagmann Dr. - Overflow Bridge Replacement (County Bridge ID 652-1.41, State Bridge ID 12796)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Priority Bridge
BR-48	Powerline Rd. - Muddy Creek Bridge Replacement (County Bridge ID 218-0.15, State Bridge ID 12352)	Funding Acquired. Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Draft 2018-2021 ODOT STIP Project 20311. Priority Bridge, funding acquired, construction scheduled to begin 2019. Linn County 2015-2020 Capital Improvement Projects Draft
BR-49	Quartzville Rd. - Green Peter Reservoir Bridge Replacement (County Bridge ID 912-9.40, State Bridge ID 12911)	Painted in 2015. Priority Bridges to be replaced based on sufficiency rating and seismic issues - Super Structure	County	Linn County Bridge Priority List	Priority Bridge
BR-50	Quartzville Rd. - South Santiam River Bridge Replacement (County Bridge ID 932-0.23, State Bridge ID 93223)	Priority Bridges to be replaced based on sufficiency rating and seismic issues - Super Structure	County	Linn County Bridge Priority List	Priority Bridge, upgraded in 2010

Table 2: Bridge Projects					
Project ID	Project Name	Project Description	Jurisdiction	Source	Status
BR-52	Red Bridge Rd. - Albany-Santiam Canal Bridge Replacement (County Bridge ID 342-2.97, State Bridge ID 12693)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Priority Bridge, Linn County 2015-2020 Capital Improvement Projects Draft
BR-53	Richardson Gap Rd. - Thomas Creek Bridge Replacement (County Bridge ID 637-0.70, State Bridge ID 12965)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Draft 2018-2021 ODOT STIP Project 20314 for repair design scheduled for 2018. Priority Bridge, Linn County 2015-2020 Capital Improvement Projects Draft, Funding Acquired
BR-54	Riverside Dr. - Calapooia River Bridge Replacement or Repair (County Bridge ID 1-1.00, State Bridge ID 43C30)	Priority Bridges to be replaced or HEAVILY REPAIRED based on seismic vulnerability, scour, and sufficiency rating	County	Linn County Bridge Priority List	Priority Bridge
BR-55	Sand Ridge Rd. - Butte Creek Bridge Replacement (County Bridge ID 412-0.61, State Bridge ID 12634A)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Priority Bridge, Linn County 2015-2020 Capital Improvement Projects Draft
BR-56	City of Scio - Thomas Creek Bridge Gateway Treatment (Scio)	Additional Bridge Construction to enhance the bridge over Thomas Creek, assisting with the creation of a “Linn County Entrance” into the Covered Bridge Capital of the West.	County	Public Outreach and Input	
BR-57	Shot Pouch Rd. - South Fork Santiam River Bridge Inspection (County Bridge ID 910-002, State Bridge ID 43C25)	Priority Bridges Off System to be Inspected and Load Rated	County	Linn County Bridge Priority List	
BR-58	Sodaville Cut-off Dr. - Oak Creek Bridge Replacement (County Bridge ID 737-0.45, State Bridge ID 11939)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Priority Bridge
BR-59	Stayton-Scio Dr. - N. Santiam River Overflow Bridge Replacement (County Bridge ID 601-0.28, State Bridge ID 14069)	Priority Bridges to be replaced based on sufficiency rating and seismic issues - Sub Structure	County	Linn County Bridge Priority List	Priority Bridge
BR-60	Tangent Dr. - Lake Creek Trib. Bridge Replacement (County Bridge ID 22-0.08, State Bridge ID 12576) (Tangent)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Priority Bridge
BR-61	Tangent Dr. - Owl Creek Bridge Replacement (County Bridge ID 122-4.14, State Bridge ID 12244A)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Priority Bridge
BR-62	Tangent Loop - Lake Creek Bridge Replacement (County Bridge ID 402-2.50, State Bridge ID 12573)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Priority Bridge
BR-63	Three Lakes Rd. - Albany-Santiam Canal Bridge Replacement (County Bridge ID 337-1.47, State Bridge ID 12591A)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Priority Bridge
BR-64	Upper Berlin Dr. - Hamilton Creek Bridge Replacement (County Bridge ID 903-0.60, State Bridge ID 11958)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Priority Bridge
BR-67	Waterloo Rd. - South Santiam River Bridge Rehabilitation (County Bridge ID 721-129, State Bridge ID 02287A)	Rehabilitate bridge to remove weight restriction for popular truck route.	County	Linn County Road Department Reported Needs Meeting	
BR-68	Wheeler St. - Albany-Santiam Canal Bridge Replacement (County Bridge ID 702-0.04, State Bridge ID 12673)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County	Linn County Bridge Priority List	Priority Bridge
BR-69	White Oak Rd. - Owl Creek Bridge Replacement (County Bridge ID 118-1.31, State Bridge ID 12257A)	Priority Bridges to be replaced based on sufficiency rating and seismic issues - Super Structure	County	Linn County Bridge Priority List	Priority Bridge
BR-70	Morrison Rd - Little Rock Creek culvert	Replace with bridge to remove barriers to safe fish passage	County	Linn County Road Department	
BR-71	Fish Passage Barriers Improvement Projects	Ongoing improvement program to address Fish Passage Barriers. See appendix list for current priorities.	County	Linn County Road Department	See Appendix List
BR-72	Weight Restricted Bridges Improvement Projects	Ongoing improvement program to address Weight Restricted Bridges. See appendix list for current priorities.	County	Linn County Road Department	See Appendix List
BR-73	Restricted Vertical Clearance Bridges Improvement projects	Ongoing improvement program to address Restricted Vertical Clearance Bridges. See appendix list for current priorities.	County	Linn County Road Department	See Appendix List

Figure 2 — Bridge Projects

Linn County Transportation System Plan

Revised: 6/20/2017



Legend

Project List Categories

- Bridges

Interstate
State Highways in UGBs
County Local Roads

Water
Urban Growth Boundary

Linn County Transportation System Plan

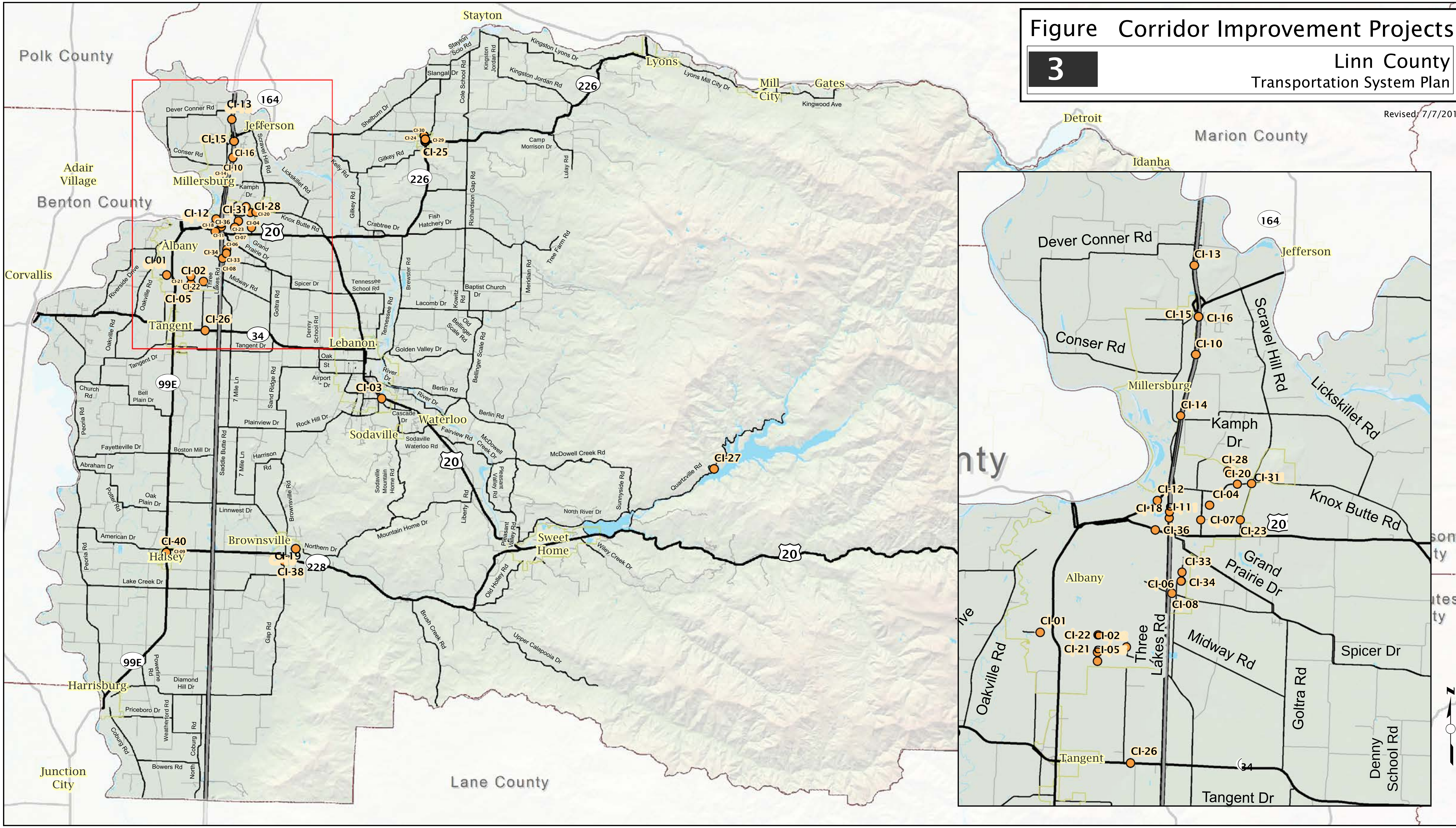
Table 3: Corridor Improvement Projects					
Project ID	Project Name	Project Description	Jurisdiction	Source	Status
CI-01	53rd Avenue Extension (Albany)	New Road or Alignment. Coordinate with City of Albany on project implementation (per Albany TSP)	City	Albany TSP	
CI-02	Columbus St. - Urban Upgrade (Albany)	Urban Upgrade. Coordinate with City of Albany on project implementation (per Albany TSP)	City	Albany TSP	
CI-03	Crowfoot Rd. - Corridor Improvement Project (Lebanon)	Corridor safety project on Crowfoot Rd. from Highway 20 to S. Main Rd. Includes bicycle and pedestrian facilities and connections to nearby school.	County	From Linn County Road Department	
CI-04	Dogwood Avenue Extension (Albany)	New Road or Alignment. Coordinate with City of Albany on project implementation (per Albany TSP)	City	Albany TSP	
CI-05	Ellingson Rd. - Urban Upgrade (Albany)	Urban Upgrade. Coordinate with City of Albany on project implementation (per Albany TSP)	City	Albany TSP	
CI-06	Ellingson Rd. Extension (Albany)	New Road or Alignment. Coordinate with City of Albany on project implementation (per Albany TSP)	City	Albany TSP	
CI-07	Goldfish Farm Rd. - Urban Improvement	Urban improvements to Gold Fish Farm Rd.	County	Linn County 2015-2020 Capital Improvement Projects Draft	Linn County 2015-2020 Capital Improvement Projects Draft
CI-08	Grand Prairie Rd. - Urban Upgrade (Albany)	Urban Upgrade. Coordinate with City of Albany on project implementation (per Albany TSP)	City	Albany TSP	
CI-09	OR 99E - American Dr. to South City Limit, Design Phase. (Halsey)	Design a highway, curb, gutter, landscaping and utility relocation project that addresses in a comprehensive manner OR99E through downtown Halsey. (ODOT STIP Project)	State	2015-2018 ODOT STIP (as amended)	2015-2018 ODOT STIP (as amended). Pending IGA - expected to start by June 2017 and complete within 2 years
CI-10	I-5 - Add travel lanes on mainline	I-5 from South Jefferson to US 20. See "I-5 South Jefferson to US 20 Design Baseline Evaluation Report" for more information. ODOT has subsequent to report split the project into multiple independent phases.	State	I-5 South Jefferson to US 20 Design Baseline Evaluation Report	
CI-11	I-5 - Reconfigure and Improve Connectivity between Knox Butte and US 20 Interchanges	Reconfigure the existing Knox Butte and US 20 interchanges to improve their operation and to add a southbound I-5 access ramp at Knox Butte; improve connectivity between the Interchanges using auxilary lanes on I-5. These closely spaced interchanges function as a connected system. See "I-5 South Jefferson to US 20 Design Baseline Evaluation Report" for more information, particularly figure 2.2-2 and figure 2.2-3. Two operational options for improved connectivity and safety between the interchanges were considered in the design report, auxiliary lanes on I-5 or collector distributor system roads adjacent to I-5. ODOT has subsequent to report split the project into multiple independent phases and is moving forward with a design using auxiliary lanes.	State	I-5 South Jefferson to US 20 Design Baseline Evaluation Report	
CI-12	I-5 - Improve local roadway system connections to the new and improved interchanges	I-5 from South Jefferson to US 20. See "I-5 South Jefferson to US 20 Design Baseline Evaluation Report" for more information. ODOT has subsequent to report split the project into multiple independent phases.	State	I-5 South Jefferson to US 20 Design Baseline Evaluation Report	
CI-13	I-5 - N. Jefferson – N. Albany	1R Grind inlay to remove rutted/reveled section of I-5	State	2015-2018 ODOT STIP (as amended)	2015-2018 ODOT STIP (as amended)
CI-14	I-5 - New Millersburg Interchange	I-5 from South Jefferson to US 20. See "I-5 South Jefferson to US 20 Design Baseline Evaluation Report" for more information. ODOT has subsequent to report split the project into multiple independent phases.	State	I-5 South Jefferson to US 20 Design Baseline Evaluation Report	
CI-15	I-5 - Pavement Rehab N. Albany – Halsey	Grind & Patch Concrete Preservation	State	2015-2018 ODOT STIP (as amended)	2015-2018 ODOT STIP (as amended)
CI-16	I-5 - Pavement Rehab S. Jefferson – N. Albany (NB)	1R Grind/Inlay of NB Lanes	State	2015-2018 ODOT STIP (as amended)	2015-2018 ODOT STIP (as amended)
CI-18	I-5 - South Jefferson Interchange – Santiam Highway Interchange	Begin right-of-way purchase for first phase of major capital project	State	2015-2018 ODOT STIP (as amended)	2015-2018 ODOT STIP (as amended)
CI-19	Kirk Avenue - Urban Upgrades (Brownsville)	Urban streetscape upgrade for Kirk Avenue. Design TBD in consultation with City officials.	County	Public Outreach and Input	
CI-20	Knox Butte Rd. Widening (Albany)	Add Lane(s)/Urban Upgrade. Coordinate with City of Albany on project implementation (per Albany TSP)	County	Albany TSP	
CI-21	Lochner Rd. - Urban Upgrade (Albany)	Urban Upgrade. Coordinate with City of Albany on project implementation (per Albany TSP)	City	Albany TSP	

Table 3: Corridor Improvement Projects					
Project ID	Project Name	Project Description	Jurisdiction	Source	Status
CI-22	Lochner-Columbus Connector (Albany)	New Road or Alignment. Coordinate with City of Albany on project implementation (per Albany TSP)	City	Albany TSP	
CI-23	Goldfish Farm Rd. to Scravel Hill Rd. - New East/West Collector (Albany)	New Road or Alignment. Coordinate with City of Albany on project implementation (per Albany TSP)	City	Albany TSP	
CI-24	NW 4th Avenue - Urban Upgrades (Scio)	NW 4th (Jefferson-Scio Drive) Curb, Gutter, Storm & Sidewalks between Main St. and Clayton Pl.	County	Public Outreach and Input	
CI-25	OR 226 - Urban Upgrades (Scio)	Addition of Curbs, gutters, sidewalks, bike lanes and streetscape improvements on both sides of OR 226 (~3,000 ft.) where they do not currently exist within Scio city limits.	State	Public Outreach and Input	
CI-26	OR 34 - Access Management	Access management for OR 34 (US 20 to County Line)	State	Linn County Road Department Reported Needs Meeting	
CI-27	Quartzville Byway Enhancements	Quartzville Byway Enhancements for recreational accommodations and safety. See Report for more information. Includes PE, ROW, Construction. On Linn County 2015-2020 Capital Improvement Projects Draft. ODOT STIP Project 18445.	County	Linn County Road Department Reported Needs Meeting, ODOT Roadway Departure Safety Implementation Plan, 2015-2018 ODOT STIP (as amended)	2015-2018 ODOT STIP (as amended) Project 18445
CI-28	Santa Maria Avenue Extension (Albany)	New Road or Alignment. Coordinate with City of Albany on project implementation (per Albany TSP)	City	Albany TSP	
CI-29	City of Scio - Pavement Striping Maintenance on County Roads (Scio)	Paint and repair all fog lines, parking spaces, crosswalks, and other striping through Scio on N Main St. and NW/NE 4th St.	County	Public Outreach and Input	
CI-30	City of Scio - Sidewalk Repair and Infill (Scio)	Repair or replace any current sidewalks that are below County or State standards inside Scio city limits on OR 226 (S Main St, SE 1st Ave.), N Main St., NW/NE 4th St.	County	Public Outreach and Input	
CI-31	Scravel Hill Rd. - Urban Upgrade (Albany)	Urban Upgrade. Coordinate with City of Albany on project implementation (per Albany TSP)	County	Albany TSP	
CI-33	Three Lakes Rd. - Urban Upgrade (Albany)	Urban upgrade road improvement from Grand Prairie Rd to US 20. Coordinate with City of Albany on project implementation (per Albany TSP).	City	Albany TSP, Linn County 2015-2020 Capital Improvement Projects Draft	Albany TSP, Linn County 2015-2020 Capital Improvement Projects Draft
CI-34	Three Lakes Rd. - Realignment (Albany)	New Road or Alignment. Coordinate with City of Albany on project implementation (per Albany TSP)	County	Albany TSP	Albany TSP
CI-36	US 20 (East of I-5) - Urban Upgrade (Albany)	Urban Upgrade. Coordinate with City of Albany on project implementation (per Albany TSP)	State	Albany TSP	
CI-38	Washburn St. (aka. Gap Rd.) - Urban Upgrade (Brownsville)	Urban streetscape upgrade for Washburn St. (aka. Gap Road) focused on traffic calming and improving bicycle and pedestrian facilities. Design to be determined in consultation with City of Brownsville, construction likely to be development-driven.	County	Public Outreach and Input	
CI-39	Clover Ridge Rd. - Corridor Improvements	Improvements to Clover Ridge Road going north from Knox Butte Road to AAMPO Boundary with ODOT's closure of Century Drive	County	AAMPO RTP - Final Draft Project List (Financially Constrained)	AAMPO RTP - Final Draft Project List (Financially Constrained)
CI-40	OR 99E - American Dr. to South City Limit, Construction Phase (Halsey)	Construct a highway, curb, gutter, landscaping and utility relocation project that addresses in a comprehensive manner OR 99E through downtown Halsey. (Follow-up to ODOT STIP Project)	State	Follow-up to STIP Project	
CI-41	Tangent Dr. - Urban Corridor Improvements (Tangent)	Add curb, gutter, sidewalk from OR 99E to City Limits	County & Local	AAMPO RTP - Final Draft Project List (Financially Constrained)	AAMPO RTP - Final Draft Project List (Financially Constrained)

Figure 3 Corridor Improvement Projects

Linn County
Transportation System Plan

Revised: 7/7/2017



Legend

Project List Categories

- Corridor Improvements

Interstate
State Highways in UGBs
County Local Roads

Water
Urban Growth Boundary

Linn County Transportation System Plan

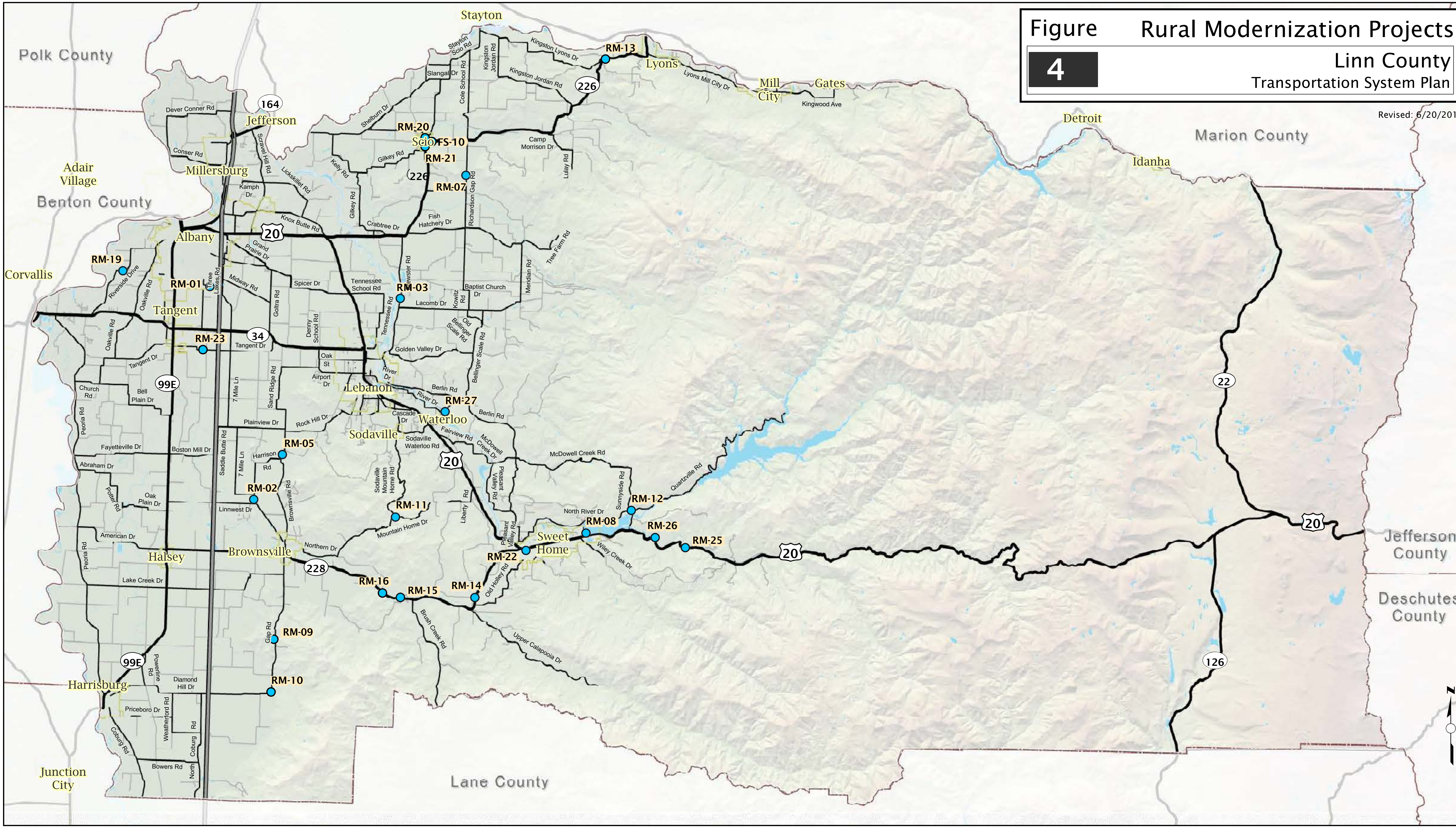
Table 4: Rural Modernization Projects					
Project ID	Project Name	Project Description	Jurisdiction	Source	Status
FS-10	Regional Covered Bridges Multimodal Access Program	Ongoing program to enhance multimodal access to regional covered bridges. Program includes identification of safe and convenient routes from cities to popular covered bridges, addition or improvement of wide paved shoulders with fog lines where needed, wayfinding signage and outreach information.	County	Public Outreach and Input	
RM-01	Seven Mile Ln. - Road Improvements West	Road Widening And Drainage Improvement (Columbus To I-5 Overpass)	County	AAMPO RTP - Final Draft Project List (Financially Constrained), Linn County 2015-2020 Capital Improvement Projects Draft	Linn County 2015-2020 Capital Improvement Projects Draft
RM-02	Seven Mile Ln. - Shoulder Improvements East	Improve shoulders to provide bike-friendly width on Seven Mile Lane, I-5 Overpass to Brownsville.	County	Public Outreach and Input	
RM-03	Brewster Rd. - Rehabilitation	Rehabilitate Brewster Rd. (north of Lacomb Rd.) to remove weight restriction, which limits truck access to this route.	County	Linn County Road Department Reported Needs Meeting	
RM-05	Brownsville Rd. - Corridor Improvement Project	Improvements to Brownsville Rd. including widen lanes and provide paved shoulders to design standards.	County	Linn County 2015-2020 Capital Improvement Projects Draft	Linn County 2015-2020 Capital Improvement Projects Draft
RM-07	East County Freight and Recreational Route Designation and Improvements	Improve shoulders and crossings, and widen roadway where necessary, to provide safe corridor for bicycles, pedestrians, and freight. Provide wayfinding signage and outreach materials. This route is frequently used a recreational route and is a critical for freight access. Route includes: Stayton-Scio Road, Cole School Road, Richardson Gap Road, Kowitz Road, Bellinger Scale Road, Waterloo Road.	County	Linn County Road Department Reported Needs Meeting	
RM-08	Foster Dam Rd. and Parking Area - Safety and Access Improvement Project	Safety and access improvements to Foster Dam Rd. and Parking Area	County	Linn County 2015-2020 Capital Improvement Projects Draft	Linn County 2015-2020 Capital Improvement Projects Draft
RM-09	Gap Rd. / Diamond Hill Rd. - Shoulder Improvements	Improve shoulders to provide safe bike access to scenic route.	County	Linn County Road Department Reported Needs Meeting	
RM-10	Gap Rd. - Improve Sight Distance	Improve sight distance on Gap Rd. north of Diamond Hill Rd., approximately MP 3.1 to MP 3.8.	County	Linn County Road Department Reported Needs Meeting	
RM-11	Mt. Home Dr. - Road Surface Improvement	Pave Mt. Home Dr. between Sodaville Mountain Home Rd. and Northern Dr. to allow bicycle travel between Sweet Home and Brownsville without using OR 228.	County	Public Outreach and Input	
RM-12	North River Dr. and Sunnyside Dr. approaching Quartzville Rd. - Shoulder and Alignment Improvement	Improve roadway for all users (bikes, peds, recreational vehicles, etc.) by providing improved shoulders and realignment to reduce horizontal and vertical curves.	County	Linn County Road Department Reported Needs Meeting	
RM-13	OR 226 near Lyons - Sight Distance Improvements	Between Kingston-Lyons Dr. and Lyons, improve sight distance by providing additional shoulders and clear zone. Evaluate centerline striping for passing zone compliance.	State	Linn County Road Department Reported Needs Meeting	
RM-14	OR 228 / Crawfordsville Dr. (east end of Crawfordsville Dr., near Holley) - Improve Sight Distance and Provide Two-Stage Left Turn Bay	Sight distance improvement. Provide two-stage left turn bay sized for school busses exiting Crawfordsville Dr. heading toward Sweet Home.	State	Linn County Road Department Reported Needs Meeting	
RM-15	OR 228 / Crawfordsville Dr. (west end of Crawfordsville Dr., near Crawfordsville) - Improve Sight Distance	Sight distance improvement	State	Linn County Road Department Reported Needs Meeting	
RM-16	OR 228 / Northern Dr. - Improve Sight Distance	Sight distance improvement	State	Linn County Road Department Reported Needs Meeting	
RM-19	Riverside Dr. - Widening And Improvement (Phase I And Phase II)	Road improvements to Riverside Drive, including widening shoulders, lanes, curves and enhanced curve warning signs.	County	Linn County 2015-2020 Capital Improvement Projects Draft	Linn County 2015-2020 Capital Improvement Projects Draft
RM-20	City of Scio - Shoulder Improvements on County Roads (Scio)	Incorporate wide shoulders inside Scio city limits, with fog lines, where possible on N Main St. and NW/NE 4th St.	County	Public Outreach and Input	
RM-21	Sixth Ave. - Road Improvement (Scio)	Road improvements to Sixth Avenue in Scio	County	Linn County 2015-2020 Capital Improvement Projects Draft	Linn County 2015-2020 Capital Improvement Projects Draft
RM-22	City of Sweet Home - Local Roads Shoulder Improvements	Widen shoulder pavement outside fog line on local road network in Sweet Home	City	Public Outreach and Input	
RM-23	Tangent Dr. - Rural Corridor Improvements	Widen and repave Tangent Dr. from Tangent City Limits to OR 34, including multiuse shoulders.	County	Public Outreach and Input	

Table 4: Rural Modernization Projects					
Project ID	Project Name	Project Description	Jurisdiction	Source	Status
RM-25	US 20 from Quartzville Rd. to Cascadia State Park - Bike Shoulder Improvement	Improve shoulders to provide consistent bike-friendly width on US 20 from Quartzville Rd. to Cascadia State Park.	State	Public Outreach and Input	
RM-26	US 20 near Quartzville Rd. - Horizontal Alignment Fix	Fix Horizontal Alignment. Approx. 2 miles east of Quartzville Rd. intersection	State	Linn County Road Department Reported Needs Meeting	
RM-27	Waterloo Rd. - Roadway and Shoulder Improvements	Widen shoulders (and potentially travel lanes) between City of Waterloo and Berlin Rd. to improve safety and capacity of popular freight and bicycle route.	County	Linn County Road Department Reported Needs Meeting, Public Outreach and Input	

Figure 4 Rural Modernization Projects

Linn County
Transportation System Plan

Revised: 6/20/2017



Legend Project List Categories

Rural Modernization

Interstate
State Highways in UGBs
County Local Roads

Water
Urban Growth Boundary

Linn County Transportation System Plan

Table 5: Spot Improvement Projects					
Project ID	Project Name	Project Description	Jurisdiction	Source	Status
SI-01	Bellinger Scale Rd / Lacomb Dr. - Intersection Safety Project	Bellinger Scale Rd and Lacomb Dr.	County	Existing Conditions	
SI-03	Brewster Rd. / Mt. Hope Dr. - Hotspot Intersection Safety Improvement	Monitor impact of systemic safety improvements and consider need for additional (beyond systemic) hotspot safety improvements. Potential options include: increase sight distance through vegetation removal and maintenance, which may require hillside removal. Other project options include active beacon warning systems, two-stage left off Mt. Hope Drive, left turn lane off Brewster road.	County	Linn County Road Department Reported Needs Meeting	
SI-04	Brownsville Rd. / Washburn Heights Dr. - Intersection Safety Improvements	Improve intersection safety by addressing limited sight distance through improvements such as: remove obstacles to improve intersection sight distance, slow or alert incoming traffic on Brownsville, or realign/relocate intersection to reduce hazard.	County	Linn County Road Department Reported Needs Meeting	
SI-06	Crowfoot Rd. / Cascade Dr. - Intersection Safety Improvements (Lebanon)	Intersection improvement to reduce conflict points and provide safe bicycle and pedestrian access to nearby school, such as a roundabout. Implement in collaboration with City of Lebanon.	County	Linn County Road Department Reported Needs Meeting	
SI-07	Denny School Rd. / Oak St. - Intersection Operations Project	PLACEHOLDER [This unsignalized intersection under County jurisdiction exceeds the LOS D mobility target for the side roadway, although volumes and v/c ratios are relatively low. LOS is based on average delay, and indicates that for a relatively low (less than 20) number of vehicles, peak hour delay will exceed County mobility targets.]	County	Existing Conditions, TSP Future Operations Forecast	
SI-08	Denny School Rd. / Airport Dr. - Traffic Calming	Improve horizontal curve area and implement traffic calming. Potential approaches include additional signing, transverse rumble strips, clear zone object removal.	County	Linn County Road Department Reported Needs Meeting	
SI-09	Ellingson Rd. / Columbus St. (Albany)	Intersection Control Change. Coordinate with City of Albany on project implementation (per Albany TSP)	City	Albany TSP	
SI-10	Fish Hatchery Dr. / Ede Rd. - Improve Sight Distance	Improve sight distance with vegetation removal and maintenance. Potential alternative projects include realigning Ede Rd. to reduce skew; realigning Fish Hatchery Dr. to reduce horizontal curves.	County	Linn County Road Department Reported Needs Meeting	
SI-11	Fish Hatchery Dr. / Richardson Gap Rd. - Additional Hotspot Intersection Safety Improvements	Monitor for safety improvement due to recent systemic safety improvements (flashers, larger signs, rumble strips, solar powered "stop ahead" sign), and consider additional projects if needed. Additional potential improvements include: roundabout or signalization, if warranted	County	Existing Conditions	
SI-12	Ford Mill Rd. / Lacomb Dr. - Intersection Realignment	Realign and reconstruct intersection to a standard stop-controlled "T" intersection. Consider dedicated left and/or right turn lanes as needed, using existing ROW if possible. Prioritize major collector route though signing.	County	Linn County Road Department Reported Needs Meeting	
SI-14	Hume St. - Improvements (Brownsville)	Improve Hume St. to urban standards	County	Public Outreach and Input	
SI-15	Diamond Hill Dr. / I-5 Interchange - Improve Sight Distance	Sight distance improvement at I-5 interchange northbound terminal, including adjacent Belts Dr. intersection. May involve Little Muddy Creek bridge modification,	State	Linn County Road Department Reported Needs Meeting	
SI-16	I-5 Optimization: Add or Upgrade Traffic Cameras	I-5 from County Line to South Boundary of Albany. (MP 236.5 (upgrade) South Jefferson Interchange (new))	State	I-5 Optimization Project	
SI-17	I-5 Optimization: Demand Management Strategies	I-5 from County Line to South Boundary of Albany.	State	I-5 Optimization Project	
SI-18	I-5 Optimization: Incident Response Program	I-5 from County Line to South Boundary of Albany.	State	I-5 Optimization Project	
SI-19	I-5 Optimization: Ramp Metering (Exit 234 NB On-Ramp)	I-5 from County Line to South Boundary of Albany. (Exit 234 NB On-Ramp, US 20 Interchange)	State	I-5 Optimization Project	
SI-20	Kamph Dr. / Murder Creek Dr. / Shady Bend Rd. - Intersection Improvement	Provide enhanced advanced notification signage on all approaches and provide stop bar and fog line striping.	County	Linn County Road Department Reported Needs Meeting	
SI-21	Kirk Avenue - Improve Cemetery Access (Brownsville)	Improve access to Brownsville Pioneer Cemetery	County	Public Outreach and Input	
SI-22	Knox Butte Rd. / Scravel Hill Rd. - Intersection Safety Project	Monitor for safety improvement due to recent advance warning signs and other systemic improvements. Possible further actions: active beacons or enhanced signage, transverse rumble strips, realign intersection, install roundabout or traffic signal.	County	Existing Conditions	

Table 5: Spot Improvement Projects					
Project ID	Project Name	Project Description	Jurisdiction	Source	Status
SI-23	Lacomb Rd. / Bond Rd. - Intersection Safety Improvements	Realign intersection to remove skew. Improve sight distance via vertical curve flattening, or improve awareness using enhanced signing or active beacons.	County	Linn County Road Department Reported Needs Meeting	
SI-24	Miller Cemetery / Shelburn Dr. - Intersection Improvement	Change traffic control to 4-way stop.	County	Public Outreach and Input	
SI-25	Oakville Rd / Tangent Dr. - Intersection Safety Project	Oakville Rd and Tangent Dr.	County	Existing Conditions	
SI-26	Old Holly Rd. (aka Alder Street) / 8th Avenue - Intersection Improvement	Intersection modification to improve sight distance.	County	Public Outreach and Input	
SI-27	Old Mill Rd. - Commercial Improvement (Tangent)	Improvements to accommodate commercial activity	City	Public Outreach and Input	
SI-28	OR 164 / Scravel Hill Rd. - Intersection Operations Project	PLACEHOLDER [Forecasts indicate that by 2040 this unsignalized intersection will see high growth in traffic volumes as the primary connection between Millersburg and Jefferson. This growth in conflicting flow is forecasted to result in a v/c for the side street approach that slightly exceeds mobility targets.]	State	Existing Conditions, TSP Future Operations Forecast	
SI-29	OR 226 / Brewster Rd. - Additional Intersection Safety Improvement	Monitor outcomes from systemic safety improvements. As needed, additionally enhance driver awareness of stop sign, through improvements such as including flashers, larger signs, transverse rumble strips, and/or solar powered "stop ahead" sign	State & County	Linn County Road Department Reported Needs Meeting	
SI-30	OR 226 / Fish Hatchery Dr. - Additional Intersection Safety Improvements	Monitor outcomes from systemic safety improvements. As needed, additionally enhance driver awareness of stop sign, through improvements such as including flashers, larger signs, transverse rumble strips, and/or solar powered "stop ahead" sign	State & County	Linn County Road Department Reported Needs Meeting	
SI-32	OR 226 / Kingston Jordan Rd. - Sight Distance Improvements	Improve sight distance onto OR 226 through vegetation removal.	State	Linn County Road Department Reported Needs Meeting	
SI-33	OR 226 / McCully Mountain Rd. - Intersection Improvement (Lyons)	Improve sight distance or provide improved advance warning.	State	Linn County Road Department Reported Needs Meeting	
SI-34	OR 226 / Richardson Gap Rd. - Additional Intersection Safety Improvements	Monitor outcomes from systemic safety improvements. As needed, additionally enhance driver awareness of stop sign, through improvements such as including flashers, larger signs, transverse rumble strips, and/or solar powered "stop ahead" sign	State & County	Linn County Road Department Reported Needs Meeting	
SI-35	OR 228 / Fern Ridge Rd. and Rowell Hill Rd. (north end) - Shoulder and Sight Distance Improvement	Widen shoulder on OR 228 at curves near Fern Ridge Rd. / Rowell Hill Rd., remove trees west of intersection to improve sight distance.	State	Linn County Road Department Reported Needs Meeting	
SI-44	OR 34 / Riverside Dr. - Improve Alignment	Adjust road alignment to improve sight distance and encourage lower speeds on approach.	State & County	Linn County Road Department Reported Needs Meeting	
SI-47	OR 99E / Railroad Crossing - Railroad Crossing Improvements (Harrisburg)	Monitor driver compliance of recent improvements at railroad crossing just north of Peoria Rd. Consider additional enhancements if poor compliance or crashes continue, such as transverse rumble strips.	State	Linn County Road Department Reported Needs Meeting	
SI-48	Diamond Hill Rd. / Powerline Rd. - Additional Hotspot Intersection Safety Improvements	Monitor for safety improvement due to recent systemic safety improvements, consider additional improvements if needed. Possible further improvements: additional sign and marking enhancements, realign intersection, install roundabout, install transverse rumble strips.	County	Linn County Road Department Reported Needs Meeting	
SI-49	Richardson Gap Rd. / Cole School Rd. / Ridge Dr. - Intersection Improvements	Realign intersection including full redesign and rebuild to provide improved sight distances and better turning radius for all movements, especially the north-south major collector flow.	County	Linn County Road Department Reported Needs Meeting	
SI-50	Ridgeway Rd. / Marks Ridge Rd. - Intersection Realignment	Realign intersection to improve sight distance and reduce conflicts, while maintaining truck-friendly geometry if needed. Potential design is an offset-T intersection, with 4-way stop control.	County	Linn County Road Department Reported Needs Meeting	
SI-52	Riverside Dr. / Oakville Rd. - Improve Sight Distance	Manage vegetation to the south and north of intersection. Note, limited ROW and vegetation are on private property.	County	Linn County Road Department Reported Needs Meeting	
SI-53	Rock Hill Dr. / South 5th St. - Intersection Improvements	Intersection Improvements	County	Linn County Road Department Reported Needs Meeting	
SI-54	Rock Hill Dr. / South Main Rd. - Improve Sight Distance	Improve sight distance at intersection. Project options include vegetation removal or vertical curve flattening.	County	Linn County Road Department Reported Needs Meeting	

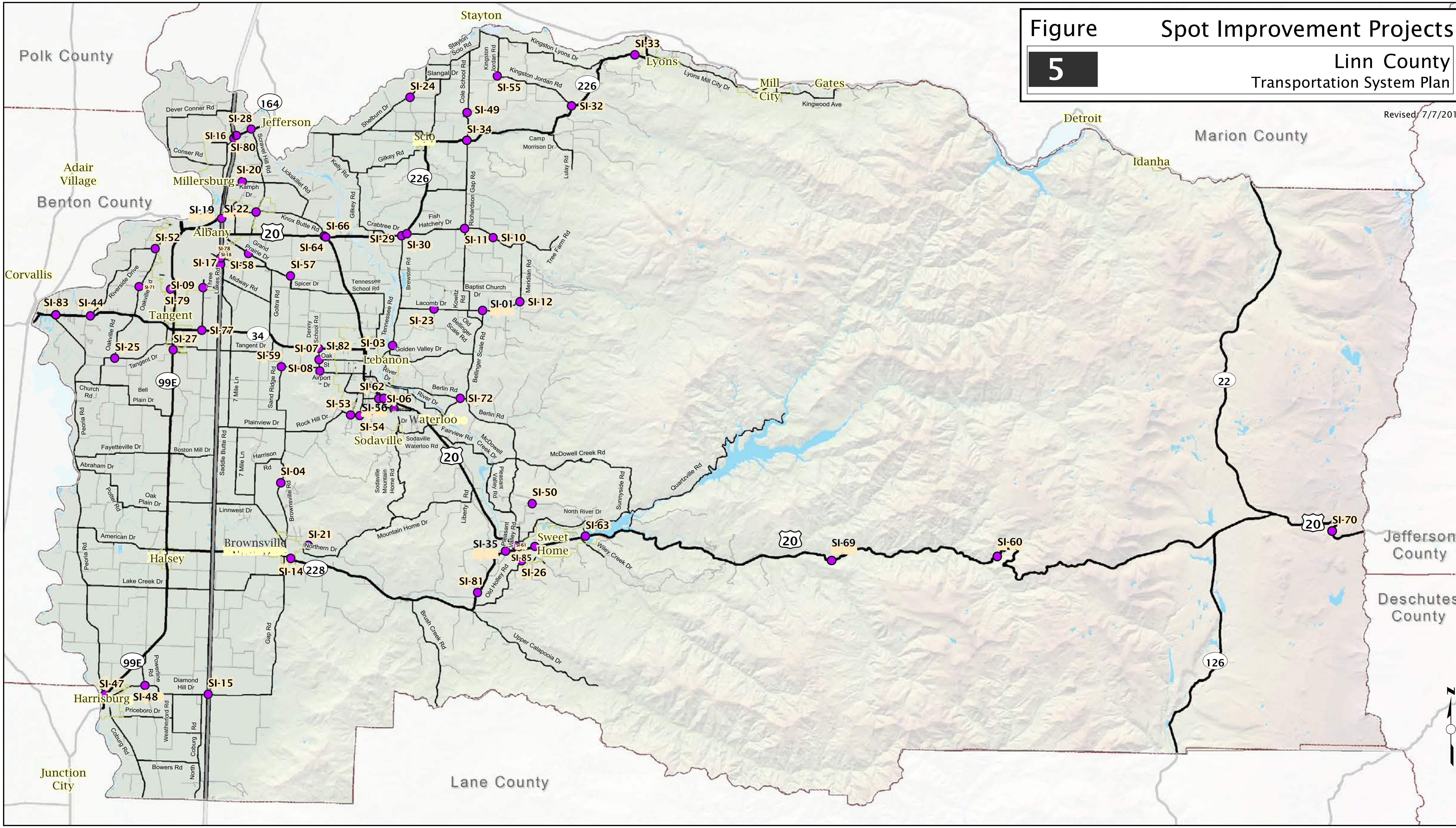
Table 5: Spot Improvement Projects					
Project ID	Project Name	Project Description	Jurisdiction	Source	Status
SI-55	Sandner Dr. / Kingston Jordan Dr. - Intersection Realignment and Safety Improvements	Realign intersection to remove skew. Improve driver awareness using systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements, Enhanced Signing Treatments.	County	Linn County Road Department Reported Needs Meeting	
SI-56	Sodaville Rd. / Cascade Dr. / McCraven Ln. - Additional Hotspot Intersection Safety Improvements	Monitor for impact of systemic safety improvements, and consider converting intersection to 4-way stop and realigning McCraven Ln. if safety performance does not improve.	County	Linn County Road Department Reported Needs Meeting	
SI-57	Spicer Dr. / Engle Rd. - Intersection Realignment	Realign intersection, convert to stop-controlled.	County	Linn County Road Department Reported Needs Meeting	
SI-58	Spicer Dr. / Kennel Rd. - Additional Hotspot Intersection Safety Improvement	Monitor for impact of systemic safety improvements, and consider intersection realignment if safety performance does not improve.	County	Linn County Road Department Reported Needs Meeting	
SI-59	Steckley Rd. / Sand Ridge Rd. - Intersection Improvement	Improve driver understanding of intersection traffic control. Options include a realignment that provides a more traditional stop-controlled "T" intersection, with dedicated turn or slip lanes as needed.	County	Linn County Road Department Reported Needs Meeting	
SI-60	US 20 - Lower Sunken Grade Slide Repair	Provide a permanent fix to the slide area (M.P. 55.4)	State	2015-2018 ODOT STIP (as amended)	ODOT STIP Project 19726 is planned for bid letting in late 2018.
SI-61	US 20 - Sweet Home Police Department Access Improvements	Access improvements	State	Public Outreach and Input	
SI-62	US 20 / Crowfoot Rd. - Intersection Improvement	Intersection improvement to reduce conflict points and consolidate access points on US 20. Implement in collaboration with City of Lebanon.	State & County	Linn County Road Department Reported Needs Meeting	In Lebanon UGB on State Hwy.
SI-63	US 20 / Foster Dam Rd. - Railroad Undercrossing Improvement	Improve Railroad crossing (AERR Trestle) to remove height restriction. Coordinate with results of Project BP-3 (ODOT STIP Project 18853, Multiuse Path along US 20 from 54th Ave. to Riggs Hill Rd.), expected bid letting early 2018.	State	Linn County Road Department Reported Needs Meeting	
SI-64	US 20 / Knox Butte Dr. - Intersection Operations Project	PLACEHOLDER [A higher-growth unsignalized intersection, left turns from Knox Butte Drive onto US 20 are forecasted to grow approximately 50% over existing conditions and, combined with high conflicting flow, are forecast to push the v/c above mobility targets for that movement by 2040.] Improve side street delay, potentially using a combined solution with OR 226, such as a combined 2-part roundabout. Lakeview Slough provides environmental constraints. Alternative project is to facilitate two-stage left turns off the side street. Combined or stand-along safety projects potentially include: Increase sight distance, install right-turn lane on major road approach, reduce driveway density, increase distance to rural roadside obstacles.	State & County	Existing Conditions, ARTS 150% List suggestions.	
SI-66	US 20 / OR 226 - Intersection Operations Project	PLACEHOLDER [Although the side street left turn volumes are low at this unsignalized intersection, the conflicting flow is high enough that the v/c is forecast to exceed mobility targets for that movement by 2040.] Improve safety and reduce side street delay, possibly using a combined solution with Knox Butte Drive, such as a combined 2-part roundabout. Lakeview Slough provides environmental constraints. Alternative project is to facilitate two-stage left turns off the side street.	State	Existing Conditions	
SI-69	US 20 near OR 126 - Safety Improvement	Safety improvement between Canyon Creek Rd. and OR 126 (McKenzie Highway)	State	Linn County Road Department Reported Needs Meeting	
SI-70	US 20 near OR 22 - Safety Improvement	Weather-related safety improvement approximately four miles east of Santiam Junction / OR 22	State	Linn County Road Department Reported Needs Meeting	
SI-71	Walnut Dr. / Oakville Rd. - Intersection and Roadway Improvement	Improve intersection and roadway for freight and safety	County	Linn County 2015-2020 Capital Improvement Projects Draft	Linn County 2015-2020 Capital Improvement Projects Draft
SI-72	Waterloo Rd. / Berlin Rd. - Intersection Realignment	Realign intersection to traditional stop-controlled "T" geometry. Improve sight distance with vegetation removal and maintenance. Design should accommodate heavy bicycle and freight (log trucks) traffic.	County	Linn County Road Department Reported Needs Meeting	
SI-73	County High Crash Rate Intersection List Program	Ongoing improvement program to address high crash rate intersections. See appendix list for current priorities.	County	Linn County Road Department Reported Needs Meeting	See Appendix List
SI-74	Slide Area Maintenance List Program	Ongoing improvement program to address slide areas. See appendix list for current priorities.	County	Linn County Road Department Reported Needs Meeting	See Appendix List

Table 5: Spot Improvement Projects					
Project ID	Project Name	Project Description	Jurisdiction	Source	Status
SI-75	Restricted Roads Improvements List Program	Ongoing improvement program to address geometrically access restricted roads. See appendix list for current priorities.	County	Linn County Road Department Reported Needs Meeting	See Appendix List
SI-76	Flood Closures Maintenance List Program	Ongoing improvement program to address flood closures and high-water areas. See appendix list for current priorities.	County	Linn County Road Department Reported Needs Meeting	See Appendix List
SI-77	Columbus St. - OR 34 Access Modifications	Change Columbus St. access from OR 34 to right-in-right-out and redirect other traffic to Seven Mile Ln.	County	AAMPO RTP - Final Draft Project List (Financially Constrained)	AAMPO RTP - Final Draft Project List (Financially Constrained), ODOT STIP Project 19662 includes this modification and is scheduled for construction late 2017/early 2018.
SI-78	Grand Prairie Rd. - I-5 Bridge Widening	Widen I-5 bridge to provide safe passage for Bicycles and Pedestrians	State	AAMPO RTP - Final Draft Project List (Financially Constrained)	AAMPO RTP - Final Draft Project List (Financially Constrained)
SI-79	LBCC Transit Center	Transit Center at LBCC Campus (Linn County funded portion) - including multimodal and bicycle access into the LBCC campus,	County & Local	AAMPO RTP - Final Draft Project List (Aspirational)	AAMPO RTP - Final Draft Project List (Aspirational)
SI-80	OR 164 / I-5 Northbound Ramps - New Traffic Signal	Install new signal, when warranted, per AAMPO RTP.	State	AAMPO RTP - Final Draft Project List (Aspirational)	AAMPO RTP - Final Draft Project List (Aspirational)
SI-81	OR 228 / Fern Ridge Rd. (south end) - Sight Distance Improvement	Improve sight distance.	State	Public Outreach and Input	
SI-82	OR 34 / Denny School Rd. - Operations Improvement	PLACEHOLDER [A busy and higher-growth unsignalized intersection, this intersection has improvements that allow for two-stage left turns off of Denny School Road (allowing vehicles to move from the side street to the median in the first stage and from the median to the travel lane in the second stage – allowing drivers to use traffic stream gaps in one direction at a time to facilitate their turn). Even so, the side street movements have a v/c ratio exceeding mobility targets under existing conditions and demand is forecast to exceed capacity by 2040.]	State	TSP Future Operations Forecast	
SI-83	OR 34 / Peoria Rd. - Operations Improvement	PLACEHOLDER [A very busy signalized intersection, this intersection's v/c exceeds mobility targets under existing conditions and will continue to get more congested as traffic volumes grow.]	State	TSP Future Operations Forecast	
SI-85	US 20 / Pleasant Valley Rd. (Sweet Home) - Additional Hotspot Intersection Safety Improvements	Monitor impact of systemic safety improvements and consider need for additional (beyond systemic) hotspot safety improvements. Potential options include: Enhanced Signing Treatment, Roundabout, Traffic Signal pending engineering investigation and warrant.	State	Public Outreach and Input	

Figure 5 Spot Improvement Projects

Linn County
Transportation System Plan

Revised: 7/7/2017



Legend

Project List Categories

Spot Improvements

Interstate

State Highways in UGBs

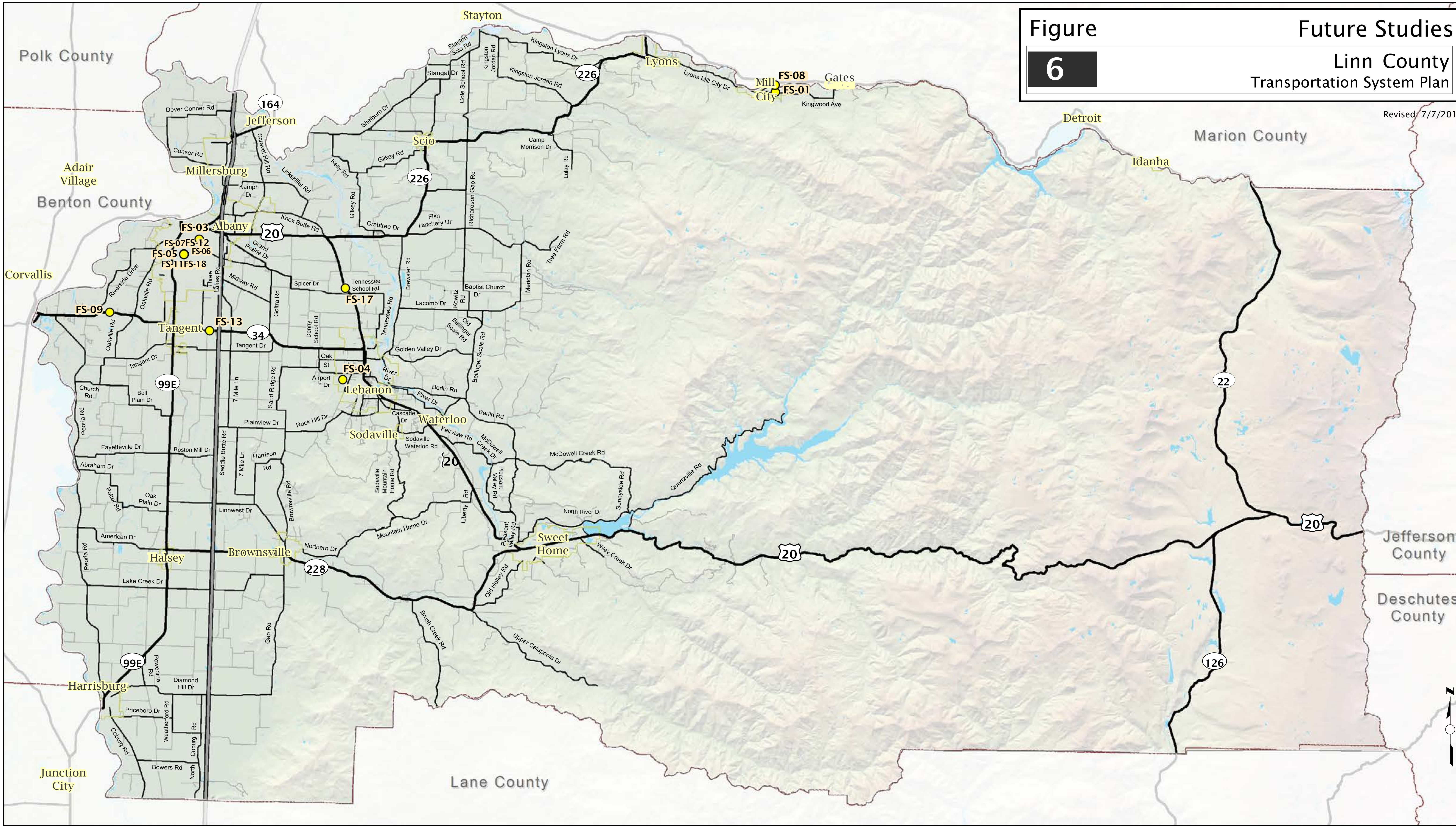
County Local Roads

Water

Urban Growth Boundary

Linn County Transportation System Plan

Table 6: Future Studies					
Project ID	Project Name	Project Description	Jurisdiction	Source	Status
FS-01	1st Avenue - Mill City Post Office Safety Review	Safety review to identify improvements for all modes accessing the Mill City Post Office.	County	Public Outreach and Input	
FS-03	Cascades West COG - Rideshare Program	Support Cascades West COG Rideshare Program	MPO	2015-2018 ODOT STIP (as amended)	2015-2018 ODOT STIP (as amended)
FS-04	Lebanon Bypass	4-lane alternative route (bypass) on west side of Lebanon. Alignment undetermined.	County	Public Outreach and Input	
FS-05	Linn County - TDM Programs	Transportation Demand Management Programs (Ongoing)	County	2015-2018 ODOT STIP (as amended)	2015-2018 ODOT STIP (as amended)
FS-06	Maintenance Procedures - Bike Friendly Chip Seal	When chip seal is used, bicycle advocates prefer smaller size rocks and that treatment extends fully through shoulders, preferably at least 6 feet everywhere.	County	Public Outreach and Input	
FS-07	Maintenance Procedures - More frequent roadway sweeping with bike priority route plan	Provide more frequent roadway sweepings, and identify a set of priority bike routes for maintenance.	County	Public Outreach and Input	
FS-08	Mill City - Coordination of Paving Projects for City Overlay Work	Coordination with County to maximize maintenance efficiency.	County	Public Outreach and Input	
FS-09	OR 34 - Road Safety Audit	Road Safety Audit for OR 34 (US 20 to County Line) to identify targeted safety countermeasures appropriate for the corridor.	State	Existing Conditions Memo, Linn County Road Department Reported Needs Meeting	Funding source uncertain.
FS-11	Promote Enhanced Transit Service for Small Communities in Linn County	Promote Enhanced Transit Service for Small Communities in Linn County through interagency and private/public partnerships. Opportunities include expanded fixed route service area and frequency, as well as promotion of on-demand transit or integration with transportation network companies.	County	Linn County Road Department Reported Needs Meeting	
FS-12	Regional Transit Coordination	Linn County to support improved regional transit coordination.	County	Public Outreach and Input	
FS-13	Scenic Byway Coordination - Marys Peak to Pacific	Coordinate with upcoming designation of new "Mary's Peak to Pacific" scenic byway along Highway 34 from I-5 to Highway 101 at the coast, maximizing economic opportunity and ensuring maintenance and safety standards. Corridor management plan includes site-specific interpretive opportunities and action plan, including the establishment of interpretive Byway portal sites on the east end of the Byway.	State & County	From Linn County Road Department	
FS-17	US 20 Road Safety Audit	Road Safety Audit (RSA) for US 20 (I-5 to Lebanon)	State	Existing Conditions Memo, Linn County Road Department Reported Needs Meeting	Funding source uncertain.
FS-18	Update Emergency Route Designations	Supplement the existing emergency routes in the existing TSP with standby routes in case the major emergency routes have a bridge failure or major crash. Bridges will need to be scour protected and seismic protected, and evaluated to see if there is a need to be on an improvement list.	County	From Linn County Road Department	
FS-19	Improve Linn Benton Loop	PLACEHOLDER [Enhance transit service between Albany and Corvallis]	County	AAMPO RTP - Final Draft Project List (Aspirational)	AAMPO RTP - Final Draft Project List (Aspirational)
FS-20	Queen Ave. - ADA Transition Requirements	Curb, gutter, sidewalk, and ADA improvements on Queen Ave. to Riverside Dr.	County	AAMPO RTP - Final Draft Project List (Financially Constrained)	AAMPO RTP - Final Draft Project List (Financially Constrained)
FS-21	Transit Service between Jefferson, Millersburg and Albany	PLACEHOLDER [Provide Transit service to Millersburg and Jefferson along Old Salem Rd and OR 164. This could include a look along Millersburg Drive and Alexander Lane]	County	AAMPO RTP - Final Draft Project List (Aspirational)	AAMPO RTP - Final Draft Project List (Aspirational)
FS-22	Transit Signal Priority	PLACEHOLDER [Implement TSP at key intersections along transit routes. If possible identify locations for queue jumps]	County & State & Local	AAMPO RTP - Final Draft Project List (Aspirational)	AAMPO RTP - Final Draft Project List (Aspirational)



Legend

Project List Categories

- Future Studies

Interstate
State Highways in UGBs
County Local Roads

Water
Urban Growth Boundary

Linn County Transportation System Plan

Table 7: Systemic Safety Projects					
Project ID	Project Name	Project Description	Jurisdiction	Source	Status
SS-001	Brewster Rd. / Griggs Dr. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	County	ODOT Oregon Intersection Safety Implementation Plan	
SS-002	Brewster Rd. / Mt. Hope Dr. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	County	ODOT Oregon Intersection Safety Implementation Plan	
SS-003	Columbus St. - Systemic Roadway Departure Improvements	Provide systemic roadway departure improvements including: Alignment Delineation, Edgeline Rumble Strips, and Enhanced Signs and Markings.	County	ODOT Roadway Departure Safety Implementation Plan	
SS-004	Denny School Rd. / Oak St. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements, New or Upgraded Lighting	County	ODOT Oregon Intersection Safety Implementation Plan	
SS-005	Grand Prairie Dr. / Three Lakes Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	County	ODOT Oregon Intersection Safety Implementation Plan	
SS-006	Grand Prairie Rd. / Waverly Dr. (Albany) - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Signal and Sign Improvements, Change of Permitted and Protected Left Turn Phase to Protected Only (or Flashing Yellow Arrow), Enforcement Assisted Lights	County	ODOT Oregon Intersection Safety Implementation Plan	
SS-007	I-5 - Alignment Delineation and Lighting	Provide Alignment Delineation and Lighting on I-5 at appropriate locations between M.P. 237.5 and M.P. 240.34, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State	ODOT Roadway Departure Safety Implementation Plan	
SS-009	Lyons-Mill City Dr. - Systemic Roadway Departure Improvements	Provide systemic roadway departure improvements including: Enhanced Signs and Markings, and Tree Removal	County	ODOT Roadway Departure Safety Implementation Plan	
SS-010	Marks Ridge Dr. - Systemic Roadway Departure Improvements	Provide systemic roadway departure improvements including: Centerline Rumble Strips.	County	ODOT Roadway Departure Safety Implementation Plan	
SS-011	McDowell Creek Dr. - Systemic Roadway Departure Improvements	Provide systemic roadway departure improvements including: Signs and Markings	County	ODOT Roadway Departure Safety Implementation Plan	
SS-012	Mt Hope Dr. - Systemic Roadway Departure Improvements	Provide systemic roadway departure improvements including: Signs and Markings	County	ODOT Roadway Departure Safety Implementation Plan	
SS-013	N Main St. - Systemic Roadway Departure Improvements	Provide systemic roadway departure improvements including: Signs and Markings	County	ODOT Roadway Departure Safety Implementation Plan	
SS-014	Oak St. / 2nd St. (Lebanon) - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Enforcement Assisted Lights	County	ODOT Oregon Intersection Safety Implementation Plan	
SS-015	Oak St. / Fur Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	County	ODOT Oregon Intersection Safety Implementation Plan	
SS-016	Oak St. / S. 2nd St. (Lebanon) - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	County	ODOT Oregon Intersection Safety Implementation Plan	
SS-017	Old Salem Rd. - Systemic Roadway Departure Improvements	Provide systemic roadway departure improvements including: Signs and Markings	County	ODOT Roadway Departure Safety Implementation Plan	
SS-018	OR 126 - Centerline Rumble Strips	Provide Centerline Rumble Strips on OR 126 at appropriate locations between M.P. 5.68 and M.P. 8.52, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State	ODOT Roadway Departure Safety Implementation Plan	
SS-019	OR 126 - Edgeline Rumble Strips	Provide Edgeline Rumble Strips on OR 126 at appropriate locations between M.P. 2.84 and M.P. 9.09, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State	ODOT Roadway Departure Safety Implementation Plan	
SS-020	OR 126 - Enhanced Signing and Marking for Curves	Provide Enhanced Signing and Marking for Curves on OR 126 at appropriate locations between M.P. 6.25 and M.P. 10.23, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State	ODOT Roadway Departure Safety Implementation Plan	
SS-021	OR 164 - Shoulder Rumble Strips	Provide Shoulder Rumble Strips on OR 164 at appropriate locations between M.P. 7.95 and M.P. 8.52, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State	ODOT Roadway Departure Safety Implementation Plan	
SS-022	OR 164 / I-5 Northbound Ramps - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State	ODOT Oregon Intersection Safety Implementation Plan	
SS-023	OR 22 - Centerline Rumble Strips	Provide Centerline Rumble Strips on OR 22 at appropriate locations between M.P. 68.18 and M.P. 82.39, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State	ODOT Roadway Departure Safety Implementation Plan	ODOT STIP Project 19692, Region 2 Centerline Rumble Strips Unit 3, includes this location and is currently in design phase, expected bid letting in mid 2018.

Table 7: Systemic Safety Projects					
Project ID	Project Name	Project Description	Jurisdiction	Source	Status
SS-024	OR 22 - Shoulder and Edgeline Rumble Strips	Provide Shoulder and Edgeline Rumble Strips on OR 22 at appropriate locations between M.P. 61.93 and M.P. 81.82, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State	ODOT Roadway Departure Safety Implementation Plan	
SS-025	OR 22 - Enhanced Signing and Marking for Curves	Provide Enhanced Signing and Marking for Curves on OR 22 at appropriate locations between M.P. 67.61 and M.P. 66.48, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State	ODOT Roadway Departure Safety Implementation Plan	ODOT STIP Project 19696, Region 2 Curve Warning Signs Part 3, includes this location and is planned for bid letting in early 2018.
SS-027	OR 226 - Shoulder and Edgeline Rumble Strips	Provide Shoulder and Edgeline Rumble Strips on OR 226 at appropriate locations between M.P. 4.55 and M.P. 24.43, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State	ODOT Roadway Departure Safety Implementation Plan	
SS-028	OR 226 - Enhanced Signing and Marking for Curves	Provide Enhanced Signing and Marking for Curves on OR 226 at appropriate locations between M.P. 10.8 and M.P. 23.3, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State	ODOT Roadway Departure Safety Implementation Plan	ODOT STIP Project 19696, Region 2 Curve Warning Signs Part 3, includes this location and is planned for bid letting in early 2018.
SS-030	OR 226 / 1st Ave. and Main St. - Systemic Intersection Safety Improvements (Scio)	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State	ODOT Oregon Intersection Safety Implementation Plan	
SS-031	OR 226 / Brewster Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements, New or Upgraded Lighting, High Friction Surface, Traffic Calming Improvements.	State	ODOT Oregon Intersection Safety Implementation Plan	
SS-032	OR 226 / Cold Springs Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State	ODOT Oregon Intersection Safety Implementation Plan	
SS-033	OR 226 / Fish Hatchery Dr. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State	ODOT Oregon Intersection Safety Implementation Plan	
SS-034	OR 226 / Gilkey Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements. Consider addition of transverse rumble strips or other traffic calming elements.	State & County	Public Outreach and Input	
SS-035	OR 226 / Richardson Gap Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State	ODOT Oregon Intersection Safety Implementation Plan	
SS-036	OR 228 - Alignment Delineation and Lighting	Provide Alignment Delineation and Lighting on OR 228 at appropriate locations between M.P. 7.95 and M.P. 8.52, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State	ODOT Roadway Departure Safety Implementation Plan	
SS-037	OR 228 - Centerline Rumble Strips	Provide Centerline Rumble Strips on OR 228 at appropriate locations between M.P. 5.68 and M.P. 8.52, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State	ODOT Roadway Departure Safety Implementation Plan	ODOT STIP Project 19692, Region 2 Centerline Rumble Strips Unit 3, includes this location and is currently in design phase, expected bid letting in mid 2018.
SS-038	OR 228 - Shoulder and Edgeline Rumble Strips	Provide Shoulder and Edgeline Rumble Strips on OR 228 at appropriate locations between M.P. 2.84 and M.P. 20.45, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State	ODOT Roadway Departure Safety Implementation Plan	
SS-039	OR 228 - Enhanced Signing and Marking for Curves	Provide Enhanced Signing and Marking for Curves on OR 228 at appropriate locations between M.P. 7.39 and M.P. 19.89, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State	ODOT Roadway Departure Safety Implementation Plan	
SS-041	OR 228 / Bush Creek Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements for the Bush Creek Rd. approach including: Basic Set of Sign and Marking Improvements	State & County	Public Outreach and Input	
SS-042	OR 228 / I-5 Southbound Ramps - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State	ODOT Oregon Intersection Safety Implementation Plan	

Table 7: Systemic Safety Projects					
Project ID	Project Name	Project Description	Jurisdiction	Source	Status
SS-043	OR 34 / Denny School Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements, Enhanced Signing Treatments, High Friction Surface	State	ODOT Oregon Intersection Safety Implementation Plan	ODOT STIP Project 19662 (OR 34 Safety Improvements) includes enhanced intersection warning for OR 34. Expected bid letting in late 2017.
SS-044	OR 34 / Goltra Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State	ODOT Oregon Intersection Safety Implementation Plan	ODOT STIP Project 19662 (OR 34 Safety Improvements) includes enhanced intersection warning for OR 34. Expected bid letting in late 2017.
SS-045	OR 34 / I-5 Northbound Ramps - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Signal and Sign Improvements	State	ODOT Oregon Intersection Safety Implementation Plan	ODOT STIP Project 19662 (OR 34 Safety Improvements) includes enhanced intersection warning for OR 34. Expected bid letting in late 2017.
SS-046	OR 34 / I-5 Southbound Ramps - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Signal and Sign Improvements, Change of Permitted and Protected Left Turn Phase to Protected Only (or Flashing Yellow Arrow)	State	ODOT Oregon Intersection Safety Implementation Plan	ODOT STIP Project 19662 (OR 34 Safety Improvements) includes enhanced intersection warning for OR 34. Expected bid letting in late 2017.
SS-047	OR 34 / McFarland Rd. / Looney Dr. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State	ODOT Oregon Intersection Safety Implementation Plan	ODOT STIP Project 19662 (OR 34 Safety Improvements) includes enhanced intersection warning for OR 34. Expected bid letting in late 2017.
SS-048	OR 34 / Oakville Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State	ODOT Oregon Intersection Safety Implementation Plan	ODOT STIP Project 19662 (OR 34 Safety Improvements) includes enhanced intersection warning for OR 34. Expected bid letting in late 2017.
SS-049	OR 34 / Olson Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State	ARTS 300% List suggestions	
SS-050	OR 34 / OR 34 Bypass - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Signal and Sign Improvements. Evaluate intersection for Enhanced Signing Treatment, and advanced treatments such as actuated dilemma zone protection system.	State	ODOT Oregon Intersection Safety Implementation Plan, ARTS 300% List.	Funded ARTS Systemic project
SS-051	OR 34 / Peoria Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Hot Spot Improvements. Evaluate intersection for Enhanced Signing Treatment, and advanced treatments such as actuated dilemma zone protection system.	State	ODOT Oregon Intersection Safety Implementation Plan, ARTS 150% List	Funded ARTS Systemic project
SS-052	OR 34 / Seven Mile Ln. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Hot Spot Improvements	State	ODOT Oregon Intersection Safety Implementation Plan	
SS-053	OR 99E - Centerline Rumble Strips	Provide Centerline Rumble Strips on OR 99E at appropriate locations between M.P. 11.36 and M.P. 14.2, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State	ODOT Roadway Departure Safety Implementation Plan	

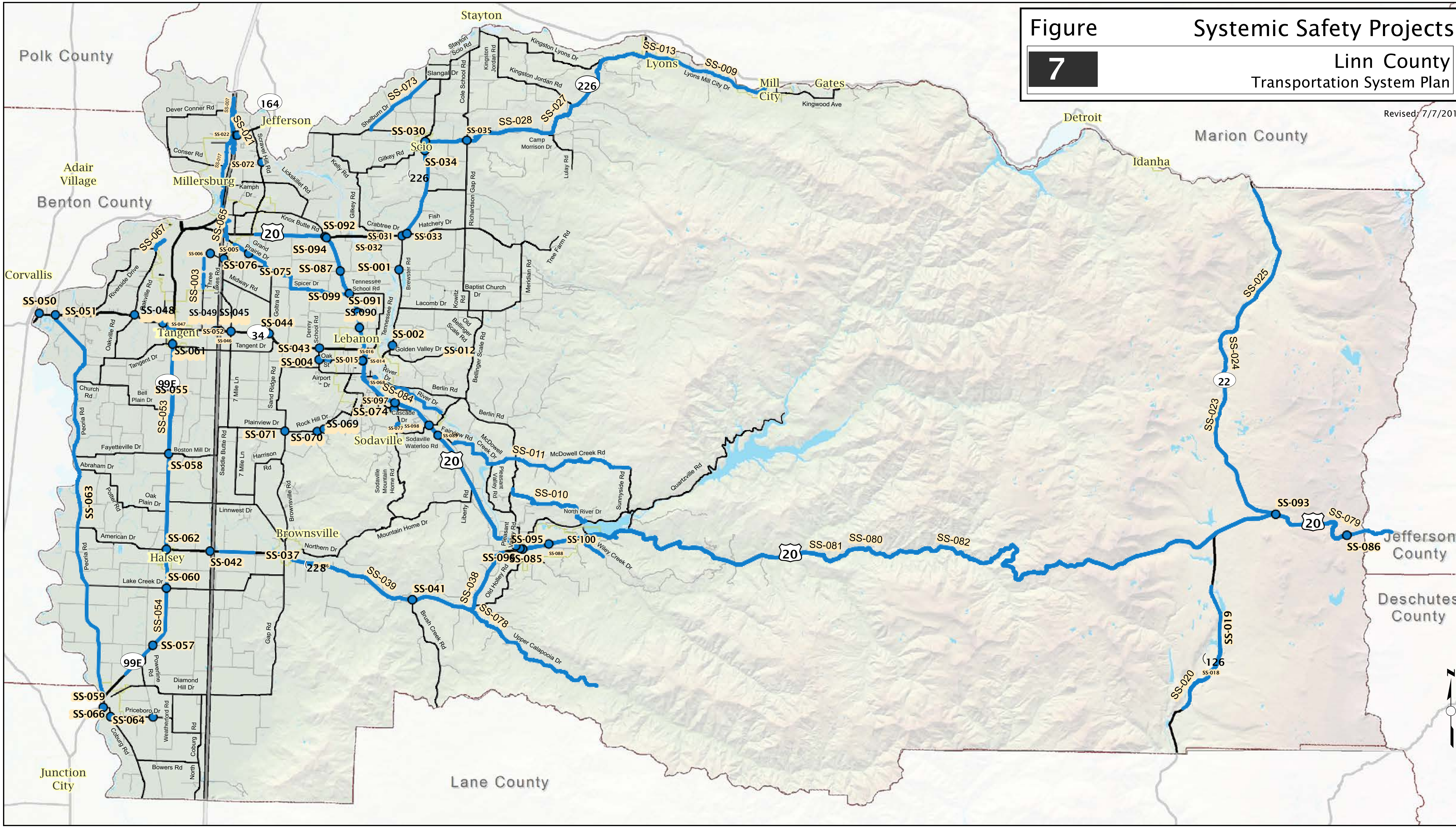
Table 7: Systemic Safety Projects					
Project ID	Project Name	Project Description	Jurisdiction	Source	Status
SS-054	OR 99E - Shoulder and Edgeline Rumble Strips	Provide Shoulder and Edgeline Rumble Strips on OR 99E at appropriate locations between M.P. 7.39 and M.P. 26.7, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State	ODOT Roadway Departure Safety Implementation Plan	
SS-055	OR 99E - Enhanced Signing and Marking for Curves	Provide Enhanced Signing and Marking for Curves on OR 99E at appropriate locations between M.P. 10.23 and M.P. 12.5, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State	ODOT Roadway Departure Safety Implementation Plan	
SS-057	OR 99E / Cartney Dr. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State	ODOT Oregon Intersection Safety Implementation Plan	
SS-058	OR 99E / Fayetteville Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements. Monitor outcomes and consider Enhanced Signing Treatment	State	Linn County Road Department Reported Needs Meeting	
SS-059	OR 99E / La Salle St. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State	ODOT Oregon Intersection Safety Implementation Plan	
SS-060	OR 99E / Lake Creek Dr. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State	ODOT Oregon Intersection Safety Implementation Plan	
SS-061	OR 99E / N. Lake Creek Dr. - Systemic Intersection Safety Improvements (Tangent)	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State	ODOT Oregon Intersection Safety Implementation Plan	
SS-062	OR 99E / OR 228 - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State	ODOT Oregon Intersection Safety Implementation Plan	
SS-063	Peoria Rd. - Systemic Roadway Departure Improvements	Provide systemic roadway departure improvements including: Alignment Delineation, Centerline Rumble Strips, Edgeline Rumble Strips, Signs and Markings, and Tree Removal.	County	ODOT Roadway Departure Safety Implementation Plan	
SS-064	Powerline Rd. / Priceboro Dr. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	County	ODOT Oregon Intersection Safety Implementation Plan	
SS-065	Price Rd. - Systemic Roadway Departure Improvements	Provide systemic roadway departure improvements including: Urban Signs and Markings.	County	ODOT Roadway Departure Safety Implementation Plan	
SS-066	Priceboro Rd. / 6th St. (Harrisburg) - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	County	ODOT Oregon Intersection Safety Implementation Plan	
SS-067	Queen Ave. - Systemic Roadway Departure Improvements	Provide systemic roadway departure improvements to County jurisdiction portion of road (Broadway St. to Riverside Dr.) including: Edgeline Rumble Strips, Signs and Markings, and Tree Removal.	County	ODOT Roadway Departure Safety Implementation Plan	
SS-068	River Dr. A. - Systemic Roadway Departure Improvements	Provide systemic roadway departure improvements including: Signs and Markings	County	ODOT Roadway Departure Safety Implementation Plan	
SS-069	Rock Hill Dr. / Brownsville Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	County	ODOT Oregon Intersection Safety Implementation Plan	
SS-070	Rock Hill Dr. / Butte Creek Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	County	ODOT Oregon Intersection Safety Implementation Plan	
SS-071	Rock Hill Dr. / Sand Ridge Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	County	ODOT Oregon Intersection Safety Implementation Plan	
SS-072	Scravel Hill Rd. / Teddy Ave. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	County	ODOT Oregon Intersection Safety Implementation Plan	
SS-073	Shelburn Dr. - Systemic Roadway Departure Improvements	Provide systemic roadway departure improvements including: Signs and Markings	County	ODOT Roadway Departure Safety Implementation Plan	
SS-074	Sodaville Rd. / Cascade Dr. / McCraven Ln. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	County	ODOT Oregon Intersection Safety Implementation Plan	
SS-075	Spicer Dr. - Systemic Roadway Departure Improvements	Provide systemic roadway departure improvements including: Signs and Markings	County	ODOT Roadway Departure Safety Implementation Plan	
SS-076	Spicer Dr. / Kennel Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements.	County	ODOT Oregon Intersection Safety Implementation Plan	
SS-077	Spring St A. - Systemic Roadway Departure Improvements	Provide systemic roadway departure improvements including: Signs and Markings	County	ODOT Roadway Departure Safety Implementation Plan	
SS-078	Upper Calapooia Dr. - Systemic Roadway Departure Improvements	Provide systemic roadway departure improvements including: Signs and Markings	County	ODOT Roadway Departure Safety Implementation Plan	
SS-079	US 20 - Alignment Delineation and Lighting	Provide Alignment Delineation and Lighting on US 20 at appropriate locations between M.P. 77.84 and M.P. 80.11, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State	ODOT Roadway Departure Safety Implementation Plan	

Table 7: Systemic Safety Projects					
Project ID	Project Name	Project Description	Jurisdiction	Source	Status
SS-080	US 20 - Centerline Rumble Strips	Provide Centerline Rumble Strips on US 20 at appropriate locations between M.P. 2.84 and M.P. 82.39, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State	ODOT Roadway Departure Safety Implementation Plan	ODOT STIP Project 19692, Region 2 Centerline Rumble Strips Unit 3, includes this location and is planned for bid letting in early 2018.
SS-081	US 20 - Shoulder and Edgeline Rumble Strips	Provide Shoulder and Edgeline Rumble Strips on US 20 at appropriate locations between M.P. 2.84 and M.P. 73.86, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State	ODOT Roadway Departure Safety Implementation Plan	
SS-082	US 20 - Enhanced Signing and Marking for Curves	Provide Enhanced Signing and Marking for Curves on US 20 at appropriate locations between M.P. 25 and M.P. 80.11, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State	ODOT Roadway Departure Safety Implementation Plan	ODOT STIP Project 19696, Region 2 Curve Warning Signs Part 3, includes this location and is planned for bid letting in early 2018.
SS-084	US 20 - Systemic Bicycle Safety Improvements	Provide Systemic Bicycle Safety Improvements from M.P. 14.2 to M.P. 17.4, per ODOT Bicycle and Pedestrian Safety Implementation Plan	State	ODOT Bicycle and Pedestrian Safety Implementation Plan	
SS-085	US 20 / 9th Ave. (Sweet Home) - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State	ODOT Oregon Intersection Safety Implementation Plan	
SS-086	US 20 / Big Lake Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State	ODOT Oregon Intersection Safety Implementation Plan	
SS-087	US 20 / Bohlken Dr. / Honey Sign Dr. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State	ODOT Oregon Intersection Safety Implementation Plan	
SS-088	US 20 / Clark Mill Rd. (Sweet Home) - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State	ODOT Oregon Intersection Safety Implementation Plan	
SS-089	US 20 / Fairview Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State	ODOT Oregon Intersection Safety Implementation Plan	
SS-090	US 20 / Gore Dr. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State	ODOT Oregon Intersection Safety Implementation Plan	
SS-091	US 20 / Kgal Dr. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State	ODOT Oregon Intersection Safety Implementation Plan	
SS-092	US 20 / Knox Butte Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements, Enhanced Signing Treatments, New or Upgraded Lighting, High Friction Surface	State	ODOT Oregon Intersection Safety Implementation Plan	
SS-093	US 20 / OR 22 / Santiam Junction - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State	ODOT Oregon Intersection Safety Implementation Plan	
SS-094	US 20 / OR 226 - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State	ODOT Oregon Intersection Safety Implementation Plan	
SS-095	US 20 / OR 228 - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Signal and Sign Improvements. Monitor impactand consider additional hotspot treatments if needed.	State	Public Outreach and Input	
SS-096	US 20 / Pleasant Valley Rd. (Sweet Home) - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State	ODOT Oregon Intersection Safety Implementation Plan	
SS-097	US 20 / Sodaville Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State	ODOT Oregon Intersection Safety Implementation Plan	
SS-098	US 20 / Sodaville-Waterloo Dr. / Waterloo Dr. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State	ODOT Oregon Intersection Safety Implementation Plan	
SS-099	US 20 / Spicer Dr. / Tennessee School Dr. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State	ODOT Oregon Intersection Safety Implementation Plan	
SS-100	Wiley Cr Dr. - Systemic Roadway Departure Improvements	Provide systemic roadway departure improvements including: Centerline Rumble Strips, and Signs and Markings	County	ODOT Roadway Departure Safety Implementation Plan	

Figure 7 — Systemic Safety Projects

Linn County
Transportation System Plan

Revised: 7/7/2017



Legend

Project List Categories

- Systemic Intersection Safety Projects
- Systemic Corridor Safety Projects

Interstate
State Highways in UGBs
County Local Roads

Water
Urban Growth Boundary

Linn County Transportation System Plan

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Section L:

Tech Memo 11: Transportation System Recommendations

The contents of Volume 2 represent an iterative process in the development of the TSP. Refinements to various plan elements occurred throughout the process as new information was obtained. In all cases, the contents of Volume 1 supersede those in Volume 2.

MEMORANDUM

DATE: October 26, 2017

TO: Linn County TSP Project Management Team

FROM: Carl Springer, PE, PTOE, DKS Associates
Mat Dolata, PE, PTP, DKS Associates
Ben Chaney, EIT, DKS Associates

SUBJECT: **Linn County Transportation System Plan |** P14180-010
Task 7.5 Technical Memorandum #11: Transportation System Recommendations

This memorandum describes the recommended transportation system investments to best serve travel needs in Linn County through 2040. We applied the methodology for evaluating and prioritizing the planned transportation system (including all recommended projects) into a financially constrained list, based on revenue forecasts presented in Technical Memorandum #3: Funding Assumptions. High priority project lists are identified to support project selection as other funding opportunities arise for Linn County.

The planned system was identified and refined in consultation with the project team using a multi-modal network-wide approach. The projects are focused on addressing existing and future needs identified for the County transportation system, as detailed in Technical Memorandum #10: Develop Transportation System Solutions.

The project list and maps have been updated to reflect updated information since development of Technical Memorandum #10: Develop Transportation System Solutions. The full TSP project list and maps are included in the appendix.

Planning Level Cost Estimates

Planning-level cost estimates have been developed for each TSP project.[1] These estimates are based on project elements and characteristics such as length/extent. Generalized unit costs and contingency factors were applied to the project elements to calculate total cost. The resulting values are intended to give an order of magnitude look at project costs.

The cost estimates for the full project list are included in the appendix, along with the standard unit costs that were applied. Cost estimates are based on reference documents from the County, ODOT, professional experience, and other transportation planning resources.

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[1] Technical Memorandum #10: Develop Transportation System Solutions included an appendix listing County-identified areas of interest such as bridges and locations prone to flooding. These locations were not included in the TSP project evaluation, prioritization, or recommendations.

Project Scoring Reflects Transportation Goals and Policies

Projects were scored based on the evaluation criteria established in Technical Memorandum #4: Initial Goals & Policies. The complete project list with evaluation scoring is included in the appendix. The evaluation criteria assign values based on the TSP goals and objectives as refined by project stakeholders and the Project Management Team (PMT). The following adjustments have been applied to the project evaluation criteria since Technical Memorandum #4 to address recommendations by the PMT:

- Apply weightings to each evaluation criteria goal.
- Move the "Health (Active Living)" measure of effectiveness from the Safety goal to the Active Transportation goal.
- Rename the Equity goal to "Access for All"
- Simplify scoring values to "1" for criteria that are met and "0" for criteria that are not.

Table 1 lists the goal weighting recommended by the PMT. The full evaluation criteria definitions are included in the appendix.

Table 1: Evaluation Criteria Goal Weighting

Goal	Weight
Safety	10
Maintain and Preserve	10
Mobility	5
Economy	5
Coordination	4
Active Transportation	2
Transit	2
Access for All	1
Sustainability	1

The scores presented in this memo reflect revised methodology developed by the consultant team and informed by feedback from the PMT. Project evaluation scores were normalized to a range from 0% to 100%.

Projects that received the highest scores tended to be on existing facilities that serve as major regional connections, provide improved multimodal access to communities, or better accommodate freight movement. Projects with the lower scores tended to be highly focused, often addressing a specific concern for one travel mode, such as a spot improvement to improve motor vehicle safety or operations. The scoring methodology favors projects that support multiple goal categories.

High Priority Project List - County

Based on a seven-year average of Linn County transportation funding, the estimated total revenues from dedicated sources through 2040 are expected to be fully allocated towards expenditures to operate and maintain the County transportation system, as detailed in Technical Memorandum #3: Funding Assumptions.

However, Linn County can reasonably assume between $15 and $20 million of funding from the state for project related funding beyond the revenues dedicated to operations and maintenance of the existing system. Furthermore, historical precedent and discussions with County staff, indicate that there is a high likelihood that the County will pursue and receive additional outside funding opportunities beyond those provided by ODOT. Therefore the TSP identifies a High Priority Project List that reflects approximately three times the state funding estimate ($15-20 million) for project funding.

The Linn County High Priority Project List shown in

Table 2a is intended to position the County to be prepared to take advantage of funding opportunities as they arise. This list includes projects that are expected to be led by Linn County.

- A second list of High Priority Project List are expected to be led by ODOT, MPOs, or local jurisdictions. Refer to Table 2b for those projects.

The overall funding required to construct the County-led projects reflects the approximate level of funding ($50-60M) expected to be made available for transportation improvements in Linn County through 2040. The subset of projects that are identified as financially-constrained reflect the lower level of funding ($15-20M) that falls within the range of the state funding estimate.

This financially constrained list was developed by selecting the highest-scoring projects that could be implemented for a total cost of less than $20 million. Out of the total state funding ($20 million estimate), one percent or $200,000 is required by state law to be applied for walking and biking infrastructure. The financially constrained list includes pedestrian and bicycle specific infrastructure projects totaling $4,435,000.

The appendix includes full project information including a more detailed description, project source, and current status for some projects. More information on the project development process is included in Technical Memorandum #10: Develop Transportation System Solutions.

Table 2a: High Priority Project List for Linn County

Category	Project ID	Project Name	Evaluation Score	Cost Estimate
Bike/Ped	BP-31*	Clover Ridge Rd. - Truax Creek Bridge Replacement (County Bridge ID 320-0.82, State Bridge ID 12749)	84%	$1,350,000
Bike/Ped	BP-32*	Mill City - 1st Ave. Bridge over North Santiam River Maintenance and Improvements	84%	$1,610,000
Bike/Ped	BP-33*	Mill City - Wall St. Pedestrian Bridge over North Santiam River Improvements	84%	$1,475,000
Bridges	BR-17*	East Bilyeu Creek Dr. - Neal Creek Bridge Replacement (County Bridge ID 831-1.56, State Bridge ID 12951)	84%	$1,740,000
Bridges	BR-31*	Lulay Rd. - Neal Creek Bridge Replacement (County Bridge ID 834-0.27, State Bridge ID 12902)	84%	$1,160,000
Bridges	BR-42*	Old Salem Rd. - Truax Creek Bridge Replacement (County Bridge ID 367-3.19, State Bridge ID 22C08) **TO BE CONSTRUCTED by 10/1/18**	84%	$1,260,000**
Bridges	BR-45*	Peoria Rd. - Lake Creek Bridge Replacement (County Bridge ID 2-12.86, State Bridge ID 12266)	84%	$2,895,000
Bridges	BR-49	Quartzville Rd. - Green Peter Reservoir Bridge Replacement (County Bridge ID 912-9.40, State Bridge ID 12911)	84%	$13,495,000
Bridges	BR-50*	Quartzville Rd. - South Santiam River Bridge Replacement (County Bridge ID 932-0.23, State Bridge ID 93223)	84%	$7,715,000
Bridges	BR-54	Riverside Dr. - Calapooia River Bridge Replacement or Repair (County Bridge ID 1-1.00, State Bridge ID 43C30)	84%	$3,860,000
Bridges	BR-57	Shot Pouch Rd. - South Fork Santiam River Bridge REPLACEMENT (County Bridge ID 910-002,) NOT ON STATE BRIDGE LIST	84%	$2,000,000
Bridges	BR-59	Stayton-Scio Dr. - N. Santiam River Overflow Bridge Replacement (County Bridge ID 601-0.28, State Bridge ID 14069)	84%	$2,575,000
Bridges	BR-69	White Oak Rd. - Owl Creek Bridge Replacement (County Bridge ID 118-1.31, State Bridge ID 12257A)	84%	$2,895,000
Bike/Ped	BP-55	Mt. Home Dr. - Road Surface Improvement	81%	$3,450,000**
Bike/Ped	BP-42	City of Scio – County Road Sidewalk Repair and Infill	79%	$865,000
Spot Improvements	SI-76	Flood Closures Maintenance List Program	77%	$12,500,000

Category	Project ID	Project Name	Evaluation Score	Cost Estimate
Future Studies	FS-18	Update Emergency Route Designations SEE NOTE BELOW TABLE For Expected Corrective Work	75%	$100,000
Systemic Safety	SS-009	Lyons-Mill City Dr. - Systemic Roadway Departure Improvements	71%	$181,000
Systemic Safety	SS-010	Marks Ridge Dr. - Systemic Roadway Departure Improvements	71%	$25,000
Systemic Safety	SS-011	McDowell Creek Dr. - Systemic Roadway Departure Improvements	71%	$5,000
Systemic Safety	SS-012	Mt Hope Dr. - Systemic Roadway Departure Improvements	71%	$5,000
Systemic Safety	SS-013	N Main St. - Systemic Roadway Departure Improvements	71%	$5,000
Systemic Safety	SS-015	Oak St. / Fur Rd. - Systemic Intersection Safety Improvements	71%	$5,000
Systemic Safety	SS-016	Oak St. / S. 2nd St. (Lebanon) - Systemic Intersection Safety Improvements	71%	$5,000
Systemic Safety	SS-017	Old Salem Rd. - Systemic Roadway Departure Improvements	71%	$5,000
Bridges	BR-01	6th St. - Storm Culvert Replacement (Scio)	70%	$645,000
Bridges	BR-02	Bellinger Scale Rd. - Hamilton Creek Bridge Replacement (County Bridge ID 722-0.27, State Bridge ID 11974)	70%	$2,680,000
		High Priority List Total (excluding **)		**$59,821,000**
		Financially Constrained Subtotal (excluding **)		**$17,945,000**

* = Financially Constrained

** = Cost excluded from total. BR-42 is on 2015-2018 ODOT STIP list. BP-55 would be funded as a maintenance project.

Note: ODOT Bridge Section is presently developing a Bridge Replacement List for Addressing Emergency Routes in Linn County. ODOT Bridge Section has identified 116 Bridges in Linn County that are seismic deficient. A plan to address this will be developed in the next 18 months from November 2017 to March 2019. Rough Cost Estimate to address and correct bridges is ~$120,000,000.

High Priority Project List – Other Jurisdictions

The High Priority Project List for other jurisdictions identifies the 10 highest scoring projects that are expected to be led by ODOT, MPOs, or local jurisdictions. The projects were scored based on the same TSP evaluation criteria applied for County-led projects. The projects do not fit within the County TSP financial framework because they are expected to be led by other jurisdictions. Although the project costs are not included in the County-led project priority list (Table 2a), they are identified as priority improvements that the county supports. Inclusion in the project list does not commit any agency to funding the improvements but does reflect prioritization and support from the County TSP perspective.

The I-5 Interchange and Mainline Capacity Improvement Project from South Jefferson to US 20 (Project CI-10) is a major corridor improvement plan that will be implemented by ODOT as a series of smaller stand-alone projects. Although it is not included in Table 2b, it is supported by the Linn County TSP. The final composition of those projects is not yet defined and will be dependent on funding opportunities and ODOT prioritization.

Table 3b: High Priority Project List for Other Jurisdictions

Category	Project ID	Project Name	Primary Jurisdiction	Evaluation Score	Cost Estimate
Bridges	BR-27	OR 99E - Drainage and Culvert Improvement (Halsey)	State	82%	$1,290,000
Bridges	BR-28	OR 226 - Storm Outlet to Thomas Creek (Scio)	State	82%	$1,015,000
Spot Improvements	SI-18	I-5 Optimization: Incident Response Program	State	81%	$2,980,000
Spot Improvements	SI-19	I-5 Optimization: Ramp Metering (Exit 234 NB On-Ramp)	State	81%	$960,000
Future Studies	FS-17	US 20 Road Safety Audit	State	81%	$50,000
Spot Improvements	SI-16	I-5 Optimization: Add or Upgrade Traffic Cameras	State	81%	$1,490,000
Bike/Ped	BP-67	US 20 - Systemic Bicycle Safety Improvements	State	71%	$1,025,925
Systemic Safety	SS-007	I-5 - Alignment Delineation and Lighting	State	71%	$912,200
Systemic Safety	SS-018	OR 126 - Centerline Rumble Strips	State	71%	$7,500

Note: List does not include projects on the 2015-2018 ODOT STIP or currently underway.

Additional High Scoring Projects

Based on historical trends and discussion with County staff, it is clear that project funding opportunities will likely arise during the planning horizon that were not identified during the planning process. Furthermore, the PMT may want to modify the High Priority Project lists to achieve a different balance between the types of projects and geographical locations.

To support these efforts, this section summarizes the 10 highest scoring projects not included in previous lists in each of the identified project categories.

Bicycle/Pedestrian

Table 4: Priority Bicycle and Pedestrian Projects

Project ID	Project Name	Primary Jurisdiction	Evaluation Score	Cost Estimate
BP-44	US 20 (East of I-5) - Urban Upgrade (Albany)	State	68%	$2,070,000
BP-41	OR 226 - Urban Upgrades (Scio)	State	65%	$2,030,000
BP-53	East County Freight and Recreational Route Designation and Improvements	County	61%	$21,305,000
BP-14	Park and Recreation Master Plan - Lebanon to Albany Regional Trail	County Parks and Recreation	60%	$1,000,000
BP-28	OR 99E / South Tangent Dr. - Improve Pedestrian Access (Tangent) on OR 99E	State	59%	$2,095,000
BP-08	OR 22 - Recreational Bike Trail from Detroit to Mill City and Beyond	Marion County	59%	$6,830,000
BP-06	Mill City - Canyon Journey Trail Improvements	City	58%	$1,405,000
BP-48	Maintenance Procedures - More frequent roadway sweeping with bike priority route plan	County	57%	$10,000
BP-19	Tangent Dr. / Blackberry Ln. - Systemic Intersection Safety Improvements (Tangent)	County	57%	$15,000
BP-47	Maintenance Procedures - Bike Friendly Chip Seal	County	56%	$10,000

Corridor Improvements

Table 4: Priority Corridor Improvements

Project ID	Project Name	Primary Jurisdiction	Evaluation Score	Cost Estimate
CI-13	I-5 - N. Jefferson – N. Albany	State	73%	$6,980,000
CI-15	I-5 - Pavement Rehab N. Albany – Halsey	State	73%	$15,300,000
CI-16	I-5 - Pavement Rehab S. Jefferson – N. Albany (NB)	State	73%	$6,980,000
CI-29	City of Scio - Pavement Striping Maintenance on County Roads (Scio)	County	70%	$60,000
CI-10	I-5 - Interchange and Mainline Capacity Improvement Project from South Jefferson to US 20	State	56%	$66,820,000
CI-02	Columbus St. - Urban Upgrade (Albany)	City	54%	$2,730,000
CI-05	Ellingson Rd. - Urban Upgrade (Albany)	City	54%	$5,850,000
CI-06	Ellingson Rd. Extension (Albany)	City	53%	$4,430,000
CI-39	Clover Ridge Rd. - Corridor Improvements	County	51%	$2,000,000
CI-26	OR 34 - Access Management	State	51%	$3,475,000
CI-01	53rd Avenue Extension (Albany)	City	50%	$17,990,000
CI-04	Dogwood Avenue Extension (Albany)	City	50%	$3,295,000
CI-22	Lochner-Columbus Connector (Albany)	City	50%	$2,745,000

Future Studies

Table 5: Priority Future Studies

Project ID	Project Name	Primary Jurisdiction	Evaluation Score	Cost Estimate
FS-09*	OR 34 - Road Safety Audit	State	81%	$50,000
FS-13	Scenic Byway Coordination - Marys Peak to Pacific	State	61%	$100,000
FS-01	1st Avenue - Mill City Post Office Safety Review	County	61%	$30,000
FS-05	Linn County - TDM Programs	County	52%	$1,480,000
FS-19	Linn Benton Loop Enhancements	Oregon Cascades West Council of Governments	46%	$2,000,000
FS-22	Transit Signal Priority	Albany Area MPO	46%	$1,200,000
FS-08	Mill City - Coordination of Paving Projects for City Overlay Work	City	35%	$100,000
FS-11	Promote Enhanced Transit Service for Small Communities in Linn County	County	25%	$250,000
FS-12	Regional Transit Coordination	County	25%	$100,000
FS-21	Transit Service between Jefferson, Millersburg and Albany	Albany Area MPO	19%	$7,000,000

*Project is currently in progress.

Rural Modernization

Table 6: Priority Rural Modernization Projects

Project ID	Project Name	Primary Jurisdiction	Evaluation Score	Cost Estimate
RM-01	Seven Mile Ln. - Road Improvements West	County	47%	$3,000,000
RM-22	City of Sweet Home - Local Roads Shoulder Improvements	City	47%	$2,395,000
RM-14	OR 228 / Crawfordsville Dr. (east end of Crawfordsville Dr., near Holley) - Improve Sight Distance and Provide Two-Stage Left Turn Bay	State	44%	$120,000
RM-13	OR 226 near Lyons - Sight Distance Improvements	State	44%	$3,165,000
RM-15	OR 228 / Crawfordsville Dr. (west end of Crawfordsville Dr., near Crawfordsville) - Improve Sight Distance	State	42%	$60,000
RM-16	OR 228 / Northern Dr. - Improve Sight Distance	State	42%	$60,000
RM-08	Foster Dam Rd. and Parking Area - Safety and Access Improvement Project	County	34%	$1,500,000
RM-21	Sixth Ave. - Road Improvement (Scio)	County	20%	$700,000

Spot Improvements

Table 7: Priority Spot Improvement Projects

Project ID	Project Name	Primary Jurisdiction	Evaluation Score	Cost Estimate
SI-16	I-5 Optimization: Add or Upgrade Traffic Cameras	State	81%	$1,490,000
SI-60	US 20 - Lower Sunken Grade Slide Repair	State	77%	$4,555,000
SI-15	Diamond Hill Dr. / I-5 Interchange - Improve Sight Distance	State	58%	$6,465,000
SI-32	OR 226 / Kingston Jordan Rd. - Sight Distance Improvements	State	58%	$25,000
SI-35	OR 228 / Fern Ridge Rd. and Rowell Hill Rd. (north end) - Shoulder and Sight Distance Improvement	State	58%	$160,000
SI-63	US 20 / Foster Dam Rd. - Railroad Undercrossing Improvement	State	56%	$2,995,000
SI-64	US 20 / Knox Butte Dr. - Intersection Operations Project	State	52%	$180,000
SI-74	Slide Area Maintenance List Program	County	50%	$17,405,000
SI-75	Restricted Roads Improvements List Program	County	50%	$8,670,000
SI-66	US 20 / OR 226 - Intersection Operations Project	State	47%	$180,000

Systemic Safety

There are 93 systemic safety projects identified in the TSP (as shown in the appendix project list). Evaluation score results are generally the same for most of these projects. These projects tend to be low-cost and focused on safety improvements. Projects tied for the top evaluation score, of which there were 67, were generally on freight routes or serving local communities. Prioritization of these projects should be performed by County staff based on a qualitative evaluation and implementation process focused on a cost-effective and comprehensive roll-out of the systemic safety improvements.

Bridges

TSP Evaluation

There are 63 bridge projects identified in the TSP (as shown in the appendix project list). Of those projects, 15 are included in the High Priority lists described in Table 2a and 2b. The High Priority bridges are generally those where seismic vulnerabilities have been identified (County bridges) or that currently pose drainage problems to local communities (ODOT bridges). Of the remaining 48 bridge projects, the evaluation score results are generally the same for most of these projects.

County Priority

Based on Linn County Road Department's assessment of sufficiency rating, load rating, and scour, there are 40 priority bridge projects identified in the TSP project list. These are in addition to the 15 bridges identified in the TSP High Priority project list. The priority bridge projects are identified as "Priority Bridges" in the description in the full appendix project list.

ODOT High Priority Pinch Points

Additionally, The ODOT Highway Over-Dimension Load Pinch Points (HOLPP) Study for Region 2 District 4 identified two pinch points that ODOT considers to be high priority. These locations restrict the tall loads which can be critical to both everyday freight movement and disaster response services. The two ODOT high priority pinch points are OR 99E on the Willamette River Bridge in Harrisburg at MP 29.09 (BR-74) and the US 20 / Foster Dam Rd. - Railroad Undercrossing Improvement (SI-63).

Project Phasing and Sequencing Recommendations

Generally, the projects recommended here are independent of each other and there is no special phasing or sequencing needed. There are three exceptions: the I-5 capacity-enhancement project, spot-improvements with recent safety projects, and the systemic safety improvements.

The I-5 Interchange and Mainline Capacity Improvement Project from South Jefferson to US 20 (CI-10) is a major corridor improvement plan that will be implemented by ODOT as a series of smaller stand-alone projects. Although it is not included in Table 2b, it is supported by the Linn County TSP. The final composition of those projects is not yet defined and will be dependent on funding opportunities and ODOT prioritization. Consideration should also be given to implementing the low-cost I-5 Optimization transportation system management and operations (TSMO) projects (SI-16, 17, 18, 19) prior to or concurrently with capital improvement projects.

A number of the recommended spot-improvement projects (SI-11, 22, 47, 48) have seen safety investments installed in the time period after that covered by the crash data used in the TSP process. Therefore, these locations should be monitored for changes in safety performance and projects should only be implemented if safety concerns persist.

Systemic safety projects, as discussed above, will require a qualitative evaluation and implementation process by the County. It is recommended that these projects be incorporated into ongoing maintenance operations and implemented as the opportunity arises.

Performance of the Planned System

The planned system will provide multimodal improvements to the safety, regional mobility, and local access opportunities for Linn County. Mobility performance including planned improvements has been assessed at six intersections where deficiencies were identified in Technical Memorandum #7: Future Conditions. The deficiencies were identified because mobility targets are not expected to be met at these locations during the 2040 design hour p.m. peak hour. Mobility targets are not met when the forecasted traffic demand exceeds the identified threshold ratio compared to available intersection capacity. This measure is called the volume-to-capacity ratio (or v/c ratio).

The following projects were developed in response to these needs:

- SI-07: Denny School Rd. / Oak St. Intersection Improvement. This unsignalized intersection under County jurisdiction is forecast to exceed the mobility target (Level-of-Service D) mobility target for the Oak St. and Hayden Dr. approach critical movements. The improvement evaluation applies additional median space to allow for two-stage left turns and crossings for the eastbound and westbound movements. This would improve intersections to meet the mobility target (LOS D). Final design approval for any intersection improvement would be required by Linn County. (County Project)
- SI-28: OR 164 / Scravel Hill Rd. Intersection Improvement. This unsignalized intersection is forecast to fail to meet the mobility target (v/c of 0.75) for the Scravel Hill Rd. approach northbound left turn in the future forecast.[2] Final design approval for any intersection improvement would be required by ODOT. (State Project)
- SI-64: US 20 / Knox Butte Dr. Intersection Improvement. This unsignalized intersection is forecast to fail to meet the mobility target (v/c of 0.75) for the Knox Butte Dr. approach southbound left turn in the future forecast.[3] Final design approval for any intersection improvement would be required by ODOT. (State & County Project)
- SI-66: US 20 / OR 226 Intersection Improvement. This unsignalized intersection is forecast to fail to meet the mobility target (v/c of 0.75) for the OR 226 approach westbound left turn in the future forecast. [4] Final design approval for any intersection improvement would be required by ODOT. (State Project)

[2] The improvement evaluation applies a new right turn lane on Scravel Hill Rd. and a short receiving lane on OR 164. This would reduce the critical movement v/c ratio to 0.44.
[3] The improvement evaluation applies separated left turn and right turn lanes on Knox Butte Dr., creating a formalized median space to allow for a two-stage southbound left turn. This would reduce the critical movement v/c ratio to 0.71.
[4] The improvement evaluation applies separated left and right turn lanes on OR 226, creating a formalized median space to allow for a two-stage westbound left turn. This would reduce the critical movement v/c ratio to 0.50.

- SI-82: OR 34 / Denny School Rd. Intersection Improvement. This unsignalized intersection fails to meet the mobility target (v/c ratio of 0.75) for the Denny School Rd. approach northbound left turn in the existing conditions and future forecast.[5] Final design approval for any intersection improvement would be required by ODOT. (State Project)
- SI-83: OR 34 / Peoria Rd. Intersection Improvement. This signalized intersection fails to meet the mobility target (v/c ratio of 0.70) in the existing and future forecast conditions. Intersection improvements to meet the mobility target would require major changes to the intersection.[6] The appropriate solutions at this intersection need to consider the larger context and vision for OR 34 between I-5 and Corvallis. Final design approval for any intersection improvement would be required by ODOT. This corridor should be considered as an area for further study through a future refinement plan. (State Project)

The traffic operations calculations for each of these assumed improvements are included in the appendix. Not all these projects were included in the High Priority (or Financially Constrained) lists; however they are identified for the planned transportation system to identify a potential strategy to meet mobility targets. Final design for any intersection improvement on ODOT highways would require ODOT approval.

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[5] As the intersection does not meet preliminary signal warrants based on 2040 traffic volume forecast, a traffic signal was not considered to be an appropriate solution. The improvement evaluation applies a single lane roundabout while maintaining the bypasses for eastbound right turning and westbound through traffic. This would improve critical approach operations to a v/c ratio of 0.80 in the 30th highest hour and 0.65 in the average weekday p.m. peak hour.

[6] A v/c ratio of 0.67 could be achieved by widening OR 34 to include additional left turn and through lanes on OR 34.

Technical Memorandum #11:
Transportation System Recommendations
Appendix

TSP Planned System Project List

TSP Planned System Project Maps

Mobility Improvement Worksheets (Traffic Operations)

Evaluation Criteria Definitions

Unit Cost Assumptions

Additional Program Project Lists

Planned System Project List

Table A1: Planned System Project List

Category	Project ID	Project Name	Project Description	Primary Jurisdiction	Secondary Juridictions	Coordinated Projects	Source	Status	Evaluation Score	Cost Estimate
Bike/Ped	BP-01	Bike Route - Halsey to Brownsville (Peoria Rd.) Hwy 99E	Connect and expand existing bike routes (Brownsville to Lebanon / Sweet Home and from Corvallis/Peoria)	State			Public Outreach and Input		45%	$1,000,000
Bike/Ped	BP-02	SW Broadway St. - Mill City Urban Street Improvements	Improve Broadway St. in Mill City (1st to 6th) to urban standards, including lighting. Linn County has agreed to a three year plan for improvements	County			Public Outreach and Input, Linn County 2015-2020 Capital Improvement Projects Draft	Linn County 2015-2020 Capital Improvement Projects Draft	51%	$1,085,000
Bike/Ped	BP-03	US 20 - Foster Lake Multi-Use Path	ODOT STIP Project 18853, Multiuse Path along US 20 from 54th Ave. to Riggs Hill Rd., expected bid letting early 2018.	State			Linn County Road Department Reported Needs Meeting	ODOT STIP Project 18853 expected bid letting early 2018.	39%	$1,805,000
Bike/Ped	BP-04	Old Salem Rd. NE - I-5 Exit 235 Undercrossing Bicycle and Pedestrian Facility Improvement (Millersburg)	Provide improved facilities (such as wider paved shoulder or multiuse path) on I-5 undercrossing at Exit 235 serving Old Salem Rd., Murder Creek Dr., Viewcrest, and Millersburg.	State			Linn County Road Department Reported Needs Meeting		29%	$600,000
Bike/Ped	BP-05	[Project Removed]								
Bike/Ped	BP-06	Mill City - Canyon Journey Trail Improvements	Trail improvements, including multi-modal river crossing at Kimmel Park.	City	County		Public Outreach and Input		58%	$1,405,000
Bike/Ped	BP-07	[Project Removed]							28%	
Bike/Ped	BP-08	OR 22 - Recreational Bike Trail from Detroit to Mill City and Beyond	Coordinate with Marion County, creating a recreational bike trail along Highway OR 22 along Santiam River (on the Marion County side) connecting multiple cities and coordinated with the Oregon Scenic Byway.	Marion County	State, Linn County		Linn County Road Department Reported Needs Meeting		59%	$6,830,000
Bike/Ped	BP-09	OR 99E / N. Lake Creek Dr. - Improve Pedestrian Access (Tangent)	Pedestrian Access Improvements.	State			Public Outreach and Input		29%	$75,000
Bike/Ped	BP-10	[Project Removed; Combined with BP-49]							50%	
Bike/Ped	BP-11	[Project Removed]								
Bike/Ped	BP-12	Park and Recreation Master Plan - Wayfinding Signage	Wayfinding signage from County roads to park access, per Linn County Park and Recreation Master Plan	County Parks and Recreation	County		Linn County Park and Recreation Master Plan (January, 2009):		35%	$10,000
Bike/Ped	BP-13	Park and Recreation Master Plan - Foster Reservoir Trail	Collaborate to complete 7.5 miles of compressed gravel trail, per Linn County Park and Recreation Master Plan	County Parks and Recreation	County		Linn County Park and Recreation Master Plan (January, 2009):		39%	$475,000
Bike/Ped	BP-14	Park and Recreation Master Plan - Lebanon to Albany Regional Trail	Collaborate with local agencies on 10 mile multi-use trail with adjacent soft surface trail, per Linn County Park and Recreation Master Plan. Conceptual alignment to be determined.	County Parks and Recreation	County, Lebanon, Albany.		Linn County Park and Recreation Master Plan (January, 2009):		60%	$1,000,000
Bike/Ped	BP-15	City of Scio - Crosswalk Safety Evaluation and Improvements at N. 1st St. and Main. (Scio)	Evaluate crosswalk for safety improvements and implement.	County	Scio		Public Outreach and Input		29%	$75,000
Bike/Ped	BP-16	City of Scio - Crosswalk Safety Evaluation and Improvements at SE Ash St. and OR 226 (Scio)	Evaluate crosswalk for safety improvements and implement.	State			Public Outreach and Input		29%	$75,000
Bike/Ped	BP-17	City of Scio - Crosswalk Safety Evaluation and Improvements at SW 4th Ave. School Crossing (Scio)	Evaluate crosswalk for safety improvements and implement.	County			Public Outreach and Input		29%	$75,000
Bike/Ped	BP-18	City of Scio - Scio High School Pedestrian Path and School Crosswalk Safety Improvements (Scio)	Pedestrian and bicycle access and safety improvements to access Scio High School.	County	Scio		Public Outreach and Input		44%	$75,000
Bike/Ped	BP-19	Tangent Dr. / Blackberry Ln. - Systemic Intersection Safety Improvements (Tangent)	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements. Evaluate intersection for Enhanced Signing Treatments.	County			Public Outreach and Input		57%	$15,000
Bike/Ped	BP-20	US 20 through Sweet Home - Pedestrian Access Improvements	Pedestrian Access Improvements.	State			Public Outreach and Input		50%	$1,600,000
Bike/Ped	BP-21	Berlin Rd. - Shoulder Improvements (Lebanon)	Improve shoulders along Berlin Rd, from Brewster Rd. to Waterloo Rd., providing safe bike access along the east bank of the South Santian River.	County	City		Public Outreach and Input		39%	$3,415,000
Bike/Ped	BP-22	Boston Mill Rd. / I-5 Overcrossing Bicycle and Pedestrian Facility Improvement	Provide improved facilities (such as continuious wide shoulders or multiuse paths) on I-5 crossing on Boston Mill Dr. serving Shedd, Brownsville, Lebanon, and Sodaville. Will require bridge widening or new multimodal bridge(s).	County	State		Linn County Road Department Reported Needs Meeting		41%	$4,310,000
Bike/Ped	BP-23	Diamond Hill Dr. / I-5 Overcrossing Bicycle and Pedestrian Facility Improvement	Provide improved facilities (such as continuious wide shoulders or multiuse paths) on I-5 crossing on Diamond Hill Dr. serving Harrisburg and Brownsville. Will require bridge widening or new multimodal bridge(s).	County	State		Linn County Road Department Reported Needs Meeting		41%	$5,750,000
Bike/Ped	BP-24	Lake Creek Rd. / I-5 Overcrossing Bicycle and Pedestrian Facility Improvement	Provide improved facilities (such as continuious wide shoulders or multiuse paths) on I-5 crossing on Lake Creek Rd. serving Halsey and Brownsville. Will require bridge widening or new multimodal bridge(s).	County	State		Linn County Road Department Reported Needs Meeting		41%	$5,030,000
Bike/Ped	BP-25	Linn W Dr. / I-5 Overcrossing Bicycle and Pedestrian Facility Improvement	Provide improved facilities (such as continuious wide shoulders or multiuse paths) on I-5 crossing on Linn W Dr. serving Shedd and Brownsville. Will require bridge widening or new multimodal bridge(s).	County	State		Linn County Road Department Reported Needs Meeting		41%	$2,875,000
Bike/Ped	BP-26	OR 228 / I-5 Overcrossing Bicycle and Pedestrian Facility Improvement	Provide improved facilities (such as continuious wide shoulders or multiuse paths) on I-5 crossing on OR 228 serving Halsey and Brownsville. Will require bridge widening or new multimodal bridge(s).	State			Linn County Road Department Reported Needs Meeting		41%	$8,620,000
Bike/Ped	BP-27	OR 34 / I-5 Overcrossing Bicycle and Pedestrian Facility Improvement	Provide improved facilities (such as continuious wide shoulder, bike lanes, sidewalks, or multiuse paths) on I-5 crossing, approaches, and signalized interchange terminals.	State			Linn County Road Department Reported Needs Meeting		41%	$1,035,000
Bike/Ped	BP-28	OR 99E / South Tangent Dr. - Improve Pedestrian Access (Tangent) on OR 99E	Pedestrian Access Improvements.	State			Public Outreach and Input		59%	$2,095,000

Category	Project ID	Project Name	Project Description	Primary Jurisdiction	Secondary Juridictions	Coordinated Projects	Source	Status	Evaluation Score	Cost Estimate
Bike/Ped	BP-29	Seven Mile Ln. / I-5 Overcrossing Bicycle and Pedestrian Facility Improvement	Provide improved facilities (such as continuious wide shoulders or multiuse paths) on I-5 crossing, which will require bridge widening or new multimodal bridge.	County	State		Linn County Road Department Reported Needs Meeting		42%	$3,595,000
Bike/Ped	BP-30	Tangent Dr. / I-5 Overcrossing Bicycle and Pedestrian Facility Improvement	Provide improved facilities (such as continuious wide shoulders or multiuse paths) on I-5 crossing on Tangent Dr. serving Tangent, Lebanon, and Sodaville. Will require bridge widening or new multimodal bridge(s).	County	State		Linn County Road Department Reported Needs Meeting		42%	$3,595,000
Bike/Ped	BP-31	Clover Ridge Rd. - Truax Creek Bridge Replacement (County Bridge ID 320-0.82, State Bridge ID 12749)	Widen and replace Clover Ridge Rd. bridge over Traux Creek to include sidewalks and bike lanes and stormwater treatment. Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			AAMPO RTP - Final Draft Project List (Financially Constrained), Linn County Bridge Priority List	AAMPO RTP - Final Draft Project List (Financially Constrained), Priority Bridge	84%	$1,350,000
Bike/Ped	BP-32	Mill City - 1st Ave. Bridge over North Santiam River Maintenance and Improvements	Bridge maintenance and improvements, including pedestrian improvements.	County			Public Outreach and Input		84%	$1,610,000
Bike/Ped	BP-33	Mill City - Wall St. Pedestrian Bridge over North Santiam River Improvements	Pedestrian bridge maintenance and improvements.	County			Public Outreach and Input		84%	$1,475,000
Bike/Ped	BP-34	Crowfoot Rd. - Corridor Improvement Project (Lebanon)	Corridor safety project on Crowfoot Rd. from Highway 20 to S. Main Rd. Includes bicycle and pedestrian facilities and connections to nearby school.	County		BP-62, SI-62	From Linn County Road Department		51%	$1,375,000
Bike/Ped	BP-35	Goldfish Farm Rd. - Urban Improvement	Urban improvements to Gold Fish Farm Rd.	County			Linn County 2015-2020 Capital Improvement Projects Draft	Linn County 2015-2020 Capital Improvement Projects Draft	54%	$3,465,000
Bike/Ped	BP-36	Grand Prairie Rd. - Urban Upgrade (Albany)	Urban Upgrade. Coordinate with City of Albany on project implementation (per Albany TSP)	City			Albany TSP		51%	$2,260,000
Bike/Ped	BP-37	Kirk Avenue - Urban Upgrades (Brownsville)	Urban streetscape upgrade for Kirk Avenue. Design TBD in consultation with City officials.	County			Public Outreach and Input		51%	$3,000,000
Bike/Ped	BP-38	Knox Butte Rd. Widening (Albany)	Add Lane(s)/Urban Upgrade. Coordinate with City of Albany on project implementation (per Albany TSP)	City			Albany TSP		50%	$7,690,000
Bike/Ped	BP-39	Lochner Rd. - Urban Upgrade (Albany)	Urban Upgrade. Coordinate with City of Albany on project implementation (per Albany TSP)	City			Albany TSP		51%	$5,760,000
Bike/Ped	BP-40	NW 4th Avenue - Urban Upgrades (Scio)	NW 4th (Jefferson-Scio Drive) Curb, Gutter, Storm & Sidewalks between Main St. and Clayton Pl.	County			Public Outreach and Input		51%	$955,000
Bike/Ped	BP-41	OR 226 - Urban Upgrades (Scio)	Addition of Curbs, gutters, sidewalks, bike lanes and streetscape improvements on both sides of OR 226 (~3,000 ft.) where they do not currently exist within Scio city limits.	State		BP-17	Public Outreach and Input		65%	$2,030,000
Bike/Ped	BP-42	City of Scio - County Road Sidewalk Repair and Infill	Repair or replace any current sidewalks that are below County standards inside Scio city limits on N Main St., NE 4th St.	County		BP-40, BP-41	Public Outreach and Input		79%	$865,000
Bike/Ped	BP-43	Scravel Hill Rd. - Urban Upgrade (Albany)	Urban Upgrade. Coordinate with City of Albany on project implementation (per Albany TSP)	County	City	SI-22	Albany TSP	Developments will pay for improvements on this rural road. For intersection improvements, see project SI-22	51%	$200,000
Bike/Ped	BP-44	US 20 (East of I-5) - Urban Upgrade (Albany)	Urban Upgrade. Coordinate with City of Albany on project implementation (per Albany TSP)	State			Albany TSP		68%	$2,070,000
Bike/Ped	BP-45	Washburn St. (aka. Gap Rd.) - Urban Upgrade (Brownsville)	Urban streetscape upgrade for Washburn St. (aka. Gap Road) focused on traffic calming and improving bicycle and pedestrian facilities. Design to be determined in consultation with City of Brownsville, construction likely to be development-driven.	County			Public Outreach and Input		51%	$1,430,000
Bike/Ped	BP-46	Tangent Dr. - Urban Corridor Improvements (Tangent)	Add curb, gutter, sidewalk from OR 99E to City Limits	County		BP-19, BP-28, BR-60	AAMPO RTP - Final Draft Project List (Financially Constrained)	AAMPO RTP - Final Draft Project List (Financially Constrained)	51%	$1,200,000
Bike/Ped	BP-47	Maintenance Procedures - Bike Friendly Chip Seal	When chip seal is used, use smaller size rocks and ensure the treatment extends fully through shoulders, preferably at least 6 feet everywhere.	County			Public Outreach and Input	Cost is a maintenance change, and is not included as a capital cost.	56%	$10,000
Bike/Ped	BP-48	Maintenance Procedures - More frequent roadway sweeping with bike priority route plan	Provide more frequent roadway sweepings, and identify a set of priority bike routes for maintenance.	County			Public Outreach and Input	Cost is a maintenance change, and is not included as a capital cost.	57%	$10,000
Bike/Ped	BP-49	OR 99E - Urban upgrade from American Dr. to South City Limit (Halsey)	Highway, curb, gutter, landscaping and utility relocation project that addresses in a comprehensive manner OR99E through downtown Halsey.	State	County		2015-2018 ODOT STIP (as amended)	Design phase is 2015-2018 ODOT STIP #18751 (as amended); recent Oregon Transportation Package approved funding for construction. Pending IGA - expected to start by 2017 and complete within 2 years. County is responsible for 10.27% of cost.	51%	$12,000,000
Bike/Ped	BP-50	Queen Ave. - ADA Transition Requirements	Curb, gutter, sidewalk, and ADA improvements on Queen Ave. to Riverside Dr.	County	AAMPO	BR-54	AAMPO RTP - Final Draft Project List (Financially Constrained)	AAMPO RTP - Final Draft Project List (Financially Constrained)	35%	$1,500,000
Bike/Ped	BP-51	Seven Mile Ln. - Shoulder Improvements East	Improve shoulders to provide bike-friendly width on Seven Mile Lane, I-5 Overpass to Brownsville.	County		BP-29, SI-86, SS-052	Public Outreach and Input		47%	$12,735,000
Bike/Ped	BP-52	Brownsville Rd. - Corridor Improvement Project	Improvements to Brownsville Rd. including widen lanes and provide paved shoulders to design standards.	County		BR-14, SI-04	Linn County 2015-2020 Capital Improvement Projects Draft	Linn County 2015-2020 Capital Improvement Projects Draft	34%	$2,400,000

Category	Project ID	Project Name	Project Description	Primary Jurisdiction	Secondary Juridictions	Coordinated Projects	Source	Status	Evaluation Score	Cost Estimate
Bike/Ped	BP-53	East County Freight and Recreational Route Designation and Improvements	Improve shoulders and crossings, and widen roadway where necessary, to provide safe corridor for bicycles, pedestrians, and freight connecting Stayton, Scio, Lacomb, and Waterloo. Conceptual route includes: Stayton-Scio Rd., OR 226, Richardson Gap Rd., Fish Hatchery Dr., Meridian Rd., Lacomb Dr, Bellinger Scale Rd.	County	City	RM-27, BP-21	Linn County Road Department Reported Needs Meeting		61%	$21,305,000
Bike/Ped	BP-54	Gap Rd. / Diamond Hill Rd. - Shoulder Improvements	Improve shoulders to provide safe bike access to scenic route.	County			Linn County Road Department Reported Needs Meeting		33%	$3,905,000
Bike/Ped	BP-55	Mt. Home Dr. - Road Surface Improvement	Pave Mt. Home Dr. between Sodaville Mountain Home Rd. and Northern Dr. to allow bicycle travel between Sweet Home and Brownsville without using OR 228.	County			Public Outreach and Input	Cost is a maintenance change, and is not included as a capital cost.	81%	$3,450,000
Bike/Ped	BP-56	North River Dr. approaching Quartzville Rd. - Shoulder and Alignment Improvement	Improve roadway for all users (bikes, peds, recreational vehicles, etc.) by providing improved shoulders and realignment to reduce horizontal and vertical curves.	County			Linn County Road Department Reported Needs Meeting	Funding obtained through Federal Lands Access Program (FLAP)	33%	$1,800,000
Bike/Ped	BP-57	Riverside Dr. - Widening And Improvement (Phase I And Phase II)	Road improvements to Riverside Drive, including widening shoulders, lanes, curves and enhanced curve warning signs.	County			Linn County 2015-2020 Capital Improvement Projects Draft	Linn County 2015-2020 Capital Improvement Projects Draft	40%	$4,800,000
Bike/Ped	BP-58	City of Scio - Shoulder Improvements on County Roads (Scio)	Incorporate wide shoulders inside Scio city limits, with fog lines, where possible on N Main St. and NW/NE 4th St.	County	Scio		Public Outreach and Input		47%	$500,000
Bike/Ped	BP-59	Tangent Dr. - Rural Corridor Improvements	Widen and repave Tangent Dr. where needed to provide multiuse shoulders. Project extends from Tangent City Limits west to Peoria Rd. and east to OR 34. (West of Tangent City Limits follows Oakville Rd. and Harvest Dr.)	County			Public Outreach and Input		40%	$7,375,000
Bike/Ped	BP-60	US 20 from Quartzville Rd. to Cascadia State Park - Bike Shoulder Improvement	Improve shoulders to provide consistent bike-friendly width on US 20 from Quartzville Rd. to Cascadia State Park.	State		BP-61	Public Outreach and Input		42%	$5,560,000
Bike/Ped	BP-61	Waterloo Rd. - Roadway and Shoulder Improvements	Widen shoulders and travel lanes as needed between City of Waterloo and Berlin Rd. to improve safety and capacity of popular freight and bicycle route. Apply systemic safety improvements at intersection with Plagman Dr.	County			Linn County Road Department Reported Needs Meeting, Public Outreach and Input		53%	$1,770,000
Bike/Ped	BP-62	Crowfoot Rd. / Cascade Dr. - Intersection Safety Improvements (Lebanon)	Intersection improvement to reduce vehicle conflict points and provide safe bicycle and pedestrian access to nearby school, such as a roundabout. Implement in collaboration with City of Lebanon.	County	City of Lebanon	BP-34	Linn County Road Department Reported Needs Meeting, Lebanon TSP		40%	$2,395,000
Bike/Ped	BP-63	Hume St. - Urban Improvements (Brownsville)	Improve Hume St. to urban standards	County			Public Outreach and Input		18%	$70,000
Bike/Ped	BP-64	Waterloo Rd. / Berlin Rd. - Intersection Realignment	Realign intersection to traditional stop-controlled "T" geometry. Improve sight distance with vegetation removal and maintenance. Design should prioritize heavy bicycle traffic and accommodate freight (log trucks) traffic.	County			Linn County Road Department Reported Needs Meeting		49%	$1,200,000
Bike/Ped	BP-65	Grand Prairie Rd. - I-5 Bridge Widening	Widen I-5 bridge to provide safe passage for Bicycles and Pedestrians	State			AAMPO RTP - Final Draft Project List (Financially Constrained)	AAMPO RTP - Final Draft Project List (Financially Constrained)	38%	$10,775,000
Bike/Ped	BP-66	Linn-Benton Community College (LBCC) Transit Center	Transit Center at LBCC Campus (Linn County funded portion) - including multimodal and bicycle access into the LBCC campus,	County	Albany Area MPO, LBCC		AAMPO RTP - Final Draft Project List (Aspirational)	AAMPO RTP - Final Draft Project List (Aspirational)	38%	$500,000
Bike/Ped	BP-67	US 20 - Systemic Bicycle Safety Improvements	Provide Systemic Bicycle Safety Improvements from M.P. 14.2 to M.P. 17.4, per ODOT Bicycle and Pedestrian Safety Implementation Plan	State			ODOT Bicycle and Pedestrian Safety Implementation Plan		71%	$1,025,925
Bridges	BR-01	6th St. - Storm Culvert Replacement (Scio)	Replace Storm Sewer / Culvert on SW 6th St. over Peters Ditch	County			Public Outreach and Input		70%	$645,000
Bridges	BR-02	Bellinger Scale Rd. - Hamilton Creek Bridge Replacement (County Bridge ID 722-0.27, State Bridge ID 11974)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Priority Bridge	70%	$2,680,000
Bridges	BR-03	Belts Dr. - Creek Frontage Rte. Bridge Replacement (County Bridge ID 518-4.10, State Bridge ID 8466)	Priority Bridges to be replaced based on sufficiency rating and scour	County			Linn County Bridge Priority List	Priority Bridge	70%	$1,930,000
Bridges	BR-04	Berlin Rd. - Hamilton Creek Bridge Replacement (County Bridge ID 20B-4.90, State Bridge ID 11964A) Funding Acquired	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Draft 2018-2021 ODOT STIP Project 20318. Priority Bridge, funding acquired, construction scheduled to begin 2020.	70%	$1,750,000
Bridges	BR-05	Berlin Rd. - McDowell Creek Bridge Replacement (County Bridge ID 728-1.72, State Bridge ID 11955A)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Priority Bridge	70%	$3,375,000
Bridges	BR-06	Boston Mill Rd. - Calapooia River Bridge Replacement (County Bridge ID 13-6.96, State Bridge ID 12287A)	Priority Bridges to be replaced based on sufficiency rating and scour	County			Linn County Bridge Priority List	Priority Bridge	70%	$2,410,000
Bridges	BR-07	Boston Mill Rd. - Overflow Bridge Replacement (County Bridge ID 13-5.57, State Bridge ID 13557)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Priority Bridge	70%	$3,200,000
Bridges	BR-08	Boston Mill Rd. - Sodom Ditch Bridge Replacement (County Bridge ID 13-7.46, State Bridge ID 12286)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Priority Bridge	70%	$2,410,000
Bridges	BR-09	Bowers Dr. - Muddy Creek Bridge Replacement (County Bridge ID 234-3.27, State Bridge ID 12398)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Priority Bridge	70%	$1,930,000
Bridges	BR-10	Brewster Rd. - One Horse Slough 024-462 Bridge Replacement	Replace bridge #12738	County			Linn County 2015-2020 Capital Improvement Projects Draft	Linn County 2015-2020 Capital Improvement Projects Draft	70%	$1,560,000
Bridges	BR-11	Bush Garden Dr. - Muddy Creek Bridge Replacement (County Bridge ID 526-0.44, State Bridge ID 12492)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Priority Bridge	70%	$870,000
Bridges	BR-12	[Project ID changed to BP-31]								

Category	Project ID	Project Name	Project Description	Primary Jurisdiction	Secondary Juridictions	Coordinated Projects	Source	Status	Evaluation Score	Cost Estimate
Bridges	BR-13	Coburg Rd. - Curtis Slough Bridge Replacement (County Bridge ID 2A-3.94, State Bridge ID 12271)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Priority Bridge	70%	$870,000
Bridges	BR-14	Cochran Creek Dr. - Cochran Creek Bridge Replacement (County Bridge ID 740-0.08, State Bridge ID 12619)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Priority Bridge	70%	$1,350,000
Bridges	BR-15	Cole School Rd. - Bear Creek Bridge Replacement (County Bridge ID 604-1.24, State Bridge ID 12974)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Priority Bridge	70%	$775,000
Bridges	BR-16	Cyrus Rd. - Mill Creek Bridge Replacement (County Bridge ID 653-0.88, State Bridge ID 12797A)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Priority Bridge	70%	$2,220,000
Bridges	BR-17	East Bilyeu Creek Dr. - Neal Creek Bridge Replacement (County Bridge ID 831-1.56, State Bridge ID 12951)	Priority Bridges to be replaced based on sufficiency rating and seismic issues - Sub Structure	County			Linn County Bridge Priority List	Priority Bridge	84%	$1,740,000
Bridges	BR-18	Falk Rd. - Spoon Creek Bridge Replacement (County Bridge ID 502-0.56, State Bridge ID 12514)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Priority Bridge	70%	$1,065,000
	BR-19	[Project Removed]							84%	
Bridges	BR-20	Fish Hatchery Dr. - Roaring River Bridge Replacement (County Bridge ID 648-6.80, State Bridge ID 12877)	Replace Bridge	County			Linn County 2015-2020 Capital Improvement Projects Draft	Linn County 2015-2020 Capital Improvement Projects Draft	70%	$1,400,000
Bridges	BR-21	Folsom Rd. - Mill Creek Bridge Replacement (County Bridge ID 651-0.65, State Bridge ID 12792)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Draft 2018-2021 ODOT STIP Project 20306. Priority Bridge, funding acquired, construction scheduled to begin 2019.	70%	$730,000
Bridges	BR-22	Fry Rd. - Oak Creek Bridge Replacement (County Bridge ID 336-0.65, State Bridge ID 12616)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Priority Bridge	70%	$2,025,000
Bridges	BR-23	[Project Removed]								
Bridges	BR-24	Goldfish Farm Rd. - Cox Creek Bridge Replacement (County Bridge ID 328-0.36, State Bridge ID 12732A)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List, AAMPO RTP - Final Draft Project List (Financially Constrained)	Priority Bridge, AAMPO RTP - Final Draft Project List (Financially Constrained)	70%	$1,740,000
Bridges	BR-25	High Deck Rd. - South Santiam River Bridge Replacement (County Bridge ID 913-1.67, State Bridge ID 14025)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Priority Bridge	70%	$2,700,000
Bridges	BR-26	OR 228 - Drainage and Culvert Improvement (Halsey)	Improve culverts	State			Public Outreach and Input		82%	$1,290,000
Bridges	BR-27	OR 99E - Drainage and Culvert Improvement (Halsey)	Improve culverts	State			Public Outreach and Input		82%	$1,290,000
Bridges	BR-28	OR 226 - Storm Outlet to Thomas Creek (Scio)	Add storm outlet on OR-226	State			Public Outreach and Input		82%	$1,015,000
Bridges	BR-29	Lochner Rd. - Oak Creek Bridge Replacement (County Bridge ID 346-1.08, State Bridge ID 12412)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Priority Bridge	70%	$2,125,000
Bridges	BR-30	Lochner Rd. - Oak Creek Bridge Replacement (County Bridge ID 346-1.17, State Bridge ID 12411)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Priority Bridge	70%	$2,510,000
Bridges	BR-31	Lulay Rd. - Neal Creek Bridge Replacement (County Bridge ID 834-0.27, State Bridge ID 12902)	Priority Bridges to be replaced based on sufficiency rating and seismic issues - Super Structure	County			Linn County Bridge Priority List	Priority Bridge, Linn County 2015-2020 Capital Improvement Projects Draft	84%	$1,160,000
Bridges	BR-32	McDowell Creek Dr. - Willow Creek Bridge Replacement (County Bridge ID 729-0.68, State Bridge ID 11950A)	Priority Bridges to be replaced based on sufficiency rating and scour.	County			Linn County Bridge Priority List	Priority Bridge	70%	$1,350,000
Bridges	BR-33	McQueen Dr. - Creek Bridge Replacement (County Bridge ID 756-0.74, State Bridge ID 12858)	Priority Bridges to be replaced based on sufficiency rating, load rating, and scour.	County			Linn County Bridge Priority List	Priority Bridge	70%	$775,000
Bridges	BR-34	[Project ID changed to BP-32]								
Bridges	BR-35	[Project ID changed to BP-33]								
Bridges	BR-36	Mill City - Storm Drainage Improvements	Storm drainage improvements throughout Mill City	County			Public Outreach and Input		70%	$3,875,000
Bridges	BR-37	Muller Dr. - Burkhart Creek Bridge Replacement (County Bridge ID 333-1.37, State Bridge ID 12718)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Priority Bridge	70%	$775,000
Bridges	BR-38	[Project Removed]								
Bridges	BR-39	N. Waverly Dr. - Cox Creek Bridge Replacement (County Bridge ID 324-0.00, State Bridge ID 12752)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Priority Bridge	70%	$4,050,000
Bridges	BR-40	Nicewood Dr. - Lake Creek Bridge Replacement (County Bridge ID 3-4.60, State Bridge ID 12329)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Priority Bridge	70%	$2,895,000
Bridges	BR-41	Nixon Dr. - Little Muddy Creek Overflow Bridge Replacement (County Bridge ID 223-0.37, State Bridge ID 12385)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Priority Bridge	70%	$1,160,000
Bridges	BR-42	Old Salem Rd. - Truax Creek Bridge Replacement (County Bridge ID 367-3.19, State Bridge ID 22C08)	Scheduled to be replaced 2017. Priority Bridges to be replaced based on load rating, scour, sufficiency rating and seismic issues - Super Structure	County			Linn County Bridge Priority List	Scheduled to be replaced 2017, ODOT STIP 18698 and Linn County CIP.	84%	$1,260,000
Bridges	BR-43	Old Santiam Highway - Creek Bridge Replacement (County Bridge ID 730-0.30, State Bridge ID 11936)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Priority Bridge	70%	$675,000

Category	Project ID	Project Name	Project Description	Primary Jurisdiction	Secondary Juridictions	Coordinated Projects	Source	Status	Evaluation Score	Cost Estimate
Bridges	BR-44	OR 228 - Extension to Connect OR 99E with OR 99W	Connect highways via. new bridge over Willamette, potentially toll-supported. Creates recreational and emergency route from the coast to the mountains, connecting Monroe, Greenberry, Alsea, Bellfountain, Fern, and Philomath.	State			Public Outreach and Input		55%	$67,670,000
Bridges	BR-45	Peoria Rd. - Lake Creek Bridge Replacement (County Bridge ID 2-12.86, State Bridge ID 12266)	Priority Bridges to be replaced based on sufficiency rating and seismic issues - Super Structure	County			Linn County Bridge Priority List	Priority Bridge	84%	$2,895,000
Bridges	BR-46	Peoria Rd. - Slough Bridge Replacement (County Bridge ID 2-3.06, State Bridge ID 12260)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Priority Bridge	70%	$775,000
Bridges	BR-47	Plagmann Dr. - Overflow Bridge Replacement (County Bridge ID 652-1.41, State Bridge ID 12796)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Priority Bridge	70%	$1,450,000
Bridges	BR-48	Powerline Rd. - Muddy Creek Bridge Replacement (County Bridge ID 218-0.15, State Bridge ID 12352)	Funding Acquired. Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Draft 2018-2021 ODOT STIP Project 20311. Priority Bridge, funding acquired, construction scheduled to begin 2019. Linn County 2015-2020 Capital Improvement Projects Draft	70%	$1,220,000
Bridges	BR-49	Quartzville Rd. - Green Peter Reservoir Bridge Replacement (County Bridge ID 912-9.40, State Bridge ID 12911)	Painted in 2015. Priority Bridges to be replaced based on sufficiency rating and seismic issues - Super Structure	County			Linn County Bridge Priority List	Priority Bridge	84%	$13,495,000
Bridges	BR-50	Quartzville Rd. - South Santiam River Bridge Replacement (County Bridge ID 932-0.23, State Bridge ID 93223)	Priority Bridges to be replaced based on sufficiency rating and seismic issues - Super Structure	County			Linn County Bridge Priority List	Priority Bridge, upgraded in 2010	84%	$7,715,000
Bridges	BR-51	[Project Removed]								
Bridges	BR-52	Red Bridge Rd. - Albany-Santiam Canal Bridge Replacement (County Bridge ID 342-2.97, State Bridge ID 12693)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Priority Bridge, Linn County 2015-2020 Capital Improvement Projects Draft	70%	$400,000
Bridges	BR-53	Richardson Gap Rd. - Thomas Creek Bridge Shimanek Covered Bridge Restoration (County Bridge ID 637-0.70, State Bridge ID 12965)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Draft 2018-2021 ODOT STIP Project 20314 for repair design scheduled for 2018. Priority Bridge, Linn County 2015-2020 Capital Improvement Projects Draft, Funding Acquired	70%	$1,200,000
Bridges	BR-54	Riverside Dr. - Calapooia River Bridge Replacement or Repair (County Bridge ID 1-1.00, State Bridge ID 43C30)	Priority Bridges to be replaced or HEAVILY REPAIRED based on seismic vulnerability, scour, and sufficiency rating	County			Linn County Bridge Priority List	Priority Bridge	84%	$3,860,000
Bridges	BR-55	Sand Ridge Rd. - Butte Creek Bridge Replacement (County Bridge ID 412-0.61, State Bridge ID 12634A)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Priority Bridge, Linn County 2015-2020 Capital Improvement Projects Draft	70%	$700,000
Bridges	BR-56	City of Scio - Thomas Creek Bridge Gateway Treatment (Scio)	Additional Bridge Construction to enhance the bridge over Thomas Creek, assisting with the creation of a "Linn County Entrance" into the Covered Bridge Capital of the West.	County			Public Outreach and Input	Will be addressed as part of Downtown enhancement project	29%	$100,000
Bridges	BR-57	Shot Pouch Rd. - South Fork Santiam River Bridge Inspection (County Bridge ID 910-002, State Bridge ID 43C25)	Priority Bridges Off System to be Inspected and Load Rated	County			Linn County Bridge Priority List		84%	$25,000
Bridges	BR-58	Sodaville Cut-off Dr. - Oak Creek Bridge Replacement (County Bridge ID 737-0.45, State Bridge ID 11939)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Priority Bridge	70%	$670,000
Bridges	BR-59	Stayton-Scio Dr. - N. Santiam River Overflow Bridge Replacement (County Bridge ID 601-0.28, State Bridge ID 14069)	Priority Bridges to be replaced based on sufficiency rating and seismic issues - Sub Structure	County			Linn County Bridge Priority List	Priority Bridge	84%	$2,575,000
Bridges	BR-60	Tangent Dr. - Lake Creek Trib. Bridge Replacement (County Bridge ID 22-0.08, State Bridge ID 12576) (Tangent)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Priority Bridge	70%	$775,000
Bridges	BR-61	Tangent Dr. - Owl Creek Bridge Replacement (County Bridge ID 122-4.14, State Bridge ID 12244A)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Priority Bridge	70%	$1,440,000
Bridges	BR-62	Tangent Loop - Lake Creek Bridge Replacement (County Bridge ID 402-2.50, State Bridge ID 12573)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Priority Bridge	70%	$500,000
Bridges	BR-63	Three Lakes Rd. - Albany-Santiam Canal Bridge Replacement (County Bridge ID 337-1.47, State Bridge ID 12591A)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Priority Bridge	70%	$600,000
Bridges	BR-64	Upper Berlin Dr. - Hamilton Creek Bridge Replacement (County Bridge ID 903-0.60, State Bridge ID 11958)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Priority Bridge	70%	$1,740,000
Bridges	BR-65	[Project Removed]								
Bridges	BR-66	[Project Removed]								
Bridges	BR-67	Waterloo Rd. - South Santiam River Bridge Rehabilitation (County Bridge ID 721-129, State Bridge ID 02287A)	Rehabilitate bridge to remove weight restriction for popular truck route.	County			Linn County Road Department Reported Needs Meeting		70%	$3,860,000

Category	Project ID	Project Name	Project Description	Primary Jurisdiction	Secondary Juridictions	Coordinated Projects	Source	Status	Evaluation Score	Cost Estimate
Bridges	BR-68	Wheeler St. - Albany-Santiam Canal Bridge Replacement (County Bridge ID 702-0.04, State Bridge ID 12673)	Priority Bridges to be replaced based on sufficiency rating, load rating, scour	County			Linn County Bridge Priority List	Priority Bridge	70%	$2,410,000
Bridges	BR-69	White Oak Rd. - Owl Creek Bridge Replacement (County Bridge ID 118-1.31, State Bridge ID 12257A)	Priority Bridges to be replaced based on sufficiency rating and seismic issues - Super Structure	County			Linn County Bridge Priority List	Priority Bridge	84%	$2,895,000
Bridges	BR-70	Morrison Rd - Little Rock Creek culvert bridge project	Replace with bridge to remove barriers to safe fish passage	County			Linn County Road Department	State ODOT funding designated as mitigation for I-5 Mill Creek Project	56%	$530,000
Bridges	BR-71	Fish Passage Barriers Improvement Projects	Multiple projects. Ongoing improvement program to address Fish Passage Barriers. See appendix list for current priorities.	County			Linn County Road Department	See Appendix List	56%	$10,000,000
Bridges	BR-72	[Project Removed]							84%	
Bridges	BR-73	[Project Removed]							84%	
Bridges	BR-74	OR 99E - Willamette River Bridge Replacement in Harrisburg (MP 29.09)	Replace Willamette River Bridge in Harrisburg (MP 29.09) to remove high priority vertical pinch point identified by the ODOT Highway Over-Dimension Load Pinch Points (HOLPP) Study for Region 2 District 4. Include bicycle and pedestrian accomodations to current design recommendations.	State			ODOT Highway Over-Dimension Load Pinch Points (HOLPP) Study		41%	$13,495,000
Corridor Improvements	CI-01	53rd Avenue Extension (Albany)	New Road or Alignment. Coordinate with City of Albany on project implementation (per Albany TSP)	City			Albany TSP		50%	$17,990,000
Corridor Improvements	CI-02	Columbus St. - Urban Upgrade (Albany)	Urban Upgrade. Coordinate with City of Albany on project implementation (per Albany TSP)	City			Albany TSP		54%	$2,730,000
Corridor Improvements	CI-03	[Project ID changed to BP-34]								
Corridor Improvements	CI-04	Dogwood Avenue Extension (Albany)	New Road or Alignment. Coordinate with City of Albany on project implementation (per Albany TSP)	City			Albany TSP		50%	$3,295,000
Corridor Improvements	CI-05	Ellingson Rd. - Urban Upgrade (Albany)	Urban Upgrade. Coordinate with City of Albany on project implementation (per Albany TSP)	City			Albany TSP		54%	$5,850,000
Corridor Improvements	CI-06	Ellingson Rd. Extension (Albany)	New Road or Alignment. Coordinate with City of Albany on project implementation (per Albany TSP)	City			Albany TSP		53%	$4,430,000
Corridor Improvements	CI-07	[Project ID changed to BP-35]								
Corridor Improvements	CI-08	[Project ID changed to BP-36]								
Corridor Improvements	CI-09	[Project ID changed to BP-49]								
Corridor Improvements	CI-10	I-5 - Interchange and Mainline Capacity Improvement Project from South Jefferson to US 20	Add one 12-foot travel lane in each direction to the I-5 mainline from South Jefferson to US 20. Reconfigure the existing Knox Butte and US 20 interchanges to improve their operation and to add a southbound I-5 access ramp at Knox Butte; improve connectivity between the Interchanges using auxilary lanes on I-5. These closely spaced interchanges function as a connected system. Build new Millersburg Interchange, remove old Millersburg Interchange. Improve local roadway connections to the proposed new and improved interchanges.	State			I-5 South Jefferson to US 34 Design Baseline Evaluation Report	See "I-5 South Jefferson to US 20 Design Baseline Evaluation Report" for more information. ODOT has, subsequent to initial report, said that the project will be split into multiple yet to be determined independent phases to pursue funding and construction.	56%	$66,820,000
Corridor Improvements	CI-11	[Project Removed; Combined with CI-10]								
Corridor Improvements	CI-12	[Project Removed; Combined with CI-10]								
Corridor Improvements	CI-13	I-5 - N. Jefferson – N. Albany	1R Grind inlay to remove rutted/reveled section of I-5	State			2015-2018 ODOT STIP (as amended)	2015-2018 ODOT STIP (as amended)	73%	$6,980,000
Corridor Improvements	CI-14	[Project Removed; Combined with CI-10]								
Corridor Improvements	CI-15	I-5 - Pavement Rehab N. Albany – Halsey	Grind & Patch Concrete Preservation	State			2015-2018 ODOT STIP (as amended)	2015-2018 ODOT STIP (as amended)	73%	$15,300,000
Corridor Improvements	CI-16	I-5 - Pavement Rehab S. Jefferson – N. Albany (NB)	1R Grind/Inlay of NB Lanes	State			2015-2018 ODOT STIP (as amended)	2015-2018 ODOT STIP (as amended)	73%	$6,980,000
Corridor Improvements	CI-17	[Project Removed]								
Corridor Improvements	CI-18	[Project Removed; Combined with CI-10]								
Corridor Improvements	CI-19	[Project ID changed to BP-37]								
Corridor Improvements	CI-20	[Project ID changed to BP-38]								
Corridor Improvements	CI-21	[Project ID changed to BP-39]								
Corridor Improvements	CI-22	Lochner-Columbus Connector (Albany)	New Road or Alignment. Coordinate with City of Albany on project implementation (per Albany TSP)	City			Albany TSP		50%	$2,745,000

Category	Project ID	Project Name	Project Description	Primary Jurisdiction	Secondary Juridictions	Coordinated Projects	Source	Status	Evaluation Score	Cost Estimate
Corridor Improvements	CI-23	Goldfish Farm Rd. to Scravel Hill Rd. - New East/West Collector (Albany)	New Road or Alignment. Coordinate with City of Albany on project implementation (per Albany TSP)	City			Albany TSP		50%	$3,725,000
Corridor Improvements	CI-24	[Project ID changed to BP-40]								
Corridor Improvements	CI-25	[Project ID changed to BP-41]								
Corridor Improvements	CI-26	OR 34 - Access Management	Access management for OR 34 (US 20 to County Line)	State			Linn County Road Department Reported Needs Meeting		51%	$3,475,000
Corridor Improvements	CI-27	[Project Removed]								
Corridor Improvements	CI-28	Santa Maria Avenue Extension (Albany)	New Road or Alignment. Coordinate with City of Albany on project implementation (per Albany TSP)	City			Albany TSP		50%	$1,875,000
Corridor Improvements	CI-29	City of Scio - Pavement Striping Maintenance on County Roads (Scio)	Paint and repair all fog lines, parking spaces, crosswalks, and other striping through Scio on N Main St. and NW/NE 4th St.	County			Public Outreach and Input	Project will be addressed through annual maintenance program.	70%	$60,000
Corridor Improvements	CI-30	[Project ID changed to BP-42]								
Corridor Improvements	CI-31	[Project ID changed to BP-43]								
Corridor Improvements	CI-32	[Project Removed]								
Corridor Improvements	CI-33	[Project Removed]								
Corridor Improvements	CI-34	Three Lakes Rd. - Realignment (Albany)	New Road or Alignment. Coordinate with City of Albany on project implementation (per Albany TSP)	County	City		Albany TSP, Linn County 2015-2020 Capital Improvement Projects Draft	Albany TSP, Linn County 2015-2020 Capital Improvement Projects Draft	50%	$2,000,000
Corridor Improvements	CI-35	[Project Removed]								
Corridor Improvements	CI-36	[Project ID changed to BP-44]								
Corridor Improvements	CI-37	[Project Removed]								
Corridor Improvements	CI-38	[Project ID changed to BP-45]								
Corridor Improvements	CI-39	Clover Ridge Rd. - Corridor Improvements	Improvements to Clover Ridge Road going north from Knox Butte Road to AAMPO Boundary with ODOT's closure of Century Drive	County			AAMPO RTP - Final Draft Project List (Financially Constrained)	AAMPO RTP - Final Draft Project List (Financially Constrained)	51%	$2,000,000
Corridor Improvements	CI-40	[Project Removed; Combined with BP-49]								
Corridor Improvements	CI-41	[Project ID changed to BP-46]								
Future Studies	FS-01	1st Avenue - Mill City Post Office Safety Review	Safety review to identify improvements for all modes accessing the Mill City Post Office.	County			Public Outreach and Input		61%	$30,000
Future Studies	FS-02	[Project Removed]								
Future Studies	FS-03	[Project Removed]								
Future Studies	FS-04	[Project Removed]								
Future Studies	FS-05	Linn County - TDM Programs	Transportation Demand Management Programs (Ongoing)	County			2015-2018 ODOT STIP (as amended)	2015-2018 ODOT STIP (as amended)	52%	$1,480,000
Future Studies	FS-06	[Project ID changed to BP-47]								
Future Studies	FS-07	[Project ID changed to BP-48]								
Future Studies	FS-08	Mill City - Coordination of Paving Projects for City Overlay Work	Coordination with County to maximize maintenance efficiency.	City			Public Outreach and Input	Cost is a maintenance change, and is not included as a capital cost.	35%	$100,000
Future Studies	FS-09	OR 34 - Road Safety Audit	Road Safety Audit for OR 34 (US 20 to County Line) to identify targeted safety countermeasures appropriate for the corridor.	State			Existing Conditions Memo, Linn County Road Department Reported Needs Meeting	Project in progress	81%	$50,000
Future Studies	FS-10	[Project Removed]								
Future Studies	FS-10	[Project Removed]								
Future Studies	FS-11	Promote Enhanced Transit Service for Small Communities in Linn County	Promote Enhanced Transit Service for Small Communities in Linn County through interagency and private/public partnerships. Opportunities include expanded fixed route service area and frequency, as well as promotion of on-demand transit or integration with transportation network companies.	County			Linn County Road Department Reported Needs Meeting		25%	$250,000
Future Studies	FS-12	Regional Transit Coordination	Linn County to support improved regional transit coordination.	County			Public Outreach and Input		25%	$100,000
Future Studies	FS-13	Scenic Byway Coordination - Marys Peak to Pacific	Coordinate with upcoming designation of new "Mary's Peak to Pacific" scenic byway along Highway 34 from I-5 to Highway 101 at the coast, maximizing economic opportunity and ensuring maintenance and safety standards. Corridor management plan includes site-specific interpretive opportunities and action plan, including the establishment of interpretive Byway portal sites on the east end of the Byway.	State	County		From Linn County Road Department		61%	$100,000
Future Studies	FS-14	[Project Removed]								
Future Studies	FS-15	[Project Removed]								

Category	Project ID	Project Name	Project Description	Primary Jurisdiction	Secondary Juridictions	Coordinated Projects	Source	Status	Evaluation Score	Cost Estimate
Future Studies	FS-16	[Project Removed]								
Future Studies	FS-17	US 20 Road Safety Audit	Road Safety Audit (RSA) for US 20 (I-5 to Lebanon)	State			Existing Conditions Memo, Linn County Road Department Reported Needs Meeting	Funding source uncertain.	81%	$50,000
Future Studies	FS-18	Update Emergency Route Designations	Supplement the existing emergency routes in the existing TSP with standby routes in case the major emergency routes have a bridge failure or major crash. Bridges will need to be scour protected and seismic protected, and evaluated to see if there is a need to be on an improvement list.	County			From Linn County Road Department		75%	$100,000
Future Studies	FS-19	Linn Benton Loop Enhancements	Support enhanced transit service between Albany and Corvallis.	Oregon Cascades West Council of Governments	Linn County, Benton County, Albany Area MPO, Corvallis MPO		AAMPO RTP - Final Draft Project List (Aspirational)	AAMPO RTP - Final Draft Project List (Aspirational)	46%	$2,000,000
Future Studies	FS-20	[Project ID changed to BP-50]								
Future Studies	FS-21	Transit Service between Jefferson, Millersburg and Albany	Support MPO efforts to provide transit service to Millersburg and Jefferson.	Albany Area MPO	County and Local Cities		AAMPO RTP - Final Draft Project List (Aspirational)	AAMPO RTP - Final Draft Project List (Aspirational)	19%	$7,000,000
Future Studies	FS-22	Transit Signal Priority	Support implementation of Transit Signal Priority at key intersections along transit routes. Project should consider potential locations for queue jumps.	Albany Area MPO	ODOT, County, and Local Cities		AAMPO RTP - Final Draft Project List (Aspirational)	AAMPO RTP - Final Draft Project List (Aspirational)	46%	$1,200,000
Rural Modernization	RM-01	Seven Mile Ln. - Road Improvements West	Road Widening And Drainage Improvement (Columbus To I-5 Overpass)	County			AAMPO RTP - Final Draft Project List (Financially Constrained), Linn County 2015-2020 Capital Improvement Projects Draft	Linn County 2015-2020 Capital Improvement Projects Draft	47%	$3,000,000
Rural Modernization	RM-02	[Project ID changed to BP-51]								
Rural Modernization	RM-03	[Project Removed]								
Rural Modernization	RM-04	[Project Removed]								
Rural Modernization	RM-05	[Project ID changed to BP-52]								
Rural Modernization	RM-06	[Project Removed]								
Rural Modernization	RM-07	[Project ID changed to BP-53]								
Rural Modernization	RM-08	Foster Dam Rd. and Parking Area - Safety and Access Improvement Project	Safety and access improvements to Foster Dam Rd. and Parking Area	County			Linn County 2015-2020 Capital Improvement Projects Draft	Linn County 2015-2020 Capital Improvement Projects Draft. Funded by Federal Lands Access Program (FLAP)	34%	$1,500,000
Rural Modernization	RM-09	[Project ID changed to BP-54]								
Rural Modernization	RM-10	[Project Removed]								
Rural Modernization	RM-11	[Project ID changed to BP-55]								
Rural Modernization	RM-12	[Project ID changed to BP-56]								
Rural Modernization	RM-13	OR 226 near Lyons - Sight Distance Improvements	Between Kingston-Lyons Dr. and Lyons, improve sight distance by providing additional shoulders and clear zone. Evaluate centerline striping for passing zone compliance.	State			Linn County Road Department Reported Needs Meeting		44%	$3,165,000
Rural Modernization	RM-14	OR 228 / Crawfordsville Dr. (east end of Crawfordsville Dr., near Holley) - Improve Sight Distance and Provide Two-Stage Left Turn Bay	Sight distance improvement. Provide two-stage left turn bay sized for school busses exiting Crawfordsville Dr. heading toward Sweet Home.	State			Linn County Road Department Reported Needs Meeting		44%	$120,000
Rural Modernization	RM-15	OR 228 / Crawfordsville Dr. (west end of Crawfordsville Dr., near Crawfordsville) - Improve Sight Distance	Sight distance improvement	State			Linn County Road Department Reported Needs Meeting		42%	$60,000
Rural Modernization	RM-16	OR 228 / Northern Dr. - Improve Sight Distance	Sight distance improvement	State			Linn County Road Department Reported Needs Meeting		42%	$60,000
Rural Modernization	RM-17	[Project Removed]								
Rural Modernization	RM-18	[Project Removed]								
Rural Modernization	RM-19	[Project ID changed to BP-57]								
Rural Modernization	RM-20	[Project ID changed to BP-58]								
Rural Modernization	RM-21	Sixth Ave. - Road Improvement (Scio)	Road improvements to Sixth Avenue in Scio	County			Linn County 2015-2020 Capital Improvement Projects Draft	Linn County 2015-2020 Capital Improvement Projects Draft	20%	$700,000

Category	Project ID	Project Name	Project Description	Primary Jurisdiction	Secondary Juridictions	Coordinated Projects	Source	Status	Evaluation Score	Cost Estimate
Rural Modernization	RM-22	City of Sweet Home - Local Roads Shoulder Improvements	Widen shoulder pavement outside fog line on local road network in Sweet Home	City			Public Outreach and Input		47%	$2,395,000
Rural Modernization	RM-23	[Project ID changed to BP-59]								
Rural Modernization	RM-24	[Project Removed]								
Rural Modernization	RM-25	[Project ID changed to BP-60]								
Rural Modernization	RM-26	US 20 near Quartzville Rd. - Horizontal Alignment Fix	Fix Horizontal Alignment. Approx. 2 miles east of Quartzville Rd. intersection	State		BP-60	Linn County Road Department Reported Needs Meeting		42%	$955,000
Rural Modernization	RM-27	[Project ID changed to BP-61]								
Spot Improvements	SI-01	Bellinger Scale Rd / Lacomb Dr. - Intersection Safety Project	Bellinger Scale Rd and Lacomb Dr.	County			Existing Conditions		27%	$50,000
Spot Improvements	SI-02	[Project Removed]								
Spot Improvements	SI-03	Brewster Rd. / Mt. Hope Dr. - Hotspot Intersection Safety Improvement	Monitor impact of systemic safety improvements and consider need for additional (beyond systemic) hotspot safety improvements. Potential options include: increase sight distance through vegetation removal and maintenance, which may require hillside removal. Other project options include active beacon warning systems, two-stage left off Mt. Hope Drive, left turn lane off Brewster road.	County			Linn County Road Department Reported Needs Meeting		16%	$60,000
Spot Improvements	SI-04	Brownsville Rd. / Washburn Heights Dr. - Intersection Safety Improvements	Improve intersection safety by addressing limited sight distance through improvements such as: remove obstacles to improve intersection sight distance, slow or alert incoming traffic on Brownsville, or realign/relocate intersection to reduce hazard.	County			Linn County Road Department Reported Needs Meeting		27%	$60,000
Spot Improvements	SI-05	[Project Removed]								
Spot Improvements	SI-06	[Project ID changed to BP-62]								
Spot Improvements	SI-07	Denny School Rd. / Oak St. - Intersection Operations Project	This unsignalized intersection under County jurisdiction is forecast to exceed the mobility target (Level-of-Service D) mobility target for the Oak St. and Hayden Dr. approach critical movements. The improvement evaluation applies additional median space to allow for two-stage left turns and crossings for the eastbound and westbound movements. This would improve intersections to meet the mobility target (LOS D). Final design approval for any intersection improvement would be required by Linn County.	County			Existing Conditions, TSP Future Operations Forecast		45%	$2,000,000
Spot Improvements	SI-08	Denny School Rd. / Airport Dr. - Traffic Calming	Improve horizontal curve area and implement traffic calming. Potential approaches include additional signing, transverse rumble strips, clear zone object removal.	County			Linn County Road Department Reported Needs Meeting		27%	$50,000
Spot Improvements	SI-09	Ellingson Rd. / Columbus St. /Seven Mile Lane (Albany)	Intersection Control Change. Coordinate with City of Albany on project implementation (per Albany TSP)	City	County		Albany TSP		17%	$2,000,000
Spot Improvements	SI-10	Fish Hatchery Dr. / Ede Rd. - Improve Sight Distance	Improve sight distance with vegetation removal and maintenance. Potential alternative projects include realigning Ede Rd. to reduce skew; realigning Fish Hatchery Dr. to reduce horizontal curves.	County			Linn County Road Department Reported Needs Meeting		44%	$95,000
Spot Improvements	SI-11	Fish Hatchery Dr. / Richardson Gap Rd. - Additional Hotspot Intersection Safety Improvements	Monitor for safety improvement due to recent systemic safety improvements (flashers, larger signs, rumble strips, solar powered "stop ahead" sign), and consider additional projects if needed. Additional potential improvements include: roundabout or signalization, if warranted	County			Existing Conditions		27%	$50,000
Spot Improvements	SI-12	Ford Mill Rd. / Lacomb Dr. - Intersection Realignment	Realign and reconstruct intersection to a standard stop-controlled "T" intersection. Consider dedicated left and/or right turn lanes as needed, using existing ROW if possible. Prioritize major collector route though signing.	County			Linn County Road Department Reported Needs Meeting		31%	$70,000
Spot Improvements	SI-13	[Project Removed]								
Spot Improvements	SI-14	[Project ID changed to BP-63]								
Spot Improvements	SI-15	Diamond Hill Dr. / I-5 Interchange - Improve Sight Distance	Sight distance improvement at I-5 interchange northbound terminal, including adjacent Belts Dr. intersection. May involve Little Muddy Creek bridge modification,	State			Linn County Road Department Reported Needs Meeting		58%	$6,465,000
Spot Improvements	SI-16	I-5 Optimization: Add or Upgrade Traffic Cameras	I-5 from County Line to South Boundary of Albany. (MP 236.5 (upgrade) South Jefferson Interchange (new))	State			I-5 Optimization Project		81%	$1,490,000
Spot Improvements	SI-17	I-5 Optimization: Demand Management Strategies	I-5 from County Line to South Boundary of Albany.	State			I-5 Optimization Project		24%	$1,000,000
Spot Improvements	SI-18	I-5 Optimization: Incident Response Program	I-5 from County Line to South Boundary of Albany.	State			I-5 Optimization Project		81%	$2,980,000

Category	Project ID	Project Name	Project Description	Primary Jurisdiction	Secondary Juridictions	Coordinated Projects	Source	Status	Evaluation Score	Cost Estimate
Spot Improvements	SI-19	I-5 Optimization: Ramp Metering (Exit 234 NB On-Ramp)	I-5 from County Line to South Boundary of Albany. (Exit 234 NB On-Ramp, US 20 Interchange)	State			I-5 Optimization Project		81%	$960,000
Spot Improvements	SI-20	Kamph Dr. / Murder Creek Dr. / Shady Bend Rd. - Intersection Improvement	Provide enhanced advanced notification signage on all approaches and provide stop bar and fog line striping.	County			Linn County Road Department Reported Needs Meeting		19%	$50,000
Spot Improvements	SI-21	Kirk Avenue - Improve Cemetery Access (Brownsville)	Improve access to Brownsville Pioneer Cemetery	County			Public Outreach and Input		6%	$60,000
Spot Improvements	SI-22	Knox Butte Rd. / Scravel Hill Rd. - Intersection Safety Project	Monitor for safety improvement due to recent advance warning signs and other systemic improvements. Possible further actions: active beacons or enhanced signage, transverse rumble strips, realign intersection, install roundabout or traffic signal.	County		BP-43	Existing Conditions		27%	$200,000
Spot Improvements	SI-23	Lacomb Rd. / Bond Rd. - Intersection Safety Improvements	Realign intersection to remove skew. Improve sight distance via vertical curve flattening, or improve awareness using enhanced signing or active beacons.	County			Linn County Road Department Reported Needs Meeting		18%	$95,000
Spot Improvements	SI-24	Miller Cemetery / Shelburn Dr. - Intersection Improvement	Change traffic control to 4-way stop.	County			Public Outreach and Input		35%	$15,000
Spot Improvements	SI-25	Oakville Rd / Tangent Dr. - Intersection Safety Project	Oakville Rd and Tangent Dr.	County			Existing Conditions		27%	$50,000
Spot Improvements	SI-26	Old Holly Rd. (aka Alder Street) / 8th Avenue - Intersection Improvement	Intersection modification to improve sight distance.	County			Public Outreach and Input		16%	$60,000
Spot Improvements	SI-27	Old Mill Rd. - Urban Commercial Improvements (Tangent)	Improvements to roadway to accommodate commercial activity and pedestrian and bicycle access.	City			Public Outreach and Input		47%	$1,165,000
Spot Improvements	SI-28	OR 164 / Scravel Hill Rd. - Intersection Operations Project	This unsignalized intersection is forecast to fail to meet the mobility target (v/c of 0.75) for the Scravel Hill Rd. approach northbound left turn in the future forecast. (The conceptual improvement evaluation applies a new right turn lane on Scravel Hill Rd. and a short receiving lane on OR 164. This would reduce the critical movement v/c ratio to 0.44.) Final design approval for any intersection improvement would be required by ODOT.	State			Existing Conditions, TSP Future Operations Forecast		31%	$135,000
Spot Improvements	SI-29	OR 226 / Brewster Rd. - Additional Intersection Safety Improvement	Monitor outcomes from systemic safety improvements. As needed, additionally enhance driver awareness of stop sign, through improvements such as including flashers, larger signs, transverse rumble strips, and/or solar powered "stop ahead" sign	State	County		Linn County Road Department Reported Needs Meeting		19%	$50,000
Spot Improvements	SI-30	OR 226 / Fish Hatchery Dr. - Additional Intersection Safety Improvements	Monitor outcomes from systemic safety improvements. As needed, additionally enhance driver awareness of stop sign, through improvements such as including flashers, larger signs, transverse rumble strips, and/or solar powered "stop ahead" sign	State	County		Linn County Road Department Reported Needs Meeting		19%	$50,000
Spot Improvements	SI-31	[Project Removed]								
Spot Improvements	SI-32	OR 226 / Kingston Jordan Rd. - Sight Distance Improvements	Improve sight distance onto OR 226 through vegetation removal.	State			Linn County Road Department Reported Needs Meeting		58%	$25,000
Spot Improvements	SI-33	OR 226 / McCully Mountain Rd. - Intersection Improvement (Lyons)	Improve sight distance or provide improved advance warning.	State			Linn County Road Department Reported Needs Meeting		30%	$50,000
Spot Improvements	SI-34	OR 226 / Richardson Gap Rd. - Additional Intersection Safety Improvements	Monitor outcomes from systemic safety improvements. As needed, additionally enhance driver awareness of stop sign, through improvements such as including flashers, larger signs, transverse rumble strips, and/or solar powered "stop ahead" sign	State	County		Linn County Road Department Reported Needs Meeting		32%	$50,000
Spot Improvements	SI-35	OR 228 / Fern Ridge Rd. and Rowell Hill Rd. (north end) - Shoulder and Sight Distance Improvement	Widen shoulder on OR 228 at curves near Fern Ridge Rd. / Rowell Hill Rd., remove trees west of intersection to improve sight distance.	State			Linn County Road Department Reported Needs Meeting		58%	$160,000
Spot Improvements	SI-36	[Project Removed]								
Spot Improvements	SI-37	[Project Removed]								
Spot Improvements	SI-38	[Project Removed]								
Spot Improvements	SI-39	[Project Removed]								
Spot Improvements	SI-40	[Project Removed]								
Spot Improvements	SI-41	[Project Removed]								
Spot Improvements	SI-42	[Project Removed]								
Spot Improvements	SI-43	[Project Removed]								
Spot Improvements	SI-44	[Project Removed; included in BP-57]								

Category	Project ID	Project Name	Project Description	Primary Jurisdiction	Secondary Juridictions	Coordinated Projects	Source	Status	Evaluation Score	Cost Estimate
Spot Improvements	SI-45	[Project Removed]								
Spot Improvements	SI-46	[Project Removed]								
Spot Improvements	SI-47	OR 99E / Railroad Crossing - Railroad Crossing Improvements (Harrisburg)	Monitor driver compliance of recent improvements at railroad crossing just north of Peoria Rd. Consider additional enhancements if poor compliance or crashes continue, such as transverse rumble strips.	State			Linn County Road Department Reported Needs Meeting		32%	$20,000
Spot Improvements	SI-48	Diamond Hill Rd. / Powerline Rd. - Additional Hotspot Intersection Safety Improvements	Monitor for safety improvement due to recent systemic safety improvements, consider additional improvements if needed. Possible further improvements: additional sign and marking enhancements, realign intersection, install roundabout, install transverse rumble strips.	County			Linn County Road Department Reported Needs Meeting		32%	$50,000
Spot Improvements	SI-49	Richardson Gap Rd. / Cole School Rd. / Ridge Dr. - Intersection Improvements	Realign intersection including full redesign and rebuild to provide improved sight distances and better turning radius for all movements, especially the north-south major collector flow.	County			Linn County Road Department Reported Needs Meeting		29%	$1,500,000
Spot Improvements	SI-50	Ridgeway Rd. / Marks Ridge Rd. - Intersection Realignment	Realign intersection to improve sight distance and reduce conflicts, while maintaining truck-friendly geometry if needed. Potential design is an offset-T intersection, with 4-way stop control.	County			Linn County Road Department Reported Needs Meeting		39%	$300,000
Spot Improvements	SI-51	[Project Removed]								
Spot Improvements	SI-52	Riverside Dr. / Oakville Rd. - Improve Sight Distance	Manage vegetation to the south and north of intersection. Note, limited ROW and vegetation are on private property.	County			Linn County Road Department Reported Needs Meeting		44%	$42,000
Spot Improvements	SI-53	Rock Hill Dr. / South 5th St. - Intersection Improvements	Intersection Improvements based on field review of operational and safety performance.	County			Linn County Road Department Reported Needs Meeting		27%	$50,000
Spot Improvements	SI-54	Rock Hill Dr. / South Main Rd. - Improve Sight Distance	Improve sight distance at intersection. Project options include vegetation removal or vertical curve flattening.	County			Linn County Road Department Reported Needs Meeting		44%	$110,000
Spot Improvements	SI-55	Sandner Dr. / Kingston Jordan Dr. - Intersection Realignment and Safety Improvements	Realign intersection to remove skew. Improve driver awareness using systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements, Enhanced Signing Treatments.	County			Linn County Road Department Reported Needs Meeting		25%	$900,000
Spot Improvements	SI-56	Sodaville Rd. / Cascade Dr. / McCraven Ln. - Additional Hotspot Intersection Safety Improvements	Monitor for impact of systemic safety improvements, and consider converting intersection to 4-way stop and realigning McCraven Ln. if safety performance does not improve.	County			Linn County Road Department Reported Needs Meeting		35%	$480,000
Spot Improvements	SI-57	Spicer Dr. / Engle Rd. - Intersection Realignment	Realign intersection, convert to stop-controlled.	County			Linn County Road Department Reported Needs Meeting		33%	$700,000
Spot Improvements	SI-58	Spicer Dr. / Kennel Rd. - Additional Hotspot Intersection Safety Improvement	Monitor for impact of systemic safety improvements, and consider intersection realignment if safety performance does not improve.	County			Linn County Road Department Reported Needs Meeting		19%	$1,500,000
Spot Improvements	SI-59	Steckley Rd. / Sand Ridge Rd. - Intersection Improvement	Improve driver understanding of intersection traffic control. For example, a realignment that provides a more traditional stop-controlled "T" intersection, with dedicated turn or slip lanes as needed.	County			Linn County Road Department Reported Needs Meeting		31%	$50,000
Spot Improvements	SI-60	US 20 - Lower Sunken Grade Slide Repair	Provide a permanent fix to the slide area (M.P. 55.4)	State			2015-2018 ODOT STIP (as amended)	ODOT STIP Project 19726 is planned for bid letting in late 2018.	77%	$4,555,000
Spot Improvements	SI-61	US 20 - Sweet Home Police Department Access Improvements	Vehicle and pedestrian access improvements	State			Public Outreach and Input		39%	$230,000
Spot Improvements	SI-62	US 20 / Crowfoot Rd. - Intersection Improvement	Intersection improvement to reduce conflict points and consolidate access points on US 20. Implement in collaboration with City of Lebanon.	State	County	BP-34	Linn County Road Department Reported Needs Meeting	In Lebanon UGB on State Hwy.	29%	$115,000
Spot Improvements	SI-63	US 20 / Foster Dam Rd. - Railroad Undercrossing Improvement	Improve Railroad crossing (AERR Trestle) to remove height restriction. Location was identified as a high priority pinch point in the ODOT Highway Over-Dimension Load Pinch Points (HOLPP) Study for Region 2 District 4 as critical to both everyday freight movement and disaster response services. Coordinate with results of Project BP-3 (ODOT STIP Project 18853, Multiuse Path along US 20 from 54th Ave. to Riggs Hill Rd.), expected bid letting early 2018.	State		BP-3	Linn County Road Department Reported Needs Meeting		56%	$2,995,000
Spot Improvements	SI-64	US 20 / Knox Butte Dr. - Intersection Operations Project	This unsignalized intersection is forecast to fail to meet the mobility target (v/c of 0.75) for the Knox Butte Dr. approach southbound left turn in the future forecast. (The conceptual improvement evaluation applies separated left turn and right turn lanes on Knox Butte Dr., creating a formalized median space to allow for a two-stage southbound left turn. This would reduce the critical movement v/c ratio to 0.71.) Final design approval for any intersection improvement would be required by ODOT.	State	County		Existing Conditions, ARTS 150% List suggestions.		52%	$180,000
Spot Improvements	SI-65	[Project Removed]								

Category	Project ID	Project Name	Project Description	Primary Jurisdiction	Secondary Juridictions	Coordinated Projects	Source	Status	Evaluation Score	Cost Estimate
Spot Improvements	SI-66	US 20 / OR 226 - Intersection Operations Project	This unsignalized intersection is forecast to fail to meet the mobility target (v/c of 0.75) for the OR 226 approach westbound left turn in the future forecast. (The conceptual improvement evaluation applies separated left and right turn lanes on OR 226, creating a formalized median space to allow for a two-stage westbound left turn. This would reduce the critical movement v/c ratio to 0.50.) Final design approval for any intersection improvement would be required by ODOT.	State			Existing Conditions		47%	$180,000
Spot Improvements	SI-67	[Project Removed]								
Spot Improvements	SI-68	[Project Removed]								
Spot Improvements	SI-69	US 20 near OR 126 - Safety Improvement	Safety improvement between Canyon Creek Rd. and OR 126 (McKenzie Highway)	State			Linn County Road Department Reported Needs Meeting		36%	$25,750,000
Spot Improvements	SI-70	US 20 near OR 22 - Safety Improvement	Weather-related safety improvement approximately four miles east of Santiam Junction / OR 22	State			Linn County Road Department Reported Needs Meeting		36%	$280,000
Spot Improvements	SI-71	Walnut Dr. / Oakville Rd. - Intersection and Roadway Improvement	Improve intersection and roadway for freight and safety	County			Linn County 2015-2020 Capital Improvement Projects Draft	Linn County 2015-2020 Capital Improvement Projects Draft	25%	$10,000
Spot Improvements	SI-72	[Project ID changed to BP-64]								
Spot Improvements	SI-73	[Project Removed; Added as SI-86 through SI-91]								
Spot Improvements	SI-74	Slide Area Maintenance List Program	Ongoing improvement program to address slide areas. See appendix list for current priorities.	County			Linn County Road Department Reported Needs Meeting	See Appendix List	50%	$17,405,000
Spot Improvements	SI-75	Restricted Roads Improvements List Program	Ongoing improvement program to address geometrically access restricted roads. See appendix list for current priorities.	County			Linn County Road Department Reported Needs Meeting	See Appendix List	50%	$8,670,000
Spot Improvements	SI-76	Flood Closures Maintenance List Program	Ongoing improvement program to address flood closures and high-water areas. See appendix list for current priorities.	County			Linn County Road Department Reported Needs Meeting	See Appendix List	77%	$12,500,000
Spot Improvements	SI-77	Columbus St. - OR 34 Access Modifications	Change Columbus St. access from OR 34 to right-in-right-out and redirect other traffic to Seven Mile Ln.	County			AAMPO RTP - Final Draft Project List (Financially Constrained)	AAMPO RTP - Final Draft Project List (Financially Constrained), ODOT STIP Project 19662 includes this modification and is scheduled for construction late 2017/early 2018.	32%	$105,000
Spot Improvements	SI-78	[Project ID changed to BP-65]								
Spot Improvements	SI-79	[Project ID changed to BP-66]								
Spot Improvements	SI-80	OR 164 / I-5 Northbound Ramps - New Traffic Signal	Install new signal, when warranted, per AAMPO RTP.	State			AAMPO RTP - Final Draft Project List (Aspirational)	AAMPO RTP - Final Draft Project List (Aspirational)	28%	$2,000,000
Spot Improvements	SI-81	OR 228 / Fern Ridge Rd. (south end) - Sight Distance Improvement	Improve sight distance.	State			Public Outreach and Input		36%	$160,000
Spot Improvements	SI-82	OR 34 / Denny School Rd. - Operations Improvement	This unsignalized intersection fails to meet the mobility target (v/c ratio of 0.75) for the Denny School Rd. approach northbound left turn in the existing conditions and future forecast. This intersection currently has median improvements that allow for two-stage left turns off of Denny School Road. (As the intersection does not meet preliminary signal warrants based on 2040 traffic volume forecast, a traffic signal was not considered to be an appropriate solution. The conceptual improvement evaluation applies a single lane roundabout while maintaining the bypasses for eastbound right turning and westbound through traffic. This would improve critical approach operations to a v/c ratio of 0.80 in the 30th highest hour and 0.65 in the average weekday p.m. peak hour.) Final design approval for any intersection improvement would be required by ODOT.	State		SI-07, SI-08	TSP Future Operations Forecast		33%	$2,395,000
Spot Improvements	SI-83	OR 34 / Peoria Rd. - Operations Improvement	This signalized intersection fails to meet the mobility target (v/c ratio of 0.70) in the existing and future forecast conditions. Intersection improvements to meet the mobility target would require major changes to the intersection (Conceptual improvement evaluation considered widening OR 34 to include additional left turn and through lanes on OR 34, which acheives a v/c ratio of 0.67). The appropriate solutions at this intersection need to consider the larger context and vision for OR 34 between I-5 and Corvallis. Final design approval for any intersection improvement would be required by ODOT. This corridor should be considered as an area for further study through a future refinement plan.	State			TSP Future Operations Forecast		33%	$3,600,000
Spot Improvements	SI-84	[Project Removed]								

Category	Project ID	Project Name	Project Description	Primary Jurisdiction	Secondary Juridictions	Coordinated Projects	Source	Status	Evaluation Score	Cost Estimate
Spot Improvements	SI-85	US 20 / Pleasant Valley Rd. (Sweet Home) - Additional Hotspot Intersection Safety Improvements	Monitor impact of systemic safety improvements and consider need for additional (beyond systemic) hotspot safety improvements. Potential options include: Enhanced Signing Treatment, Roundabout, Traffic Signal pending engineering investigation and warrant.	State			Public Outreach and Input		44%	$2,395,000
Spot Improvements	SI-86	7 Mile Lane / Fry Rd. / Selmet Access Rd - Safety Improvement	Evaluate intersection for safety improvements including sight distance, sign and marking improvements, and realignment options.	County			Linn County Road Department		44%	$60,000
Spot Improvements	SI-87	Main St / Sodaville Rd / Sodaville Mountain Home Rd - Safety Improvement	Evaluate intersection for safety improvements including sight distance, sign and marking improvements, and realignment options.	County			Linn County Road Department		44%	$60,000
Spot Improvements	SI-88	Foster Dam Rd. / N. River Dr. - Safety Improvement	Evaluate intersection for safety improvements including sight distance, sign and marking improvements, and realignment options.	County		SS-010, RM-08, BP-13	Linn County Road Department		44%	$60,000
Spot Improvements	SI-89	Spicer Dr. / Grand Prairie Rd. - Safety Improvement	Evaluate intersection for safety improvements including sight distance, sign and marking improvements, and realignment options.	County		SS-075	Linn County Road Department		44%	$60,000
Spot Improvements	SI-90	Spicer Dr. / Goltra Rd. - Safety Improvement	Evaluate intersection for safety improvements including sight distance, sign and marking improvements, and realignment options.	County		SS-075	Linn County Road Department		44%	$60,000
Spot Improvements	SI-91	McDowell Creek Dr. / Pleasant Valley Rd. - Safety Improvement	Evaluate intersection for safety improvements including sight distance, sign and marking improvements, and realignment options.	County		SS-011	Linn County Road Department		44%	$60,000
Systemic Safety	SS-001	Brewster Rd. / Griggs Dr. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	County			ODOT Oregon Intersection Safety Implementation Plan		29%	$3,780
Systemic Safety	SS-002	Brewster Rd. / Mt. Hope Dr. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	County			ODOT Oregon Intersection Safety Implementation Plan		29%	$3,780
Systemic Safety	SS-003	Columbus St. - Systemic Roadway Departure Improvements	Provide systemic roadway departure improvements including: Alignment Delineation, Edgeline Rumble Strips, and Enhanced Signs and Markings.	County			ODOT Roadway Departure Safety Implementation Plan		29%	$41,000
Systemic Safety	SS-004	Denny School Rd. / Oak St. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements, New or Upgraded Lighting	County			ODOT Oregon Intersection Safety Implementation Plan		29%	$11,280
Systemic Safety	SS-005	Grand Prairie Dr. / Three Lakes Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	County			ODOT Oregon Intersection Safety Implementation Plan		29%	$3,780
Systemic Safety	SS-006	Grand Prairie Rd. / Waverly Dr. (Albany) - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Signal and Sign Improvements, Change of Permitted and Protected Left Turn Phase to Protected Only (or Flashing Yellow Arrow), Enforcement Assisted Lights	County			ODOT Oregon Intersection Safety Implementation Plan		29%	$8,280
Systemic Safety	SS-007	I-5 - Alignment Delineation and Lighting	Provide Alignment Delineation and Lighting on I-5 at appropriate locations between M.P. 237.5 and M.P. 240.34, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State			ODOT Roadway Departure Safety Implementation Plan		71%	$912,200
Systemic Safety	SS-008	[Project Removed]								
Systemic Safety	SS-009	Lyons-Mill City Dr. - Systemic Roadway Departure Improvements	Provide systemic roadway departure improvements including: Enhanced Signs and Markings, and Tree Removal	County			ODOT Roadway Departure Safety Implementation Plan		71%	$181,000
Systemic Safety	SS-010	Marks Ridge Dr. - Systemic Roadway Departure Improvements	Provide systemic roadway departure improvements including: Centerline Rumble Strips.	County			ODOT Roadway Departure Safety Implementation Plan		71%	$25,000
Systemic Safety	SS-011	McDowell Creek Dr. - Systemic Roadway Departure Improvements	Provide systemic roadway departure improvements including: Signs and Markings	County			ODOT Roadway Departure Safety Implementation Plan		71%	$5,000
Systemic Safety	SS-012	Mt Hope Dr. - Systemic Roadway Departure Improvements	Provide systemic roadway departure improvements including: Signs and Markings	County			ODOT Roadway Departure Safety Implementation Plan		71%	$5,000
Systemic Safety	SS-013	N Main St. - Systemic Roadway Departure Improvements	Provide systemic roadway departure improvements including: Signs and Markings	County			ODOT Roadway Departure Safety Implementation Plan		71%	$5,000
Systemic Safety	SS-014	Oak St. / 2nd St. (Lebanon) - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Enforcement Assisted Lights	County			ODOT Oregon Intersection Safety Implementation Plan		43%	$500
Systemic Safety	SS-015	Oak St. / Fur Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	County			ODOT Oregon Intersection Safety Implementation Plan		71%	$3,780
Systemic Safety	SS-016	Oak St. / S. 2nd St. (Lebanon) - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	County			ODOT Oregon Intersection Safety Implementation Plan		71%	$3,780
Systemic Safety	SS-017	Old Salem Rd. - Systemic Roadway Departure Improvements	Provide systemic roadway departure improvements including: Signs and Markings	County			ODOT Roadway Departure Safety Implementation Plan		71%	$5,000
Systemic Safety	SS-018	OR 126 - Centerline Rumble Strips	Provide Centerline Rumble Strips on OR 126 at appropriate locations between M.P. 5.68 and M.P. 8.52, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State			ODOT Roadway Departure Safety Implementation Plan		71%	$7,500
Systemic Safety	SS-019	OR 126 - Edgeline Rumble Strips	Provide Edgeline Rumble Strips on OR 126 at appropriate locations between M.P. 2.84 and M.P. 9.09, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State			ODOT Roadway Departure Safety Implementation Plan		71%	$4,500
Systemic Safety	SS-020	OR 126 - Enhanced Signing and Marking for Curves	Provide Enhanced Signing and Marking for Curves on OR 126 at appropriate locations between M.P. 6.25 and M.P. 10.23, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State			ODOT Roadway Departure Safety Implementation Plan		71%	$7,500
Systemic Safety	SS-021	OR 164 - Shoulder Rumble Strips	Provide Shoulder Rumble Strips on OR 164 at appropriate locations between M.P. 7.95 and M.P. 8.52, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State			ODOT Roadway Departure Safety Implementation Plan		71%	$1,500
Systemic Safety	SS-022	OR 164 / I-5 Northbound Ramps - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State			ODOT Oregon Intersection Safety Implementation Plan		71%	$3,780

Category	Project ID	Project Name	Project Description	Primary Jurisdiction	Secondary Juridictions	Coordinated Projects	Source	Status	Evaluation Score	Cost Estimate
Systemic Safety	SS-023	OR 22 - Centerline Rumble Strips	Provide Centerline Rumble Strips on OR 22 at appropriate locations between M.P. 68.18 and M.P. 82.39, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State			ODOT Roadway Departure Safety Implementation Plan	ODOT STIP Project 19692, Region 2 Centerline Rumble Strips Unit 3, includes this location and is currently in design phase, expected bid letting in mid 2018.	71%	$37,500
Systemic Safety	SS-024	OR 22 - Shoulder and Edgeline Rumble Strips	Provide Shoulder and Edgeline Rumble Strips on OR 22 at appropriate locations between M.P. 61.93 and M.P. 81.82, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State			ODOT Roadway Departure Safety Implementation Plan		71%	$31,500
Systemic Safety	SS-025	OR 22 - Enhanced Signing and Marking for Curves	Provide Enhanced Signing and Marking for Curves on OR 22 at appropriate locations between M.P. 67.61 and M.P. 66.48, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State			ODOT Roadway Departure Safety Implementation Plan	ODOT STIP Project 19696, Region 2 Curve Warning Signs Part 3, includes this location and is planned for bid letting in early 2018.	71%	$22,500
Systemic Safety	SS-026	[Project Removed]								
Systemic Safety	SS-027	OR 226 - Shoulder and Edgeline Rumble Strips	Provide Shoulder and Edgeline Rumble Strips on OR 226 at appropriate locations between M.P. 4.55 and M.P. 24.43, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State			ODOT Roadway Departure Safety Implementation Plan		71%	$22,500
Systemic Safety	SS-028	OR 226 - Enhanced Signing and Marking for Curves	Provide Enhanced Signing and Marking for Curves on OR 226 at appropriate locations between M.P. 10.8 and M.P. 23.3, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State			ODOT Roadway Departure Safety Implementation Plan	ODOT STIP Project 19696, Region 2 Curve Warning Signs Part 3, includes this location and is planned for bid letting in early 2018.	71%	$10,000
Systemic Safety	SS-029	[Project Removed]								
Systemic Safety	SS-030	OR 226 / 1st Ave. and Main St. - Systemic Intersection Safety Improvements (Scio)	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State			ODOT Oregon Intersection Safety Implementation Plan		71%	$3,780
Systemic Safety	SS-031	OR 226 / Brewster Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements, New or Upgraded Lighting, High Friction Surface, Traffic Calming Improvements.	State			ODOT Oregon Intersection Safety Implementation Plan		71%	$67,560
Systemic Safety	SS-032	OR 226 / Cold Springs Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State			ODOT Oregon Intersection Safety Implementation Plan		71%	$3,780
Systemic Safety	SS-033	OR 226 / Fish Hatchery Dr. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State			ODOT Oregon Intersection Safety Implementation Plan		71%	$3,780
Systemic Safety	SS-034	OR 226 / Gilkey Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements. Consider addition of transverse rumble strips or other traffic calming elements.	State	County		Public Outreach and Input		71%	$12,600
Systemic Safety	SS-035	OR 226 / Richardson Gap Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State			ODOT Oregon Intersection Safety Implementation Plan		71%	$3,780
Systemic Safety	SS-036	OR 228 - Alignment Delineation and Lighting	Provide Alignment Delineation and Lighting on OR 228 at appropriate locations between M.P. 7.95 and M.P. 8.52, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State			ODOT Roadway Departure Safety Implementation Plan		71%	$2,500
Systemic Safety	SS-037	OR 228 - Centerline Rumble Strips	Provide Centerline Rumble Strips on OR 228 at appropriate locations between M.P. 5.68 and M.P. 8.52, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State			ODOT Roadway Departure Safety Implementation Plan	ODOT STIP Project 19692, Region 2 Centerline Rumble Strips Unit 3, includes this location and is currently in design phase, expected bid letting in mid 2018.	71%	$7,500
Systemic Safety	SS-038	OR 228 - Shoulder and Edgeline Rumble Strips	Provide Shoulder and Edgeline Rumble Strips on OR 228 at appropriate locations between M.P. 2.84 and M.P. 20.45, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State			ODOT Roadway Departure Safety Implementation Plan		71%	$19,500
Systemic Safety	SS-039	OR 228 - Enhanced Signing and Marking for Curves	Provide Enhanced Signing and Marking for Curves on OR 228 at appropriate locations between M.P. 7.39 and M.P. 19.89, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State			ODOT Roadway Departure Safety Implementation Plan		71%	$10,000
Systemic Safety	SS-040	[Project Removed]								
Systemic Safety	SS-041	OR 228 / Bush Creek Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements for the Bush Creek Rd. approach including: Basic Set of Sign and Marking Improvements	State	County		Public Outreach and Input		71%	$3,780
Systemic Safety	SS-042	OR 228 / I-5 Southbound Ramps - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State			ODOT Oregon Intersection Safety Implementation Plan		71%	$3,780
Systemic Safety	SS-043	OR 34 / Denny School Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements, Enhanced Signing Treatments, High Friction Surface	State			ODOT Oregon Intersection Safety Implementation Plan	ODOT STIP Project 19662 (OR 34 Safety Improvements) includes enhanced intersection warning for OR 34. Expected bid letting in late 2017.	71%	$28,880
Systemic Safety	SS-044	OR 34 / Goltra Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State			ODOT Oregon Intersection Safety Implementation Plan	ODOT STIP Project 19662 (OR 34 Safety Improvements) includes enhanced intersection warning for OR 34. Expected bid letting in late 2017.	71%	$3,780

Category	Project ID	Project Name	Project Description	Primary Jurisdiction	Secondary Juridictions	Coordinated Projects	Source	Status	Evaluation Score	Cost Estimate
Systemic Safety	SS-045	OR 34 / I-5 Northbound Ramps - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Signal and Sign Improvements	State			ODOT Oregon Intersection Safety Implementation Plan	ODOT STIP Project 19662 (OR 34 Safety Improvements) includes enhanced intersection warning for OR 34. Expected bid letting in late 2017.	71%	$4,000
Systemic Safety	SS-046	OR 34 / I-5 Southbound Ramps - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Signal and Sign Improvements, Change of Permitted and Protected Left Turn Phase to Protected Only (or Flashing Yellow Arrow)	State			ODOT Oregon Intersection Safety Implementation Plan	ODOT STIP Project 19662 (OR 34 Safety Improvements) includes enhanced intersection warning for OR 34. Expected bid letting in late 2017.	71%	$8,000
Systemic Safety	SS-047	OR 34 / McFarland Rd. / Looney Dr. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State			ODOT Oregon Intersection Safety Implementation Plan	ODOT STIP Project 19662 (OR 34 Safety Improvements) includes enhanced intersection warning for OR 34. Expected bid letting in late 2017.	71%	$3,780
Systemic Safety	SS-048	OR 34 / Oakville Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State			ODOT Oregon Intersection Safety Implementation Plan	ODOT STIP Project 19662 (OR 34 Safety Improvements) includes enhanced intersection warning for OR 34. Expected bid letting in late 2017.	71%	$3,780
Systemic Safety	SS-049	OR 34 / Olson Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State			ARTS 300% List suggestions		71%	$3,780
Systemic Safety	SS-050	OR 34 / OR 34 Bypass - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Signal and Sign Improvements. Evaluate intersection for Enhanced Signing Treatment, and advanced treatments such as actuated dilemma zone protection system.	State			ODOT Oregon Intersection Safety Implementation Plan, ARTS 300% List.	Funded ARTS Systemic project	71%	$9,000
Systemic Safety	SS-051	OR 34 / Peoria Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Hot Spot Improvements. Evaluate intersection for Enhanced Signing Treatment, and advanced treatments such as actuated dilemma zone protection system.	State			ODOT Oregon Intersection Safety Implementation Plan, ARTS 150% List	Funded ARTS Systemic project	43%	$9,500
Systemic Safety	SS-052	OR 34 / Seven Mile Ln. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Hot Spot Improvements	State			ODOT Oregon Intersection Safety Implementation Plan		43%	$9,000
Systemic Safety	SS-053	OR 99E - Centerline Rumble Strips	Provide Centerline Rumble Strips on OR 99E at appropriate locations between M.P. 11.36 and M.P. 14.2, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State			ODOT Roadway Departure Safety Implementation Plan		71%	$7,500
Systemic Safety	SS-054	OR 99E - Shoulder and Edgeline Rumble Strips	Provide Shoulder and Edgeline Rumble Strips on OR 99E at appropriate locations between M.P. 7.39 and M.P. 26.7, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State			ODOT Roadway Departure Safety Implementation Plan		71%	$13,500
Systemic Safety	SS-055	OR 99E - Enhanced Signing and Marking for Curves	Provide Enhanced Signing and Marking for Curves on OR 99E at appropriate locations between M.P. 10.23 and M.P. 12.5, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State			ODOT Roadway Departure Safety Implementation Plan		71%	$5,000
Systemic Safety	SS-056	[Project Removed]								
Systemic Safety	SS-057	OR 99E / Cartney Dr. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State			ODOT Oregon Intersection Safety Implementation Plan		71%	$3,780
Systemic Safety	SS-058	OR 99E / Fayetteville Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements. Monitor outcomes and consider Enhanced Signing Treatment	State			Linn County Road Department Reported Needs Meeting		71%	$16,380
Systemic Safety	SS-059	OR 99E / La Salle St. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State			ODOT Oregon Intersection Safety Implementation Plan		71%	$3,780
Systemic Safety	SS-060	OR 99E / Lake Creek Dr. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State			ODOT Oregon Intersection Safety Implementation Plan		71%	$3,780
Systemic Safety	SS-061	OR 99E / N. Lake Creek Dr. - Systemic Intersection Safety Improvements (Tangent)	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State			ODOT Oregon Intersection Safety Implementation Plan		71%	$3,780
Systemic Safety	SS-062	OR 99E / OR 228 - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State			ODOT Oregon Intersection Safety Implementation Plan		71%	$3,780
Systemic Safety	SS-063	Peoria Rd. - Systemic Roadway Departure Improvements	Provide systemic roadway departure improvements including: Alignment Delineation, Centerline Rumble Strips, Edgeline Rumble Strips, Signs and Markings, and Tree Removal.	County			ODOT Roadway Departure Safety Implementation Plan		57%	$670,280
Systemic Safety	SS-064	Powerline Rd. / Priceboro Dr. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	County			ODOT Oregon Intersection Safety Implementation Plan		57%	$3,780
Systemic Safety	SS-065	Price Rd. - Systemic Roadway Departure Improvements	Provide systemic roadway departure improvements including: Urban Signs and Markings.	County			ODOT Roadway Departure Safety Implementation Plan		57%	$5,000
Systemic Safety	SS-066	Priceboro Rd. / 6th St. (Harrisburg) - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	County			ODOT Oregon Intersection Safety Implementation Plan		57%	$3,780
Systemic Safety	SS-067	Queen Ave. - Systemic Roadway Departure Improvements	Provide systemic roadway departure improvements to County jurisdiction portion of road (Broadway St. to Riverside Dr.) including: Edgeline Rumble Strips, Signs and Markings, and Tree Removal.	County			ODOT Roadway Departure Safety Implementation Plan		57%	$91,240
Systemic Safety	SS-068	River Dr. A. - Systemic Roadway Departure Improvements	Provide systemic roadway departure improvements including: Signs and Markings	County			ODOT Roadway Departure Safety Implementation Plan		57%	$5,000
Systemic Safety	SS-069	Rock Hill Dr. / Brownsville Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	County			ODOT Oregon Intersection Safety Implementation Plan		57%	$3,780

Category	Project ID	Project Name	Project Description	Primary Jurisdiction	Secondary Juridictions	Coordinated Projects	Source	Status	Evaluation Score	Cost Estimate
Systemic Safety	SS-070	Rock Hill Dr. / Butte Creek Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	County			ODOT Oregon Intersection Safety Implementation Plan		57%	$3,780
Systemic Safety	SS-071	Rock Hill Dr. / Sand Ridge Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	County			ODOT Oregon Intersection Safety Implementation Plan		57%	$3,780
Systemic Safety	SS-072	Scravel Hill Rd. / Teddy Ave. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	County			ODOT Oregon Intersection Safety Implementation Plan		57%	$3,780
Systemic Safety	SS-073	Shelburn Dr. - Systemic Roadway Departure Improvements	Provide systemic roadway departure improvements including: Signs and Markings	County			ODOT Roadway Departure Safety Implementation Plan		57%	$5,000
Systemic Safety	SS-074	Sodaville Rd. / Cascade Dr. / McCraven Ln. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	County			ODOT Oregon Intersection Safety Implementation Plan		57%	$3,780
Systemic Safety	SS-075	Spicer Dr. - Systemic Roadway Departure Improvements	Provide systemic roadway departure improvements including: Signs and Markings	County			ODOT Roadway Departure Safety Implementation Plan		57%	$5,000
Systemic Safety	SS-076	Spicer Dr. / Kennel Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements.	County			ODOT Oregon Intersection Safety Implementation Plan		57%	$3,780
Systemic Safety	SS-077	Spring St A. - Systemic Roadway Departure Improvements	Provide systemic roadway departure improvements including: Signs and Markings	County			ODOT Roadway Departure Safety Implementation Plan		57%	$5,000
Systemic Safety	SS-078	Upper Calapooia Dr. - Systemic Roadway Departure Improvements	Provide systemic roadway departure improvements including: Signs and Markings	County			ODOT Roadway Departure Safety Implementation Plan		57%	$5,000
Systemic Safety	SS-079	US 20 - Alignment Delineation and Lighting	Provide Alignment Delineation and Lighting on US 20 at appropriate locations between M.P. 77.84 and M.P. 80.11, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State			ODOT Roadway Departure Safety Implementation Plan		71%	$12,500
Systemic Safety	SS-080	US 20 - Centerline Rumble Strips	Provide Centerline Rumble Strips on US 20 at appropriate locations between M.P. 2.84 and M.P. 82.39, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State			ODOT Roadway Departure Safety Implementation Plan	ODOT STIP Project 19692, Region 2 Centerline Rumble Strips Unit 3, includes this location and is planned for bid letting in early 2018.	71%	$75,000
Systemic Safety	SS-081	US 20 - Shoulder and Edgeline Rumble Strips	Provide Shoulder and Edgeline Rumble Strips on US 20 at appropriate locations between M.P. 2.84 and M.P. 73.86, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State			ODOT Roadway Departure Safety Implementation Plan		71%	$84,000
Systemic Safety	SS-082	US 20 - Enhanced Signing and Marking for Curves	Provide Enhanced Signing and Marking for Curves on US 20 at appropriate locations between M.P. 25 and M.P. 80.11, per ODOT Roadway Departure Safety Implementation Plan. See appendix list for more details.	State			ODOT Roadway Departure Safety Implementation Plan	ODOT STIP Project 19696, Region 2 Curve Warning Signs Part 3, includes this location and is planned for bid letting in early 2018.	71%	$89,500
Systemic Safety	SS-083	[Project Removed]								
Systemic Safety	SS-084	[Project ID changed to BP-67]								
Systemic Safety	SS-085	US 20 / 9th Ave. (Sweet Home) - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State			ODOT Oregon Intersection Safety Implementation Plan		71%	$3,780
Systemic Safety	SS-086	US 20 / Big Lake Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State			ODOT Oregon Intersection Safety Implementation Plan		71%	$3,780
Systemic Safety	SS-087	US 20 / Bohlken Dr. / Honey Sign Dr. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State			ODOT Oregon Intersection Safety Implementation Plan		71%	$3,780
Systemic Safety	SS-088	US 20 / Clark Mill Rd. (Sweet Home) - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State			ODOT Oregon Intersection Safety Implementation Plan		71%	$3,780
Systemic Safety	SS-089	US 20 / Fairview Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State			ODOT Oregon Intersection Safety Implementation Plan		71%	$3,780
Systemic Safety	SS-090	US 20 / Gore Dr. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State			ODOT Oregon Intersection Safety Implementation Plan		71%	$3,780
Systemic Safety	SS-091	US 20 / Kgal Dr. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State			ODOT Oregon Intersection Safety Implementation Plan		71%	$3,780
Systemic Safety	SS-092	US 20 / Knox Butte Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements, Enhanced Signing Treatments, New or Upgraded Lighting, High Friction Surface	State			ODOT Oregon Intersection Safety Implementation Plan		71%	$36,380
Systemic Safety	SS-093	US 20 / OR 22 / Santiam Junction - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State			ODOT Oregon Intersection Safety Implementation Plan		71%	$3,780
Systemic Safety	SS-094	US 20 / OR 226 - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State			ODOT Oregon Intersection Safety Implementation Plan		71%	$3,780
Systemic Safety	SS-095	US 20 / OR 228 - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Signal and Sign Improvements. Monitor impactand consider additional hotspot treatments if needed.	State			Public Outreach and Input		71%	$9,000
Systemic Safety	SS-096	US 20 / Pleasant Valley Rd. (Sweet Home) - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State			ODOT Oregon Intersection Safety Implementation Plan		71%	$3,780
Systemic Safety	SS-097	US 20 / Sodaville Rd. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State			ODOT Oregon Intersection Safety Implementation Plan		71%	$3,780
Systemic Safety	SS-098	US 20 / Sodaville-Waterloo Dr. / Waterloo Dr. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State			ODOT Oregon Intersection Safety Implementation Plan		71%	$3,780
Systemic Safety	SS-099	US 20 / Spicer Dr. / Tennessee School Dr. - Systemic Intersection Safety Improvements	Provide systemic intersection safety improvements including: Basic Set of Sign and Marking Improvements	State			ODOT Oregon Intersection Safety Implementation Plan		71%	$3,780

Category	Project ID	Project Name	Project Description	Primary Jurisdiction	Secondary Juridictions	Coordinated Projects	Source	Status	Evaluation Score	Cost Estimate
Systemic Safety	SS-100	Wiley Cr Dr. - Systemic Roadway Departure Improvements	Provide systemic roadway departure improvements including: Centerline Rumble Strips, and Signs and Markings	County			ODOT Roadway Departure Safety Implementation Plan		57%	$39,040

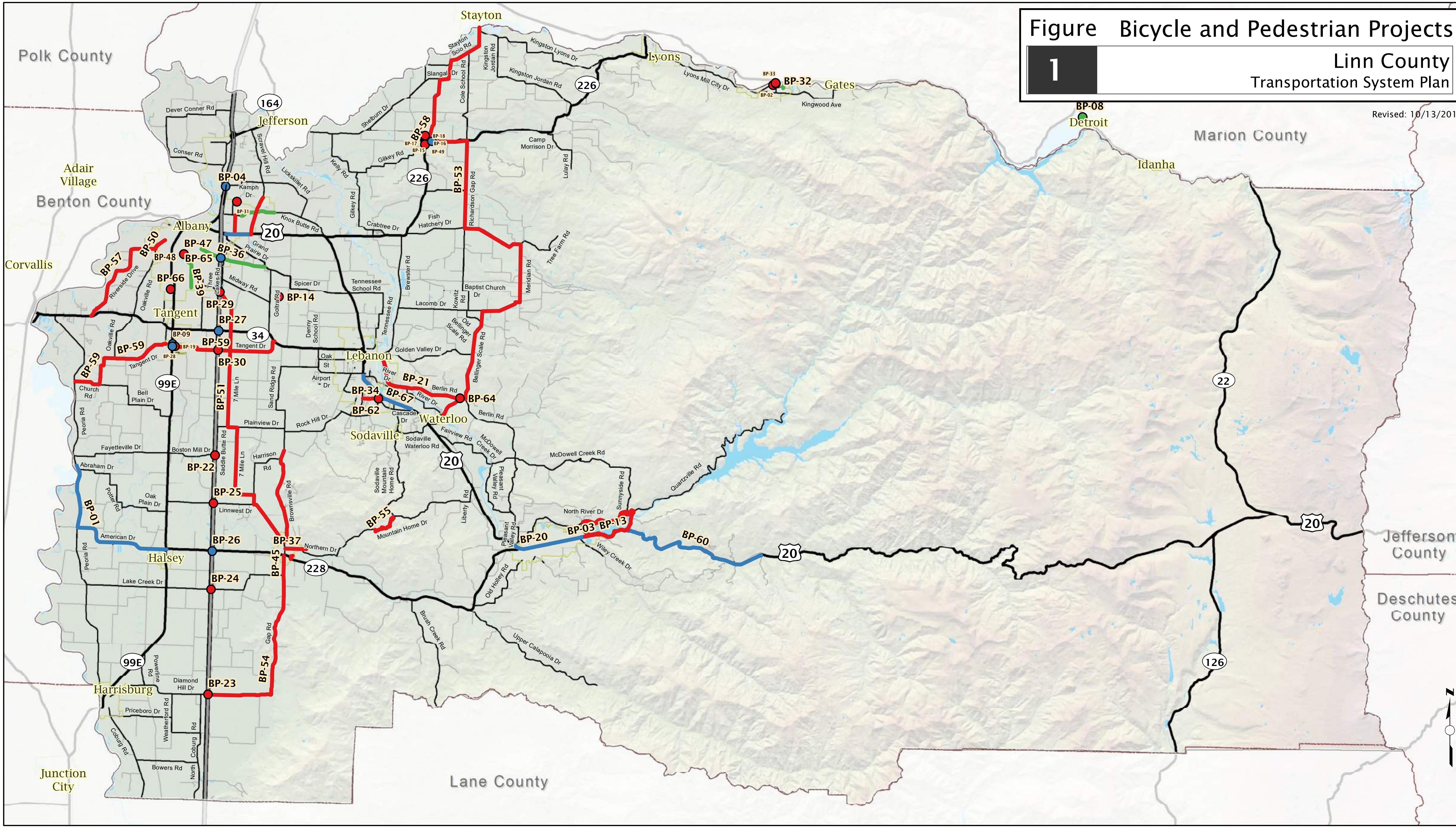
Planned System Project Maps

Linn County
Transportation
System Plan

Figure 1 Bicycle and Pedestrian Projects

Linn County
Transportation System Plan

Revised: 10/13/2017



Legend

Project Primary Jurisdiction

- County
- State
- Other

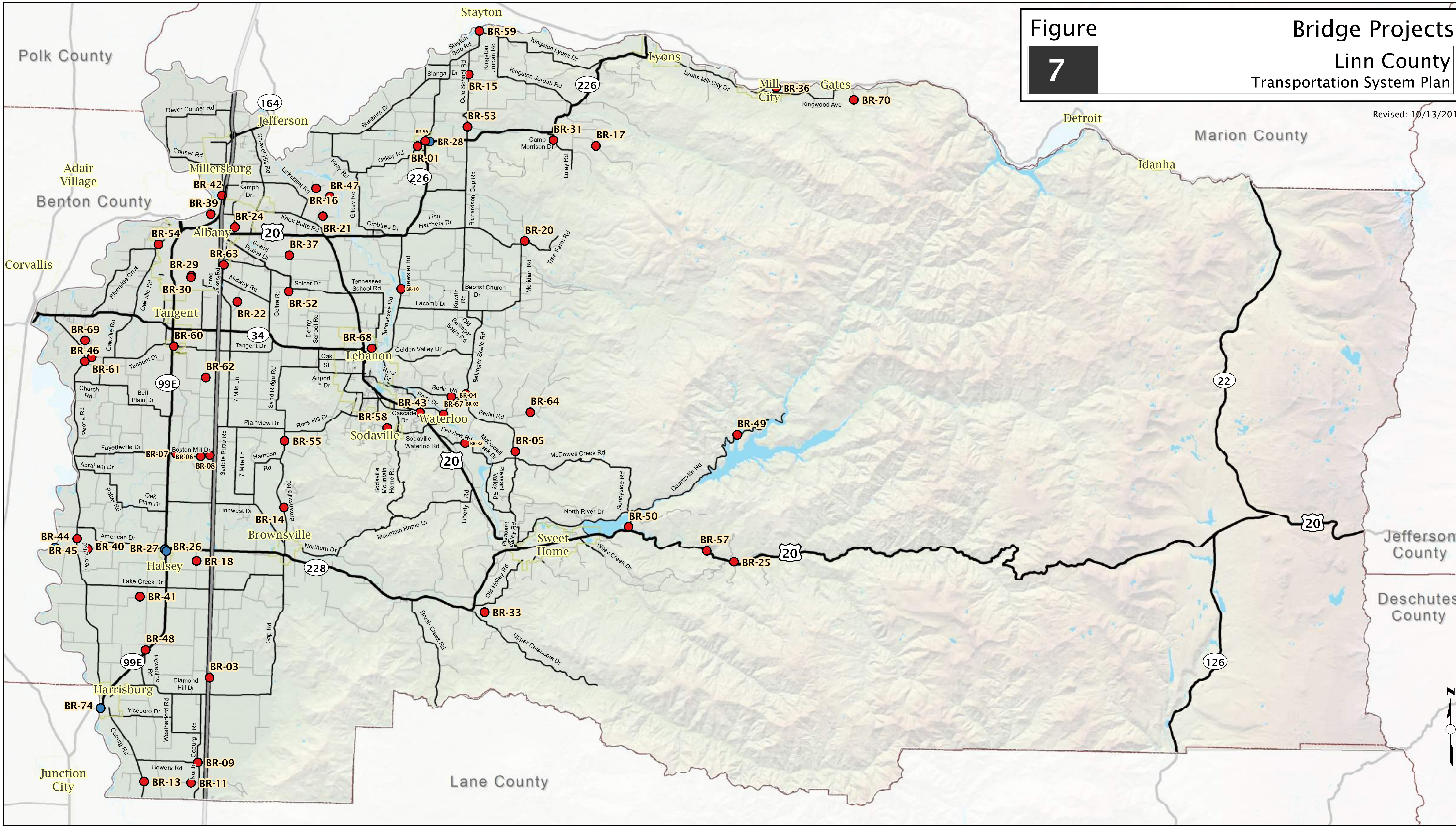
- Interstate
- State Highways
- County Local Roads
- County Local Roads
- Water
- Urban Growth Boundary

Linn County Transportation System Plan

Figure 7 — Bridge Projects

Linn County Transportation System Plan

Revised: 10/13/2017



Legend

Project Primary Jurisdiction

- County
- State
- Other

- Interstate
- State Highways
- County Local Roads
- County Local Roads
- Water
- Urban Growth Boundary

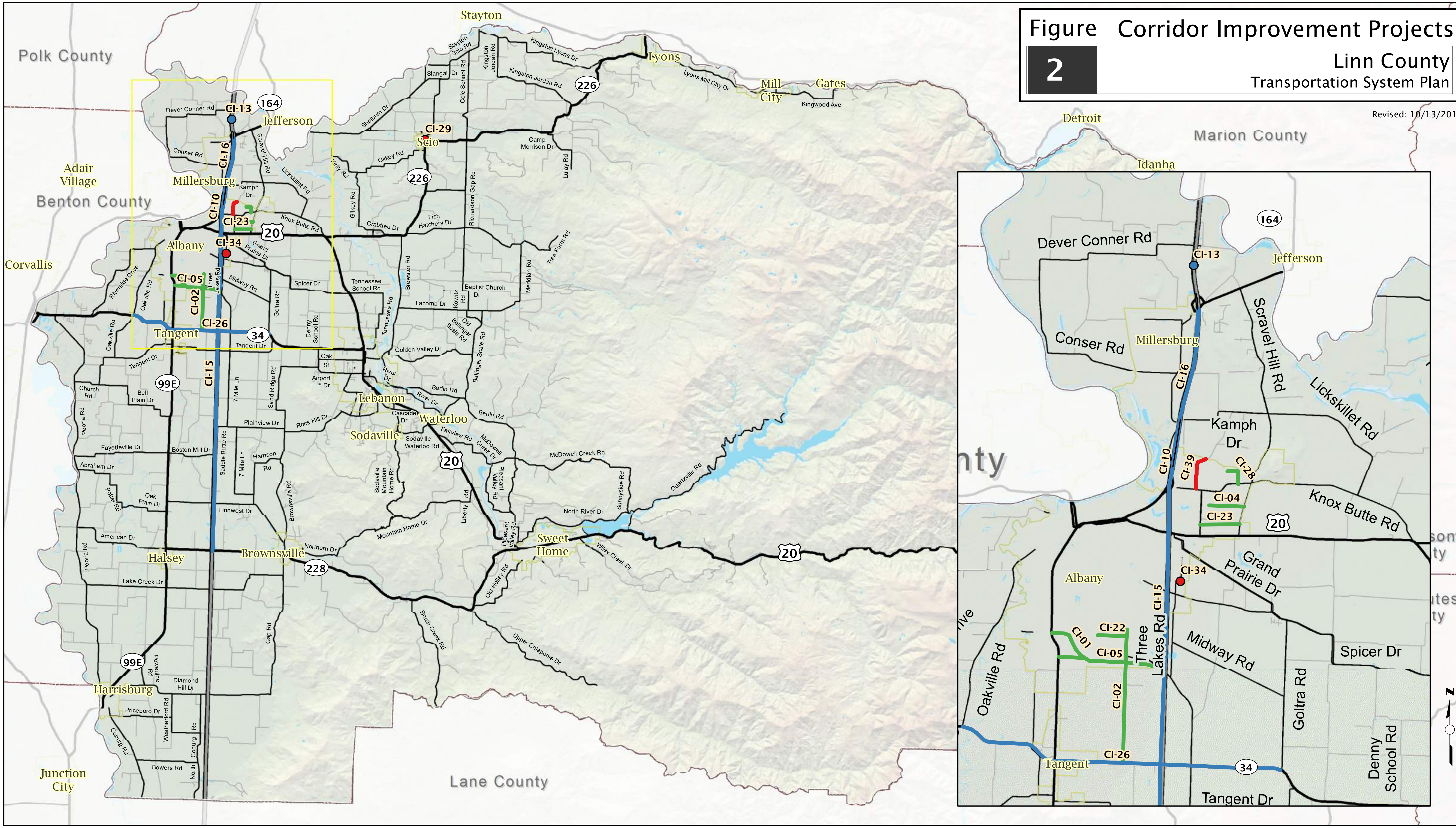
Linn County Transportation System Plan

Figure 2

Corridor Improvement Projects

Linn County
Transportation System Plan

Revised: 10/13/2017



Legend

Project Primary Jurisdiction

- County
- State
- Other

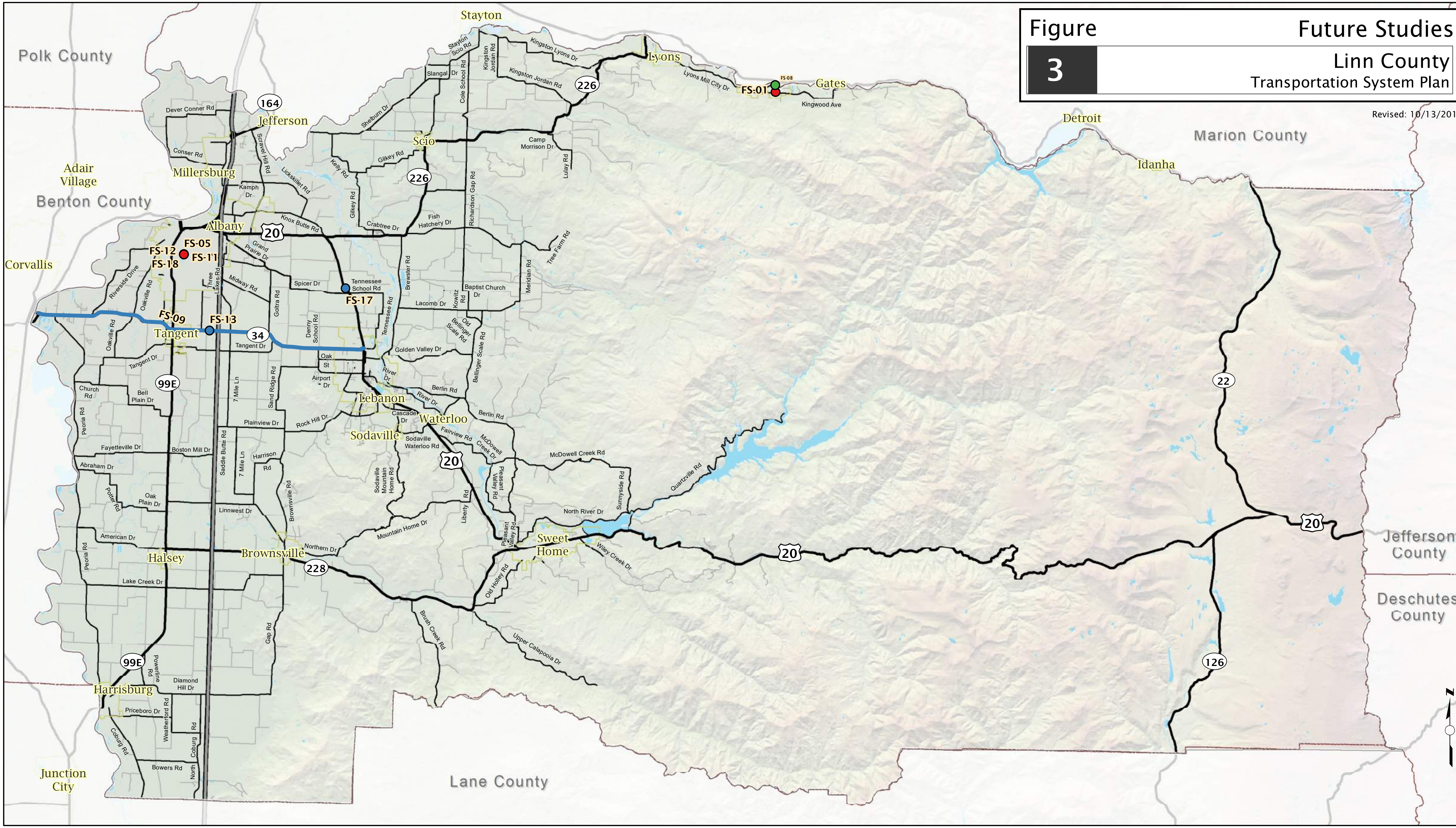
- Interstate
- State Highways
- County Local Roads
- County Local Roads
- Water
- Urban Growth Boundary

Linn County Transportation System Plan

Figure 3 Future Studies

Linn County Transportation System Plan

Revised: 10/13/2017



Legend

Project Primary Jurisdiction

- County
- State
- Other

- Interstate
- State Highways
- County Local Roads
- County Local Roads

- Water
- Urban Growth Boundary

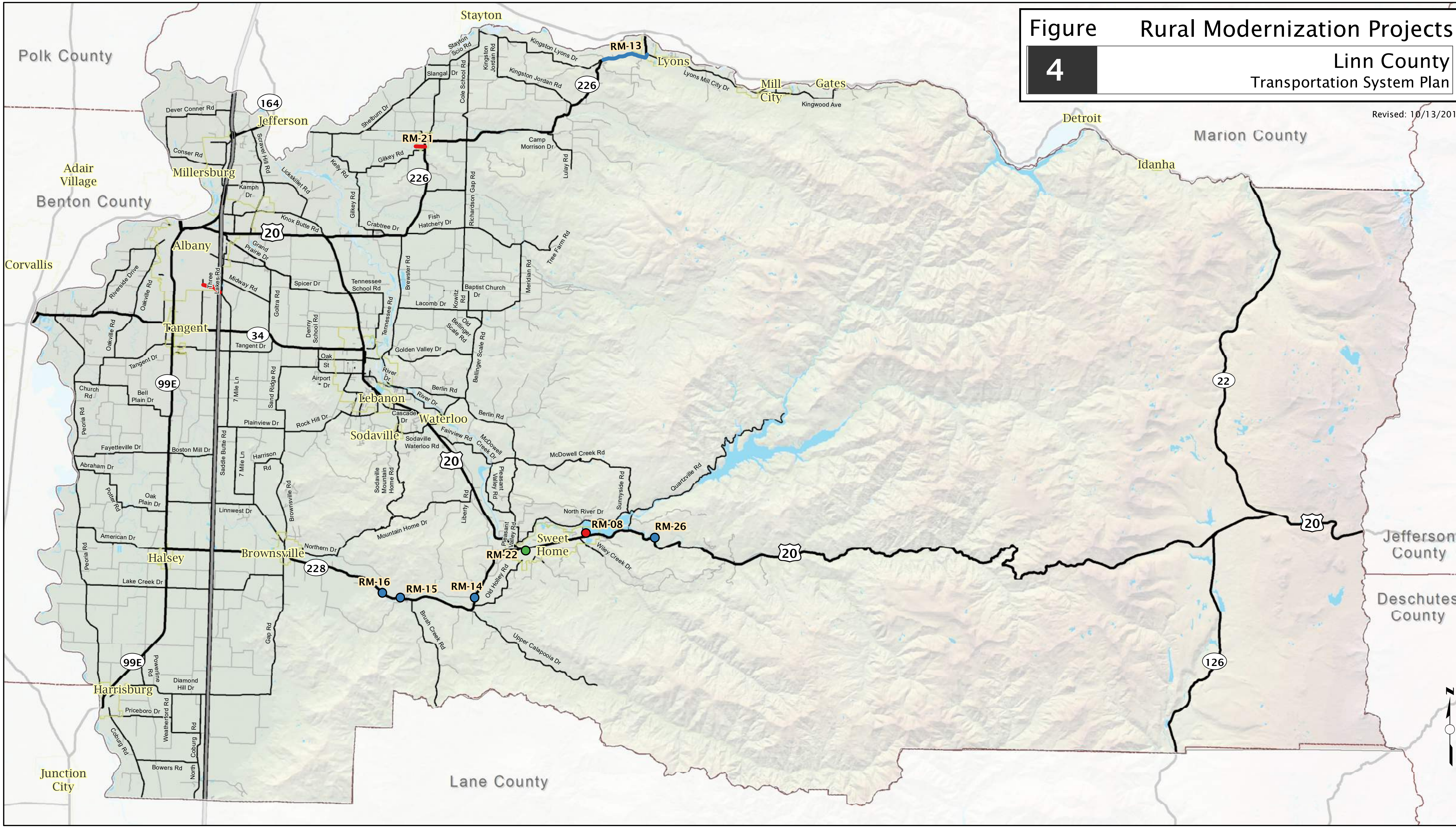
Linn County Transportation System Plan

Figure 4

Rural Modernization Projects

Linn County
Transportation System Plan

Revised: 10/13/2017



Legend

Project Primary Jurisdiction

- County
- State
- Other

- Interstate
- State Highways
- County Local Roads
- County Local Roads

- Water
- Urban Growth Boundary

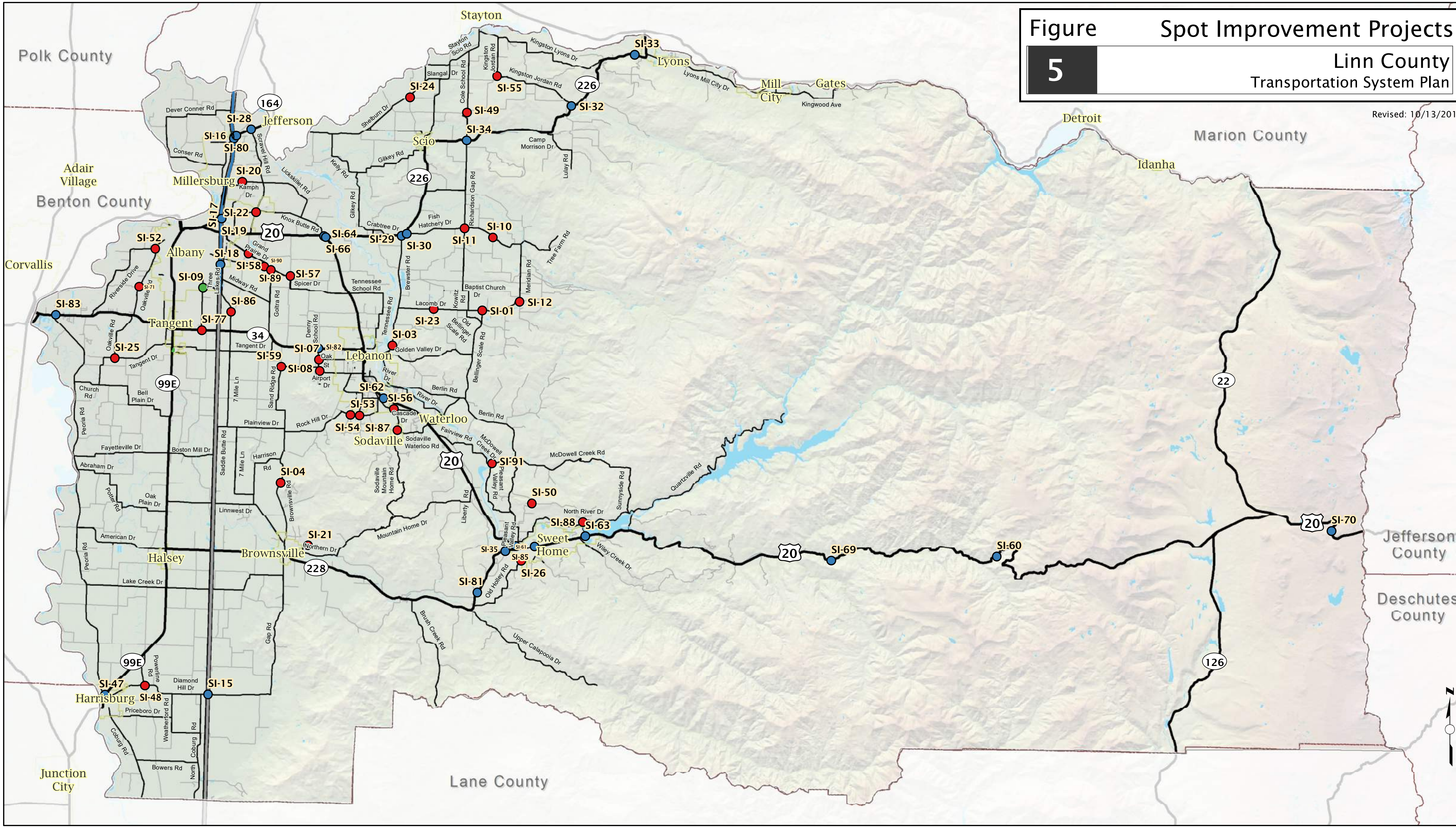
Linn County Transportation System Plan

Figure 5

Spot Improvement Projects

Linn County Transportation System Plan

Revised: 10/13/2017



Legend

Project Primary Jurisdiction

- County
- State
- Other

- Interstate
- State Highways
- County Local Roads
- County Local Roads

- Water
- Urban Growth Boundary

Linn County Transportation System Plan

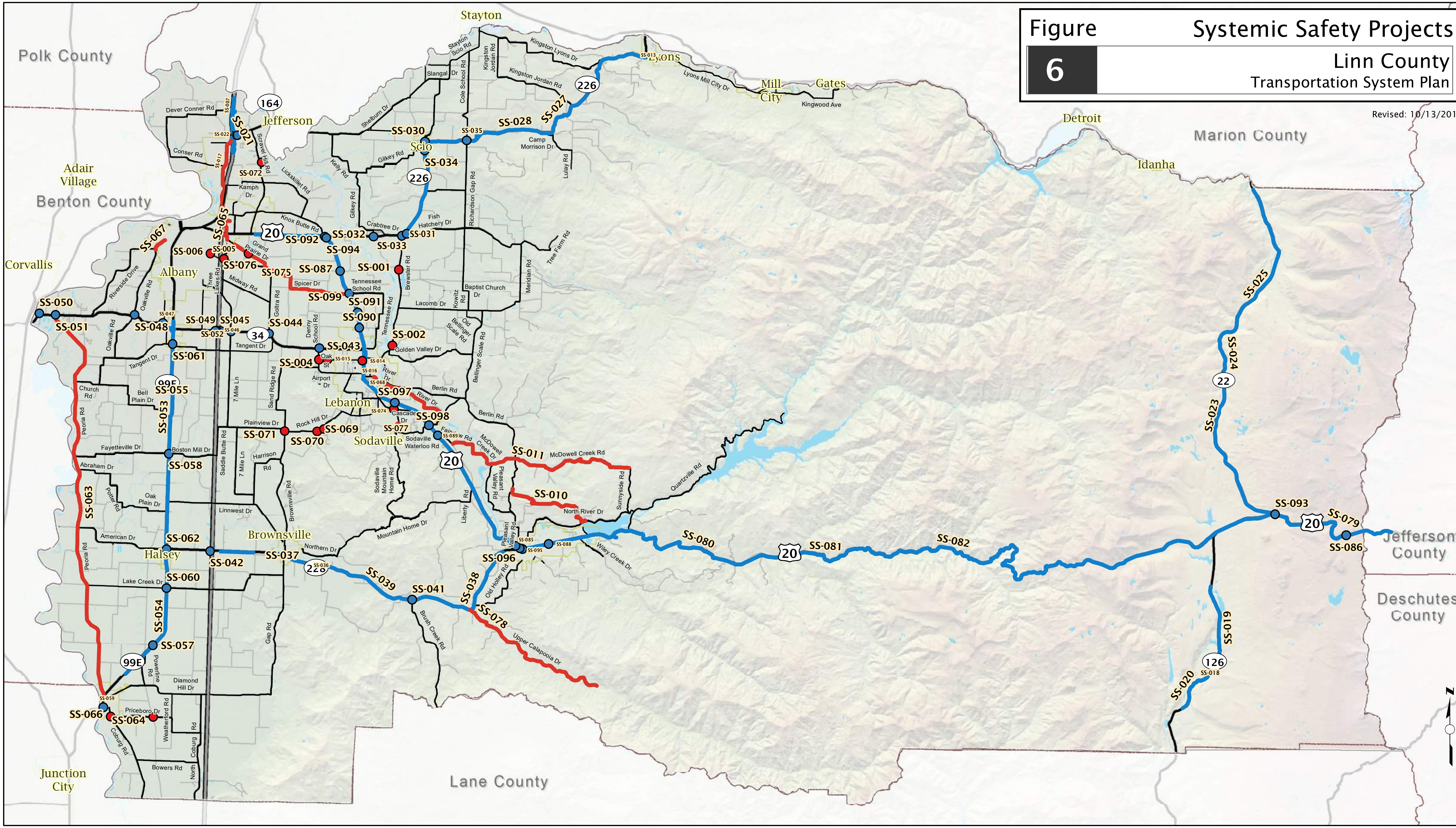


Figure 6

Systemic Safety Projects

Linn County
Transportation System Plan

Legend

Project Primary Jurisdiction

- County
- State
- Other

- Interstate
- State Highways
- County Local Roads
- County Local Roads

- Water
- Urban Growth Boundary

Linn County Transportation System Plan

Mobility Improvement Worksheets

Linn County
Transportation
System Plan

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	2375	465	55	1610	10	270	5	75	10	5	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91		0.91	0.91			1.00	
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00		1.00	0.98			0.97	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.90			0.90	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.99			0.99	
Satd. Flow (prot)	1671	4988	1533	3400	4890		3189	1400			1648	
Flt Permitted	0.11	1.00	1.00	0.05	1.00		0.95	0.99			0.91	
Satd. Flow (perm)	188	4988	1533	191	4890		3189	1400			1519	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	16	2500	489	58	1695	11	284	5	79	11	5	42
RTOR Reduction (vph)	0	0	149	0	0	0	0	67	0	0	34	0
Lane Group Flow (vph)	16	2500	340	58	1706	0	253	48	0	0	24	0
Confl. Peds. (#/hr)	1					1			6	6		
Confl. Bikes (#/hr)			2			1			2			8
Heavy Vehicles (%)	8%	4%	4%	3%	6%	0%	3%	100%	3%	0%	0%	0%
Turn Type	Perm	NA	Perm	Perm	NA		Split	NA		Perm	NA	
Protected Phases		4			8		2	2			6	
Permitted Phases	4		4	8						6		
Actuated Green, G (s)	75.1	75.1	75.1	75.1	75.1		13.6	13.6			7.4	
Effective Green, g (s)	75.1	75.1	75.1	75.1	75.1		13.6	13.6			7.4	
Actuated g/C Ratio	0.69	0.69	0.69	0.69	0.69		0.13	0.13			0.07	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	130	3465	1065	132	3397		401	176			103	
v/s Ratio Prot		c0.50			0.35		c0.08	0.03				
v/s Ratio Perm	0.09		0.22	0.30							c0.02	
v/c Ratio	0.12	0.72	0.32	0.44	0.50		0.63	0.27			0.24	
Uniform Delay, d1	5.5	10.1	6.5	7.3	7.7		44.9	42.8			47.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.4	0.8	0.2	2.3	0.1		3.2	0.8			1.2	
Delay (s)	5.9	10.9	6.6	9.6	7.9		48.1	43.6			48.9	
Level of Service	A	B	A	A	A		D	D			D	
Approach Delay (s)		10.1			7.9			46.7			48.9	
Approach LOS		B			A			D			D	

Intersection Summary			
HCM 2000 Control Delay	12.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	108.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	66.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	695	45	100	420	20	25	10	120	15	10	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	280	-	270	150	-	-	-	-	200	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	2	0	3	4	0	7	11	6	0	0	0
Mvmt Flow	6	772	50	111	467	22	28	11	133	17	11	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	489	0	0	772	0	0	1489	1494	772	1489	1483	478
Stage 1	-	-	-	-	-	-	783	783	-	700	700	-
Stage 2	-	-	-	-	-	-	706	711	-	789	783	-
Critical Hdwy	4.1	-	-	4.13	-	-	7.17	6.61	6.26	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.17	5.61	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.17	5.61	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.227	-	-	3.563	4.099	3.354	3.5	4	3.3
Pot Cap-1 Maneuver	1085	-	-	839	-	-	100	118	393	103	126	591
Stage 1	-	-	-	-	-	-	379	392	-	433	444	-
Stage 2	-	-	-	-	-	-	419	423	-	387	407	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1085	-	-	839	-	-	83	102	393	56	109	591
Mov Cap-2 Maneuver	-	-	-	-	-	-	83	102	-	56	109	-
Stage 1	-	-	-	-	-	-	377	390	-	431	385	-
Stage 2	-	-	-	-	-	-	353	367	-	247	405	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.8	31.5	86.9
HCM LOS			D	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	88	393	1085	-	-	839	-	-	70
HCM Lane V/C Ratio	0.442	0.339	0.005	-	-	0.132	-	-	0.397
HCM Control Delay (s)	74.9	18.8	8.3	-	-	9.9	-	-	86.9
HCM Lane LOS	F	C	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	1.8	1.5	0	-	-	0.5	-	-	1.5

Transportation Planning Analysis Unit Single Lane Roundabout Calculator 10/14/15

General Information	
Analyst:	BLC
Agency:	DKS
Date:	7/24/2017
East leg:	US 20
South leg	Knox Butte Rd. (North Leg)
Project:	Linn County TSP Improvements
Year:	20yrs > build

Passenger Car Equivalents			Rec
bicycle	E_b	1	1
medium	E_m	1.5	1.5
heavy	E_h	2	2

Roundabout Input			
3 or 4 legs			3
Portion of an hour:			0.25
Peak hr	4	30	PM

N
W E
S

Pedestrian crossings per le	N	E	S	W
#	0	0	0	0

Hour Volumes vph	Approaches N	E	S	W
Exits N	0	230	0	20
Exits E	280	0	0	515
Exits S	0	0	0	0
Exits W	20	385	0	0

Changes here do not go to Input tab.

Flow Rate v_i	Approaches N	E	S	W
Exits N	0	235	0	20
Exits E	286	0	0	526
Exits S	0	0	0	0
Exits W	20	393	0	0

Peak Hour Factor PHF	Approaches N	E	S	W
Exits N	0.98	0.98	0.98	0.98
Exits E	0.98	0.98	0.98	0.98
Exits S	0.98	0.98	0.98	0.98
Exits W	0.98	0.98	0.98	0.98

Vehicle Factor f_{hv}	Approaches N	E	S	W
Exits N	1.000	0.971	1.000	0.909
Exits E	0.972	1.000	1.000	0.961
Exits S	1.000	1.000	1.000	1.000
Exits W	1.000	0.935	1.000	1.000

# of Bicycles vph	Approaches N	E	S	W
Exits N	0	0	0	0
Exits E	0	0	0	0
Exits S	0	0	0	0
Exits W	0	0	0	0

Proportion of Bicycle P_b	Approaches N	E	S	W
Exits N	0.000	0.000	0.000	0.000
Exits E	0.000	0.000	0.000	0.000
Exits S	0.000	0.000	0.000	0.000
Exits W	0.000	0.000	0.000	0.000

# of Medium Trucks vph	Approaches N	E	S	W
Exits N	0	0	0	0
Exits E	0	0	0	0
Exits S	0	0	0	0
Exits W	0	0	0	0

Proportion of Medium P_m	Approaches N	E	S	W
Exits N	0.000	0.000	0.000	0.000
Exits E	0.000	0.000	0.000	0.000
Exits S	0.000	0.000	0.000	0.000
Exits W	0.000	0.000	0.000	0.000

# of Heavy Trucks vph	Approaches N	E	S	W
Exits N	0	7	0	2
Exits E	8	0	0	21
Exits S	0	0	0	0
Exits W	0	27	0	0

Proportion of Heavy P_h	Approaches N	E	S	W
Exits N	0.000	0.030	0.000	0.100
Exits E	0.029	0.000	0.000	0.041
Exits S	0.000	0.000	0.000	0.000
Exits W	0.000	0.070	0.000	0.000

Adjusted Flow Rate v_i	Approaches N	E	S	W
Exits N	0	242	0	22
Exits E	294	0	0	547
Exits S	0	0	0	0
Exits W	20	420	0	0
Entry Flow Rate (pc/h)	314	662	0	569
Conflict Flow (pc/h)	420	22	863	294

Exits w/o right vol pch		Weighted Entry Vehicle Factors			
N	22	0.974	0.948	#DIV/0!	0.959
E	841				
S	0	Weighted Conflict Vehicle Factors			
W	420	0.934	0.909	0.963	0.972

Output		Approaches N	E	S	W
Conflict flow (veh/h)	v_c	392	20	831	286
Entry flow (veh/h)	v_i	306	628	#DIV/0!	546
Entry capacity (veh/h)	c_i	723	1048	#DIV/0!	808
Pedestrian impedance	f_{ped}	1	1	1	1
Leg v/c ratio	x_i	0.42	0.60	#DIV/0!	0.68
Control delay (sec/veh)	d_i	10.6	11.4	#DIV/0!	16.8
LOS	n/a	B	B	#DIV/0!	C
HCM 95th% Queue (veh)	Q_m	2	4	#DIV/0!	5

Int cntrl delay (sec/veh)	d_{int}	13.23
Intersection LOS	n/a	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	20	515	385	230	280	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1671	1827	1776	1568	1752	1615
Flt Permitted	0.51	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	890	1827	1776	1568	1752	1615
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	20	526	393	235	286	20
RTOR Reduction (vph)	0	0	0	37	0	15
Lane Group Flow (vph)	20	526	393	198	286	5
Heavy Vehicles (%)	8%	4%	7%	3%	3%	0%
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Actuated Green, G (s)	18.4	18.4	18.4	18.4	9.3	9.3
Effective Green, g (s)	18.4	18.4	18.4	18.4	9.3	9.3
Actuated g/C Ratio	0.52	0.52	0.52	0.52	0.26	0.26
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	458	941	915	808	456	420
v/s Ratio Prot		c0.29	0.22		c0.16	
v/s Ratio Perm	0.02			0.13		0.00
v/c Ratio	0.04	0.56	0.43	0.24	0.63	0.01
Uniform Delay, d1	4.3	5.9	5.4	4.8	11.7	9.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.0	0.7	0.3	0.2	2.7	0.0
Delay (s)	4.3	6.6	5.7	5.0	14.4	9.8
Level of Service	A	A	A	A	B	A
Approach Delay (s)		6.5	5.4		14.1	
Approach LOS		A	A		B	

Intersection Summary			
HCM 2000 Control Delay	7.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	35.7	Sum of lost time (s)	8.0
Intersection Capacity Utilization	49.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	6.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	30	195	425	35	385	430
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	Yield	-	None
Storage Length	150	0	-	100	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	9	6	6	9	4	4
Mvmt Flow	31	203	443	36	401	448

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1693	443	0	0	443	0
Stage 1	443	-	-	-	-	-
Stage 2	1250	-	-	-	-	-
Critical Hdwy	6.49	6.26	-	-	4.14	-
Critical Hdwy Stg 1	5.49	-	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-	-
Follow-up Hdwy	3.581	3.354	-	-	2.236	-
Pot Cap-1 Maneuver	98	606	-	-	1107	-
Stage 1	633	-	-	-	-	-
Stage 2	261	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	63	606	-	-	1107	-
Mov Cap-2 Maneuver	63	-	-	-	-	-
Stage 1	633	-	-	-	-	-
Stage 2	166	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	26.6	0	4.8
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	63	606	1107	-
HCM Lane V/C Ratio	-	-	0.496	0.335	0.362	-
HCM Control Delay (s)	-	-	108.8	13.9	10.1	-
HCM Lane LOS	-	-	F	B	B	-
HCM 95th %tile Q(veh)	-	-	2	1.5	1.7	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	5	0	5	5	130	0	345	30	165	735	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	50	-	-	-	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	33	13	0	7	0	5	2	0
Mvmt Flow	6	6	0	6	6	148	0	392	34	188	835	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1625	1639	838	1625	1625	-	841	0	0	426	0	0
Stage 1	1213	1213	-	409	409	-	-	-	-	-	-	-
Stage 2	412	426	-	1216	1216	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.83	-	4.1	-	-	4.15	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.83	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.83	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4.297	-	2.2	-	-	2.245	-	-
Pot Cap-1 Maneuver	83	101	369	83	87	0	803	-	-	1117	-	-
Stage 1	224	257	-	623	546	0	-	-	-	-	-	-
Stage 2	621	589	-	223	222	0	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	70	84	369	70	72	-	803	-	-	1117	-	-
Mov Cap-2 Maneuver	162	161	-	148	149	-	-	-	-	-	-	-
Stage 1	224	214	-	623	546	-	-	-	-	-	-	-
Stage 2	615	589	-	181	185	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	29.1	31.3	0	1.6
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	803	-	-	161	148	-	1117	-	-
HCM Lane V/C Ratio	-	-	-	0.071	0.077	-	0.168	-	-
HCM Control Delay (s)	0	-	-	29.1	31.3	0	8.9	-	-
HCM Lane LOS	A	-	-	D	D	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.2	-	0.6	-	-

General Information		Passenger Car Equivalents			Rec
Analyst:	BLC	bicycle	E_b	1	1
Agency:	DKS	medium	E_m	1.5	1.5
Date:	7/24/2017	heavy	E_h	2	2
East leg:	OR 34	South leg:	Denny School Rd.		
Project:	Linn County TSP Improvements		Year:	20yrs > build	

Roundabout Input			
3 or 4 legs		3	
Portion of an hour:		0.25	
Peak hr	4	30	PM

N / W / E / S

Pedestrian crossings per l	N	E	S	W
#	0	0	0	0

ONE BYPASS

Hour Volumes vph		Approaches N	E	S	W
Exits	N	0	0	0	0
	E	0	0	5	455
	S	0	15	0	0
	W	0	0	475	0

Peak Hour Factor PHF		Approaches N	E	S	W
Exits	N	0.00	0.95	0.95	0.95
	E	0.00	0.95	0.95	0.95
	S	0.00	0.95	0.95	0.00
	W	0.00	0.95	0.95	0.95

# of Bicycles vph		Approaches N	E	S	W
Exits	N	0	0	0	0
	E	0	0	0	0
	S	0	0	0	0
	W	0	0	0	0

# of Medium Trucks vph		Approaches N	E	S	W
Exits	N	0	0	0	0
	E	0	0	0	0
	S	0	0	0	0
	W	0	0	0	0

# of Heavy Trucks vph		Approaches N	E	S	W
Exits	N	0	0	0	0
	E	0	0	5	18
	S	0	1	0	0
	W	0	0	38	0

Adjusted Flow Rate v_i		Approaches N	E	S	W
Exits	N	0	0	0	0
	E	0	0	10	498
	S	0	17	0	0
	W	0	0	540	0
Entry Flow Rate (pc/h)		0	17	550	498
Conflict Flow (pc/h)		557	540	498	17
Bypass Delay		0.0	0.0	0.0	2.8
Weighted Entry Veh Factor		#DIV/0!	0.938	0.918	0.962
1st Bypass Entry Flov		0	0	0	947
Weighted Conflict Factors		0.926	0.926	0.962	0.938

Flow Rate v_i		Approaches N	E	S	W
Exits	N	0	0	0	0
	E	0	0	5	479
	S	0	16	0	0
	W	0	0	500	0

Vehicle Factor f_{hv}		Approaches N	E	S	W
Exits	N	1.000	1.000	1.000	1.000
	E	1.000	1.000	0.500	0.962
	S	1.000	0.937	1.000	1.000
	W	1.000	1.000	0.926	1.000

Proportion of Bicycle P_b		Approaches N	E	S	W
Exits	N	0.000	0.000	0.000	0.000
	E	0.000	0.000	0.000	0.000
	S	0.000	0.000	0.000	0.000
	W	0.000	0.000	0.000	0.000

Proportion of Medium P_m		Approaches N	E	S	W
Exits	N	0.000	0.000	0.000	0.000
	E	0.000	0.000	0.000	0.000
	S	0.000	0.000	0.000	0.000
	W	0.000	0.000	0.000	0.000

Proportion of Heavy P_h		Approaches N	E	S	W
Exits	N	0.000	0.000	0.000	0.000
	E	0.000	0.000	1.000	0.040
	S	0.000	0.067	0.000	0.000
	W	0.000	0.000	0.080	0.000

Output		Approaches N	E	S	W
Conflict flow (veh/h)	v_c	516	500	479	16
Entry flow (veh/h)	v_i	#DIV/0!	16	505	479
Entry capacity (veh/h)	c_i	#DIV/0!	618	630	1069
Pedestrian impedance	f_{ped}	1	1	1	1
Leg v/c ratio	x_i	#DIV/0!	0.03	0.80	0.45
Control delay (sec/veh)	d_i	#DIV/0!	6.2	28.6	8.3
LOS	n/a	#DIV/0!	A	D	A
HCM 95th% Queue (veh)	Q_m	#DIV/0!	0	8	2

Int cntrl delay (sec/veh)	d_{int}	13.55
Intersection LOS	n/a	B

Evaluation Criteria

Table A2: Evaluation Criteria - Measures of Effectiveness and Score Definitions

Measure of Effectiveness		Project Evaluation Score
Goal 1: Mobility - Provide for efficient motor vehicle travel to and through the county.		
Street Connectivity	1	Improves system efficiency
	0	No change
Alternative Local Routes	1	Reduces reliance on state highways for shorter local trips
	0	No change
Daily Traffic Capacity	1	Optimizes daily traffic capacity
	0	No change
Goal 2: Active Transportation - Increase the convenience and availability of pedestrian and bicycle modes.		
Pedestrian and Bicycle Improvements	1	Improves pedestrian or bicycle connectivity or accessibility
	0	No change
Connections to Community Destinations	1	Enhances pedestrian or bicycle access to community destinations such as schools, parks, and social services.
	0	No change
Facility Amenities or Furnishings	1	Improves user experience and comfort to encourage higher levels of walking and biking trips (e.g., provide benches, planter strips, lighting, wayfinding)
	0	No change
Health	1	Encourages active living and physical activity
	0	No change
Goal 3: Transit - Provide transit service and amenities that encourage a higher level of ridership.		
Transit Access	1	Improves access to transit facilities, promoting transit as a viable alternative to the single occupant vehicle.
	0	No change
Transit Amenities or Facilities	1	Provides amenities or facilities to improve user experience and comfort to encourage higher levels of transit ridership (e.g., provide benches, shelters, lighting, schedules)
	0	No change
Goal 4: Access for All - Provide an equitable, balanced and connected multi-modal transportation system.		
Multiple Travel Modes	1	Connection or improvement serves a variety of travel modes.
	0	Serves single travel mode
Connected System	1	Improves access to all areas of the county
	0	No change

Accommodate all Ages	1	Connection or improvement benefits residents of all ages and supports travel independence in the county
	0	No change
Goal 5: Heath and Safety - Enhance the health and safety of residents.		
Safety	1	Improves public safety (e.g., visibility of transportation users in constrained areas, street lighting, emergency vehicle access)
	0	No change
Emergency Routes	1	Enhances awareness or reliability of Hazardous Materials and Seismic Lifeline Routes
	0	No change
Goal 6: Sustainability - Foster a sustainable transportation system.		
Environment	1	Minimizes impact to the natural environment.
	0	No change
Improved Roadway Efficiency	1	Implements Transportation Demand Management (TDM) and Transportation System Management (TSM) or other strategies to create greater mobility, reduce auto trips, make more efficient use of the roadway system, and minimize air pollution.
	0	No change
Goal 7: Economy - Ensure the transportation system supports a prosperous and competitive economy.		
Freight	1	Improves freight access/connectivity and accommodates deliveries.
	0	No change
Employment	1	Enhances travel access, comfort, or convenience to employment in the county.
	0	No change
Goal 8: Coordination - Coordinate with local and state agencies and transportation plans.		
Coordination		No evaluation criteria for Goal 8, this is required for all solutions.

Unit Cost Assumptions

Table A3: Unit Cost Assumptions for Cost Estimates

Roadway Elements		
Road - new/reconstruct (incl. curb, sidewalk, drainage)	SF	$15
Road - new/reconstruct with median (incl. curb, sidewalk, drainage)	SF	$22
Road - resurface	SF	$4
Curb and Gutter	LF	$21
Sidewalk	SF	$10
Curb Extension or Modification	EA	$13,000
Shared-Use Paths	SF	$9
Minor Widening, no curbs	SF	$10
Modify Driveway	EA	$2,000
Retaining Wall (by length)	LF	$250
Bridge (new or replace)	SF	$250
Utility and Drainage		
Utility Relocation	LF	$55
Utility Burial	LF	$150
Drainage System Installed	LF	$115
Right-of-Way Development		
Landscaping only - medians and bulbouts	LF	$4
Traffic Elements		
Traffic Signal (Installation)	EA	$250,000
Traffic signals (less than 4-lanes)	EA	$150,000
Traffic Signal (Modification per pole)	EA	$50,000
Roundabout - Unconstrained/Small	EA	$1,000,000
Roundabout - Constrained/Large	EA	$2,225,000
Signing/Striping	LF	$2
Street Lighting - per side	LF	$120
Install/Upgrade Warning Device at Railroad Crossing	EA	$200,000
Land Acquisition Costs		
Estimate square-feet of high-value ROW taking	SF	$30
Estimate square-feet of developed ROW taking	SF	$15
Estimate square-feet of undeveloped ROW taking	SF	$10

Table A3: Systemic Safety Unit Cost Assumptions for Cost Estimates

Systemic Safety Costs		
Bike Stencil / Sharrow	EA	$700
Enhanced Signs and Markings for Curves - State Rural or Urban (per curve)	EA	$5,000
Enhanced Signs and Markings for Curves plus Flashing Beacons - State Rural (per curve)	EA	$7,000
Enhanced Signs and Markings for Curves - Local Road (per road)	EA	$10,000
Rumble Strips (state rural) (both sides)	LF	$1
Rumble Strips (local road) (per road)	EA	$5,0000
Enhanced Delineation	LF	$1.67
Tree Removal	LF	$8.33
Traffic Calming (State Rural)	LF	$0.93
Traffic Calming (State Urban)	LF	$2.78
Traffic Calming (Local Road)	EA	$25,000
Road Diet (Four to Three Lane Conversion)	LF	$16.67
Widen Shouders (<= 4 ft, State Rural)	LF	$100
Basic Set of Sign and Marking Improvements (Stop Controlled)	EA	$6,000
Enhanced Signing Treatments (Stop Controlled)	EA	$20,000
Basic Set of Signal and Sign Improvements (Signalized)	EA	$8,000
Permitted and Protected to Protected Only or FYA	EA	$8,000
Enforcement-Assisted Lights for Red Light Running Enforcement	EA	$1,000
New or Upgrade Lighting	EA	$15,000
High Friction Surface Treatment	EA	$25,000
Ped Improvements (stop controlled)	EA	$30,000
Ped Improvements (signalized)	EA	$10,000
Roundabout	EA	$400,000
High Visibility Crosswalks	EA	$1,000
RRFB / Active Flashers	EA	$15,000
Median Refuge	EA	$30,000
Curb Bulbouts	EA	$20,000

Additional Program Project Lists

Flood Closure & High Water List
Slide Area List
Weight Restricted Bridges List
Geometrically Restricted Roads List
Fish Passage Barrier Improvements List
ODOT Roadway Departure Safety Implementation Plan –State Highway Locations.

Flood Closures and High Water List

List ID	Project Name	Project Description	Need Statement
1	Albany-CR.1 Riverside Dr	High water, MP. 6.53	Evaluate road for eliminating flooding
2	Albany-CR.2 Peoria Rd	High water, MP.19.1	Evaluate road for eliminating flooding
3	Albany-CR.2 Peoria Rd	High water, MP. 19.52	Evaluate road for eliminating flooding
4	Albany-CR.113 Hinck Rd	High water, MP. 0.01	Evaluate road for eliminating flooding
5	Albany-CR.122 North Lake Creek Dr	High water, MP. 0.39	Evaluate road for eliminating flooding
6	Albany-CR.122 Tangent Dr	High water, MP. 1.23	Evaluate road for eliminating flooding
7	Albany-CR.122 Tangent Dr	High water, MP. 1.54	Evaluate road for eliminating flooding
8	Albany-CR.122 Tangent Dr	High water, MP. 2.04	Evaluate road for eliminating flooding
9	Albany-CR.122 Tangent Dr	High water, MP.2.72	Evaluate road for eliminating flooding
10	Albany-CR.126 McClagan Rd	High water, MP. 0.02	Evaluate road for eliminating flooding
11	Albany-CR.126 McClagan Rd	High water, MP. 0.89	Evaluate road for eliminating flooding
12	Albany-CR.302 Cooper Dr	High water, MP. 0.008	Evaluate road for eliminating flooding
13	Albany-CR.302 Cooper Dr	High water, MP. 3.248	Evaluate road for eliminating flooding
14	Albany-CR.303 Harnisch Rd	High water, MP. 0.012	Evaluate road for eliminating flooding
15	Albany-CR.312 Black Dog Rd	High water, MP. 0.009	Evaluate road for eliminating flooding
16	Albany-CR.342 Red Bridge Rd	High water, MP. 0.96	Evaluate road for eliminating flooding
17	Albany-CR.405 Glaser Dr	High water, MP. 0.01	Evaluate road for eliminating flooding
18	Albany-CR.405 Glaser Dr	High water, MP. 1.49	Evaluate road for eliminating flooding
19	Albany-CR.408 Steckly Rd	High water, MP. 0.009	Evaluate road for eliminating flooding
20	Albany-CR.408 Steckly Rd	High water, MP. 1.075	Evaluate road for eliminating flooding
21	Albany-CR.416 Parker Rd	High water, MP. 2.12	Evaluate road for eliminating flooding
22	Albany-CR.416 Parker Rd	High water, MP. 2.12	Evaluate road for eliminating flooding
23	Albany-CR.418 Driver Rd	High water, MP. 0.03	Evaluate road for eliminating flooding
24	Albany-CR.418 Driver Rd	High water, MP. 0.64	Evaluate road for eliminating flooding
25	Albany-CR.418 Driver Rd	High water, MP. 3.49	Evaluate road for eliminating flooding
26	Albany-CR.419 Bell Plain Dr	High water, MP. 0.003	Evaluate road for eliminating flooding
27	Halsey-CR.11 Seven Mile Ln	High water, MP. 7.548	Evaluate road for eliminating flooding
28	Halsey-CR.11 Seven Mile Ln	High water, MP. 9.549	Evaluate road for eliminating flooding
29	Halsey-CR.11 Seven Mile Ln	High water, MP. 10.234	Evaluate road for eliminating flooding
30	Halsey-CR.13 Boston Mill Dr	High water, MP. 5.128	Evaluate road for eliminating flooding
31	Halsey-CR.13 Boston Mill Dr	High water, MP. 6.397	Evaluate road for eliminating flooding
32	Halsey-CR.13 Boston Mill Dr	High water, MP. 6.969	Evaluate road for eliminating flooding
33	Halsey-CR.13 Boston Mill Dr	High water, MP. 7.285	Evaluate road for eliminating flooding
34	Halsey-CR.13 Boston Mill Dr	High water, MP. 7.511	Evaluate road for eliminating flooding
35	Halsey-CR.13 Boston Mill Dr	High water, MP. 7.768	Evaluate road for eliminating flooding
36	Halsey-CR.13 Boston Mill Dr	High water, MP. 9.618	Evaluate road for eliminating flooding
37	Halsey-CR.14 Diamond Hill Dr	High water, MP. 0.982	Evaluate road for eliminating flooding
38	Halsey-CR.14 Diamond Hill Dr	High water, MP. 1.433	Evaluate road for eliminating flooding
39	Halsey-CR.14 Diamond Hill Dr	High water, MP. 5.621	Evaluate road for eliminating flooding
40	Halsey-CR.15 Gap Rd	High water, MP. 1.603	Evaluate road for eliminating flooding
41	Halsey-CR.15 Gap Rd	High water, MP. 9.179	Evaluate road for eliminating flooding
42	Halsey-CR.15 Gap Rd	High water, MP. 9.522	Evaluate road for eliminating flooding
43	Halsey-CR.15 Gap Rd	High water, MP. 9.303	Evaluate road for eliminating flooding
44	Halsey-CR.15 Gap Rd	High water, MP. 10.36	Evaluate road for eliminating flooding
45	Halsey-CR.18 Harrison Rd, Brownsville Rd	High water, MP. 3.050	Evaluate road for eliminating flooding
46	Halsey-CR.23 Lake Creek Dr	High water, MP. 1.053	Evaluate road for eliminating flooding
47	Halsey-CR.23 Lake Creek Dr	High water, MP. 1.577	Evaluate road for eliminating flooding
48	Halsey-CR.23 Lake Creek Dr	High water, MP. 4.312	Evaluate road for eliminating flooding
49	Halsey-CR.23 Lake Creek Dr	High water, MP. 4.907	Evaluate road for eliminating flooding
50	Halsey-CR.26 Linn West Dr	High water, MP. 0.01	Evaluate road for eliminating flooding
51	Halsey-CR.26 Linn West Dr	High water, MP. 1.22	Evaluate road for eliminating flooding

Flood Closures and High Water List

List ID	Project Name	Project Description	Need Statement
52	Halsey-CR.26 Linn West Dr	High water, MP. 2.152	Evaluate road for eliminating flooding
53	Halsey-CR.26 Linn West Dr	High water, MP. 2.174	Evaluate road for eliminating flooding
54	Halsey-CR.26 Linn West Dr	High water, MP. 2.324	Evaluate road for eliminating flooding
55	Halsey-CR.26 Linn West Dr	High water, MP. 3.744	Evaluate road for eliminating flooding
56	Halsey-CR.26 Linn West Dr	High water, MP. 4.493	Evaluate road for eliminating flooding
57	Halsey-CR.206 Abraham Dr	High water, MP. 0.108	Evaluate road for eliminating flooding
58	Halsey-CR.206 Abraham Dr	High water, MP. 1.963	Evaluate road for eliminating flooding
59	Halsey-CR.206 Abraham Dr	High water, MP. 4.155	Evaluate road for eliminating flooding
60	Halsey-CR.210 Blueberry Rd	High water, MP. 1.605	Evaluate road for eliminating flooding
61	Halsey-CR.211 Creek Bend Rd	High water, MP. 0.017	Evaluate road for eliminating flooding
62	Halsey-CR.211 Creek Bend Rd	High water, MP. 2.12	Evaluate road for eliminating flooding
63	Halsey-CR.211 Creek Bend Rd	High water, MP. 2.158	Evaluate road for eliminating flooding
64	Halsey-CR.217 Creek Bend Rd, Creek Dr, American Dr	High water, MP.2.056	Evaluate road for eliminating flooding
65	Halsey-CR.217 Creek Bend Rd, Creek Dr, American Dr	High water, MP. 0.797	Evaluate road for eliminating flooding
66	Halsey-CR.218 Powerline Rd	High water, MP. 1.392	Evaluate road for eliminating flooding
67	Halsey-CR.218 Powerline Rd	High water, MP. 1.787	Evaluate road for eliminating flooding
68	Halsey-CR.221 Crook Dr	High water, MP. 0.03	Evaluate road for eliminating flooding
69	Halsey-CR.221 Crook Dr	High water, MP. 1.688	Evaluate road for eliminating flooding
70	Halsey-CR.222 Irish Bend Lp/ Lake Creek Dr	High water, MP. 0.011	Evaluate road for eliminating flooding
71	Halsey-CR.222 Irish Bend Lp/ Lake Creek Dr	High water, MP. 3.598	Evaluate road for eliminating flooding
72	Halsey-CR.223 Nixon Dr	High water, MP. 3.574	Evaluate road for eliminating flooding
73	Halsey-CR.224 Cartney Dr	High water, MP. 4.298	Evaluate road for eliminating flooding
74	Halsey-CR.224 Cartney Dr	High water, MP. 4.953	Evaluate road for eliminating flooding
75	Halsey-CR.231 Old Territorial Rd	High water, MP. 1.073	Evaluate road for eliminating flooding
76	Halsey-CR.231 Old Territorial Rd	High water, MP. 1.325	Evaluate road for eliminating flooding
77	Halsey-CR.232 Priceboro Dr	High water, MP. 1.206	Evaluate road for eliminating flooding
78	Halsey-CR.232 Priceboro Dr	High water, MP. 1.952	Evaluate road for eliminating flooding
79	Halsey-CR.232 Priceboro Dr	High water, MP. 2.401	Evaluate road for eliminating flooding
80	Halsey-CR.232 Priceboro Dr	High water, MP. 2.722	Evaluate road for eliminating flooding
81	Halsey-CR.412 Plainview Dr/ Sand Ridge Rd	High water, MP. 0.247	Evaluate road for eliminating flooding
82	Halsey-CR.412 Plainview Dr/ Sand Ridge Rd	High water, MP. 1.488	Evaluate road for eliminating flooding
83	Halsey-CR.412 Plainview Dr/ Sand Ridge Rd	High water, MP. 2.596	Evaluate road for eliminating flooding
84	Halsey-CR.413 Manning Rd	High water, MP. 0.346	Evaluate road for eliminating flooding
85	Halsey-CR.413 Manning Rd	High water, MP. 1.571	Evaluate road for eliminating flooding
86	Halsey-CR.413 Manning Rd	High water, MP. 2.195	Evaluate road for eliminating flooding
87	Halsey-CR.414 Morgan Dr	High water, MP. 0.007	Evaluate road for eliminating flooding
88	Halsey-CR.414 Morgan Dr	High water, MP. 1.267	Evaluate road for eliminating flooding
89	Halsey-CR.414 Morgan Dr	High water, MP. 0.011	Evaluate road for eliminating flooding
90	Halsey-CR.414 Morgan Dr	High water, MP. 0.985	Evaluate road for eliminating flooding
91	Halsey-CR.420 Roberts Dr	High water, MP. 0.012	Evaluate road for eliminating flooding
92	Halsey-CR.420 Roberts Dr	High water, MP. 2.966	Evaluate road for eliminating flooding
93	Halsey-CR.421 Pugh Dairy Dr	High water, MP. 0.006	Evaluate road for eliminating flooding
94	Halsey-CR.425 Brownville Rd	High water, MP. 5.193	Evaluate road for eliminating flooding
95	Halsey-CR.428 Fisher Rd	High water, MP. 0.164	Evaluate road for eliminating flooding
96	Halsey-CR.430 Ogle Rd	High water, MP. 0.012	Evaluate road for eliminating flooding
97	Halsey-CR.430 Ogle Rd	High water, MP. 0.273	Evaluate road for eliminating flooding
98	Halsey-CR.430 Ogle Rd	High water, MP. 0.706	Evaluate road for eliminating flooding
99	Halsey-CR.430 Ogle Rd	High water, MP. 2.668	Evaluate road for eliminating flooding
100	Halsey-CR.432 Bond Ln	High water, MP. 0.031	Evaluate road for eliminating flooding
101	Halsey-CR.502 Falk Rd	High water, MP. 0.028	Evaluate road for eliminating flooding
102	Halsey-CR.502 Falk Rd	High water, MP. 0.986	Evaluate road for eliminating flooding

Flood Closures and High Water List

List ID	Project Name	Project Description	Need Statement
103	Halsey-CR.503 Kirk Rd	High water, MP. 0.01	Evaluate road for eliminating flooding
104	Halsey-CR.504 Seefeld Dr	High water, MP. 0.028	Evaluate road for eliminating flooding
105	Halsey-CR.504 Seefeld Dr	High water, MP. 1.515	Evaluate road for eliminating flooding
106	Halsey-CR.504A Seefeld Dr	High water, MP. 1.845	Evaluate road for eliminating flooding
107	Halsey-CR.508 Lake Creek Dr	High water, MP. 0.711	Evaluate road for eliminating flooding
108	Halsey-CR.508 Lake Creek Dr	High water, MP. 0.998	Evaluate road for eliminating flooding
109	Halsey-CR.508 Lake Creek Dr	High water, MP. 1.525	Evaluate road for eliminating flooding
110	Halsey-CR.509 Stubbs Rd	High water, MP. 0.013	Evaluate road for eliminating flooding
111	Halsey-CR.509 Stubbs Rd	High water, MP. 0.172	Evaluate road for eliminating flooding
112	Halsey-CR.509 Stubbs Rd	High water, MP. 1.105	Evaluate road for eliminating flooding
113	Halsey-CR.513 Twin Buttes West Dr	High water, MP. 0.504	Evaluate road for eliminating flooding
114	Halsey-CR.513A Twin Buttes West Dr	High water, MP. 0.724	Evaluate road for eliminating flooding
115	Halsey-CR.517 Tub Run Dr	High water, MP.1.555	Evaluate road for eliminating flooding
116	Halsey-CR.517 Tub Run Dr	High water, MP. 2.057	Evaluate road for eliminating flooding
117	Halsey-CR.518 Belts Dr	High water, MP. 3.29	Evaluate road for eliminating flooding
118	Halsey-CR.518 Belts Dr	High water, MP. 3.599	Evaluate road for eliminating flooding
119	Halsey-CR.521 Weatherford Rd/ Priceboro Dr	High water, MP. 0.012	Evaluate road for eliminating flooding
120	Halsey-CR.521 Weatherford Rd/ Priceboro Dr	High water, MP. 1.265	Evaluate road for eliminating flooding
121	Halsey-CR.521 Weatherford Rd/ Priceboro Dr	High water, MP. 3.92	Evaluate road for eliminating flooding
122	Halsey-CR.521 Weatherford Rd/ Priceboro Dr	High water, MP. 4.714	Evaluate road for eliminating flooding
123	Halsey-CR.521 Weatherford Rd/ Priceboro Dr	High water, MP. 5.124	Evaluate road for eliminating flooding
124	Halsey-CR.525 Waggener Rd	High water, MP. 0.012	Evaluate road for eliminating flooding
125	Halsey-CR.713 Vaughan Ln	High water, MP. 0.018	Evaluate road for eliminating flooding
126	Halsey-CR.713 Vaughan Ln	High water, MP. 0.386	Evaluate road for eliminating flooding
127	Halsey-CR.769 Holmes Dr	High water, MP. 0.005	Evaluate road for eliminating flooding
128	Scio-CR.7A Crabtree Dr/ Gilkey Rd	High water, MP. 0.98	Evaluate road for eliminating flooding
129	Scio-CR.7A Crabtree Dr/ Gilkey Rd	High water, MP. 1.35	Evaluate road for eliminating flooding
130	Scio-CR.20L Lacomb Dr	High water, MP. 0.035	Evaluate road for eliminating flooding
131	Scio-CR.20L Lacomb Dr	High water, MP. 1.844	Evaluate road for eliminating flooding
132	Scio-CR.20L Lacomb Dr	High water, MP. 4.46	Evaluate road for eliminating flooding
133	Scio-CR.20L Lacomb Dr	High water, MP. 4.831	Evaluate road for eliminating flooding
134	Scio-CR.612 Slangal Dr	High water, MP. 0.0114	Evaluate road for eliminating flooding
135	Scio-CR.615 Hess Rd	High water, MP. 0.029	Evaluate road for eliminating flooding
136	Scio-CR.615 Hess Rd	High water, MP. 0.5	Evaluate road for eliminating flooding
137	Scio-CR.620 Densmore Rd	High water, MP. 1.09	Evaluate road for eliminating flooding
138	Scio-CR.620 Densmore Rd	High water, MP. 1.508	Evaluate road for eliminating flooding
139	Scio-CR.620 Densmore Rd	High water, MP. 1.54	Evaluate road for eliminating flooding
140	Scio-CR.620 Densmore Rd	High water, MP. 1.71	Evaluate road for eliminating flooding
141	Scio-CR.20L Lacomb Dr	High water, MP. 4.839	Evaluate road for eliminating flooding
142	Scio-CR.622 Kelly Rd	High water, MP. 2.09	Evaluate road for eliminating flooding
143	Scio-CR.622 Kelly Rd	High water, MP. 2.41	Evaluate road for eliminating flooding
144	Scio-CR.623 Crackerneck Dr	High water, MP. 0.01	Evaluate road for eliminating flooding
145	Scio-CR.624 Glaser Dr	High water, MP. 0.01	Evaluate road for eliminating flooding
146	Scio-CR.628 Gilkey Rd	High water, MP. 0.06	Evaluate road for eliminating flooding
147	Scio-CR.646 Freeman Rd	High water, MP. 0.835	Evaluate road for eliminating flooding
148	Scio-CR.646 Freeman Rd	High water, MP. 1.116	Evaluate road for eliminating flooding
149	Scio-CR.647 Hungery Hill Dr	High water, MP. 0.647	Evaluate road for eliminating flooding
150	Scio-CR.647 Hungery Hill Dr	High water, MP. 1.378	Evaluate road for eliminating flooding
151	Scio-CR.670 Baptist Church Dr	High water, MP. 3.491	Evaluate road for eliminating flooding
152	Scio-CR.671 Kowitz Dr	High water, MP. 0.373	Evaluate road for eliminating flooding
153	Scio-CR.671 Kowitz Dr	High water, MP. 0.777	Evaluate road for eliminating flooding

Flood Closures and High Water List

List ID	Project Name	Project Description	Need Statement
154	Sweet Home-CR.760 Crawfordsville Dr	High water, MP. 1.661	Evaluate road for eliminating flooding
155	Sweet Home-CR.760 Crawfordsville Dr	High water, MP. 2.139	Evaluate road for eliminating flooding
156	Sweet Home-CR.765 Courtney Creek Dr	High water, MP. 5.833	Evaluate road for eliminating flooding
157	Sweet Home-CR.765 Courtney Creek Dr	High water, MP. 7.69	Evaluate road for eliminating flooding

Slide Area List

List ID	Project Name	Project Description	Cost Estimate
1	CR.759 and Hwy 228 Slide	Slide Area	$ 2,000,000
2	CR.916 Slide	Slide Area	$ 2,000,000
3	CR.808 Slide	Slide Area	$ 2,000,000
4	CR.35 Slide	Slide Area	$ 2,000,000
5	CR.807 Slide	Slide Area	$ 2,000,000
			$ 10,000,000

Weight Restricted Bridges List

List ID	Project Name	Project Description
1	Becker Dr (3102-014) - Owl Creek	Weight Restricted Bridge, 0.14 mile west of Oak Rd., MP 0.14, Restricted to legal axle weights and 54,000 lbs. GVW
2	Bohlken Dr (658-289) - Cox Creek	Weight Restricted Bridge, 0.235 mile east of Engle Rd., MP 0.235, Restricted to legal axle weights and 80,000 lbs. GVW
3	Brownsville Rd (425-028) (Main St) - Calapooia River	Weight Restricted Bridge, 0.028 mile north of Hwy 228, MP 0.028, Restricted to legal axle weights and 80,000 lbs. GVW
4	Camp Morrison Dr (830-007) - Thomas Creek	Weight Restricted Bridge, 0.07 mile south of OR Hwy 226, MP 0.07, Restricted to legal axle weights and 40,000 lbs. GVW
5	Church Dr (012-532) - Muddy Creek	Weight Restricted Bridge, 1.00 mile east of Peoria Rd, MP 5.32, Restricted to legal axle weights and 30,000 lbs. GVW
6	Clover Ridge Rd (320-082) - Truax Creek	Weight Restricted Bridge, 0.82 mile north of Knox Butte Rd, MP 0.82, Restricted to legal axle weights and 36,000 lbs. GVW
7	East Bilyeu Creek Dr (831-156) - Neal Creek	Weight Restricted Bridge, 0.13 mile west of Morrison Dr, MP 1.56, Restricted to legal axle weights and 76,000 lbs. GVW
8	Fish Hatchery Rd (648-677) - Crabtree Creek	Weight Restricted Bridge, 0.20 mile east of Meridian Dr, MP 6.77, Restricted to legal axle weights and 30,000 lbs. GVW
9	Fish Hatchery Rd (648-680) - Roaring river	Weight Restricted Bridge, 0.30 mile east of Meridian Dr, MP 6.80, Restricted to legal axle weights and 30,000 lbs. GVW
10	Gap Rd (15-342) - Pierce Creek	Weight Restricted Bridge, 0.45 mile north of Diamond Hill Dr, MP 0.45, Restricted to legal axle weights and 80,000 lbs. GVW
11	Goar Rd (629-107) - Crabtree Creek	Weight Restricted Bridge, 0.25 mile north of Gilkey Rd, MP 1.07, Restricted to legal axle weights and 12,000 lbs. GVW
12	High Deck Rd (913-167) - South Santiam River	Weight Restricted Bridge, 0.17 mile north of US Hwy 20, MP 0.07, Restricted to legal axle weights and 80,000 lbs. GVW
13	Hungry Hill Dr (647-162) - Crabtree Creek	Weight Restricted Bridge, 0.10 mile north of Crabtree, MP 1.62, Restricted to legal axle weights and 40,000 lbs. GVW
14	Kelly Rd (622-160) - Thomas Creek	Weight Restricted Bridge, 1.60 mile north of Gilkey Rd, MP 1.60, Restricted to legal axle weights and 70,000 lbs. GVW
15	Miller Rd (617-092) - Smallman Creek	Weight Restricted Bridge, 0.92 mile north of Ridge Dr, MP 0.92, Restricted to legal axle weights and 30,000 lbs. GVW
16	Old Salem Rd (367-319)	Weight Restricted Bridge, 3.19 mile south of Hwy 99E, MP 3.19, Restricted to legal axle weights and 80,000 lbs. GVW
17	Red Bridge Rd (342-297) - Albany Canal	Weight Restricted Bridge, 2.97 mile north of OR Hwy 34, MP 2.97, Restricted to legal axle weights and 30,000 lbs. GVW
18	Richardson Gap Rd (637-070) - Crabtree Creek	Weight Restricted Bridge, 0.70 mile north of OR Hwy 226, MP 0.07, Restricted to legal axle weights and 60,000 lbs. GVW

Geometrically Restricted Roads Restricted Roads List

List ID	Project Name	Project Description
1	Almen Dr (0679)	Weight Restricted, Entire Road, Posted Limit 10 ton
2	Crawfordsville Dr (0760)	Weight Restricted, Scott Mountain Rd west to OR Hwy 228, Posted Limit 15 ton
3	Green Mountain Dr (0842)	Weight Restricted, Hammond Camp Rd to Snow Peak Mainline Rd, Posted Limit 10 ton
4	Headgate Rd (0719A)	Weight Restricted, Entire Road, Posted Limit 18 ton
5	Kirk Ave (3709)	Weight Restricted, Entire Road, Posted Limit 10 ton
6	North McCully Mountain (0807)	Weight Restricted, Gravel Portion Only, Posted Limit 10 ton
7	Perkins Rd (0719A)	Weight Restricted, Headgate Rd east to River Rd, Posted Limit 18 ton
8	Shingle Mill Dr (0848)	Weight Restricted, Green Mountain Dr to MP 0.13, Posted Limit 10 ton
9	Washburn Heights Dr (0797)	Weight Restricted, Entire Road, Posted Limit 15 ton
10	Wildwood Estates Lp (0524A)	Weight Restricted, Entire Road, Posted Limit 25 ton
11	Agan Rd (0706)	Thru Truck Restricted, Entire Road, No Thru Trucks
12	Airport Dr (0707)	Thru Truck Restricted, Denny School Rd to Lebanon City Limits, No Thru Trucks
13	Brownsville RD (0018)	Thru Truck Restricted, Sand Ridge Road to Middle Ridge Rd, No Thru Trucks
14	Cedar Mill Rd (0812)	Thru Truck Restricted, Lyons-Mill City Dr to Trask Haul Rd, No Thru Trucks
15	Creek Bend Rd (0211-0217)	Thru Truck Restricted, Potter Rd to American Dr, No Thru Trucks
16	Crook Dr (0219)	Thru Truck Restricted, Powerline Rd to Peoria Rd, No Thru Trucks
17	Denny School Rd (0010)	Thru Truck Restricted, Oak St to Airport Dr, No Thru Trucks
18	East Lacomb Rd (0841)	Thru Truck Restricted, Island Inn Dr to Meridian Rd, No Thru Trucks
19	Enos Dr (0506)	Thru Truck Restricted, Weber Rd East to OR Hwy 228, No Thru Trucks
20	Fisher Rd (0428)	Thru Truck Restricted, Enos Dr North to OR Hwy 228, No Thru Trucks
21	Gold Fish Farm Rd (0328)	Thru Truck Restricted, US Hwy 20 to Dogwood Ave, No Thru Trucks
22	Harrington Dr (0735)	Thru Truck Restricted, Entire Road, No Thru Trucks
23	Harrison Rd (0018)	Thru Truck Restricted, Entire Road, No Thru Trucks
24	Island Inn Dr (0843)	Thru Truck Restricted, East Lacomb Rd to Green Mountain Dr, No Thru Trucks
25	Kingwood Ave (0813)	Thru Truck Restricted, Lyons-Mill City Dr to First St, No Thru Trucks
26	Knox Butte Rd (0007)	Thru Truck Restricted, US Hwy 20 to Scravel Hill Rd, No Thru Trucks
27	Malpass Rd (0220)	Thru Truck Restricted, Crook Dr to Lake Creek Dr, No Thru Trucks
28	Mason Rd (0306)	Thru Truck Restricted, Forsland Quarry to Santiam Bluff Rd, No Thru Trucks
29	McFarland Rd (0112)	Thru Truck Restricted, 500 feet north of Old Hwy 34 to OR Hwy 99E, No Thru Trucks
30	Montgomery Dr (0634)	Thru Truck Restricted, Entire Road, No Thru Trucks
31	Nicewood Dr (0003)	Thru Truck Restricted, Entire Road, No Thru Trucks
32	Nicewood Ln (0003/0239)	Thru Truck Restricted, Entire Road, No Thru Trucks
33	North River Dr (0035)	Thru Truck Restricted, Sunnyside Rd to Marks Ridge Dr, No Thru Trucks
34	Oakville Rd (0032)	Thru Truck Restricted, Albany City Limits to OR Hwy 34, No Thru Trucks
35	Oakville Rd (0134)	Thru Truck Restricted, Peoria Rd East to Church Dr, No Thru Trucks
36	Peoria Rd (0002)	Thru Truck Restricted, Entire Road, No Thru Trucks
37	Seefeld Dr (0504) / Kirk Dr (0503)	Thru Truck Restricted, Entire Roads (Lake Creek Dr to Lake Creek Dr), No Thru Trucks
38	Spicer Wayside (3328)	Thru Truck Restricted, Entire Road, No Thru Trucks
39	Swank Dr (0341)	Thru Truck Restricted, Entire Road, No Thru Trucks
40	Townsend Rd (0734)	Thru Truck Restricted, Entire Road, No Thru Trucks
41	Boston Mill Dr (0013)	Thru Truck Restricted, Hwy 99E to 1st St, Truck Route
42	1st St Shedd (0241) / (3401)	Thru Truck Restricted, Boston Mill Dr South to 150 ft North of F Street, Truck Route
43	A Street Shedd (03401D)	Thru Truck Restricted, Hwy 99E East to 1st Street, No Thru Trucks
44	C Street Shedd (03401E)	Thru Truck Restricted, Hwy 99E East to 1st Street, Truck Route
45	D Street Shedd (03401J)	Thru Truck Restricted, Hwy 99E East to 1st Street, No Thru Trucks
46	F Street Shedd (03401L)	Thru Truck Restricted, Hwy 99E East to 1st Street, No Thru Trucks
47	Seefeld Dr (0504) / Kirk Dr (0503)	Length Restricted, Entire Roads (Lake Creek Dr to Lake Creek Dr), 60' Max. length
48	Sodaville-Waterloo Rd (0723)	Length Restricted, Townsend Rd to Sodaville Rd, 40' Max. length
49	Quartzville Dr (0912)	Length Restricted, US Hwy 20 to End of County Rd (MP 12), 60' Max. length
50	Richardso Gap Rd (0637)	Length Restricted, Shimanek Bridge Dr to Cole School Rd, 60' Max. length
51	North McCully Mountain (0807)	Length Restricted, Gravel Portion Only, 40' Max. length
52	Walnut Dr (0109)	Length Restricted, Riverside Dr East to the address of 30392, 60' Max. length
53	Walnut Dr (0109)	Length Restricted, Meadow Rd East to Oakville Rd, 60' Max. length
54	North River Dr (0035)	Sunnyside Rd to Foster Dam, Commercial Hauling by Permit Only

Fish Passage Barrier Improvements List

List ID	Project Name	Project Description
1	Kingston-Jordan Dr - Upgrade culvert for Unnamed Waterway	Repair, replace, or upgrade culvert to remove barriers to safe fish passage. Road Number 5-B, Milepost TBD
2	Queener Dr - Upgrade culvert for Unnamed Waterway	Repair, replace, or upgrade culvert to remove barriers to safe fish passage. Road Number 605, Milepost TBD
3	Speasl Rd - Upgrade culvert for Morgan Crk	Repair, replace, or upgrade culvert to remove barriers to safe fish passage. Road Number 927, Milepost TBD
4	Speasl Rd - Upgrade culvert for Johnson Crk	Repair, replace, or upgrade culvert to remove barriers to safe fish passage. Road Number 927, Milepost TBD
5	Santiam Terrace Rd - Upgrade culvert for Unnamed Waterway	Repair, replace, or upgrade culvert to remove barriers to safe fish passage. Road Number 746, Milepost TBD
6	Santiam Terrace Rd - Upgrade culvert for Unnamed Waterway	Repair, replace, or upgrade culvert to remove barriers to safe fish passage. Road Number 746, Milepost TBD
7	Upper Berlin Dr - Upgrade culvert for Jack Crk	Repair, replace, or upgrade culvert to remove barriers to safe fish passage. Road Number 903, Milepost TBD
8	North River Dr - Upgrade culvert for Lewis Crk	Repair, replace, or upgrade culvert to remove barriers to safe fish passage. Road Number 35, Milepost TBD
9	Jefferson-Scio Dr - Upgrade culvert for Sucker Sl	Repair, replace, or upgrade culvert to remove barriers to safe fish passage. Road Number 4, Milepost TBD
10	Lulay Rd - Upgrade culvert for Burmester Crk	Repair, replace, or upgrade culvert to remove barriers to safe fish passage. Road Number 834, Milepost TBD
11	Sodaville-Waterloo Dr - Upgrade culvert for Unnamed Waterway	Repair, replace, or upgrade culvert to remove barriers to safe fish passage. Road Number 732, Milepost TBD
12	Unnamed Road Near Mt. Pleasant Rd. - Upgrade culvert for Onehorse Sl	Repair, replace, or upgrade culvert to remove barriers to safe fish passage. Road Number 725-A, Milepost TBD
13	Kingston-Jordan Dr - Upgrade culvert for Bear Branch Creek	Repair, replace, or upgrade culvert to remove barriers to safe fish passage. Road Number 606, Milepost 3.031
14	Bellinger Scale Rd - Upgrade culvert for Unnamed Waterway	Repair, replace, or upgrade culvert to remove barriers to safe fish passage. Road Number 722, Milepost 4.479
15	Northern Dr - Upgrade culvert for Unnamed Waterway	Repair, replace, or upgrade culvert to remove barriers to safe fish passage. Road Number 767, Milepost 0.34
16	Old Holley Rd - Upgrade culvert for Unnamed Waterway	Repair, replace, or upgrade culvert to remove barriers to safe fish passage. Road Number 755, Milepost 4.19
17	6Th Ave - Upgrade culvert for Peters Ditch	Repair, replace, or upgrade culvert to remove barriers to safe fish passage. Road Number 632, Milepost 0.38
18	Rock Hill Dr - Upgrade culvert for Unnamed Waterway	Repair, replace, or upgrade culvert to remove barriers to safe fish passage. Road Number 739, Milepost 1.34
19	Kirk Dr - Upgrade culvert for Unnamed Waterway	Repair, replace, or upgrade culvert to remove barriers to safe fish passage. Road Number 743, Milepost 0.54
20	Upper Calapooia Dr - Upgrade culvert for Unnamed Waterway	Repair, replace, or upgrade culvert to remove barriers to safe fish passage. Road Number 759, Milepost 2.03
21	Numerous Fish Passage Improvement Projects	Replacement of culverts with bridges, per North Santiam Watershed Council Plan

ODOT Roadway Departure Safety Implementation Plan - State Highway Locations

Route Name	Countermeasure	Beginning M	Ending M.P.
I-5	**Alignment Delineation and Lighting**	**237.50**	**240.34**
I-5	Alignment Delineation and Lighting	237.50	238.07
I-5	Alignment Delineation and Lighting	239.77	240.34
I-5	**Shoulder Rumble Strips**	**219.89**	**240.34**
I-5	Shoulder Rumble Strips	219.89	220.45
I-5	Shoulder Rumble Strips	230.68	231.25
I-5	Shoulder Rumble Strips	234.09	234.66
I-5	Shoulder Rumble Strips	234.66	235.23
I-5	Shoulder Rumble Strips	236.93	237.50
I-5	Shoulder Rumble Strips	237.50	238.07
I-5	Shoulder Rumble Strips	239.77	240.34
OR 126	**Centerline Rumble Strips**	**5.68**	**8.52**
OR 126	Centerline Rumble Strips	5.68	8.52
OR 126	**Edgeline Rumble Strips**	**2.84**	**9.09**
OR 126	Edgeline Rumble Strips	2.84	3.41
OR 126	Edgeline Rumble Strips	4.55	5.11
OR 126	Edgeline Rumble Strips	8.52	9.09
OR 126	**Enhanced Signing and Marking for Curves**	**6.25**	**10.23**
OR 126	Enhanced Signing and Marking for Curves	6.25	6.82
OR 126	Enhanced Signing and Marking for Curves	8.52	9.09
OR 126	Enhanced Signing and Marking for Curves	9.66	10.23
OR 164	**Shoulder Rumble Strips**	**7.95**	**8.52**
OR 164	Shoulder Rumble Strips	7.95	8.52
OR 22	**Centerline Rumble Strips**	**68.18**	**82.39**
OR 22	Centerline Rumble Strips	68.18	71.02
OR 22	Centerline Rumble Strips	71.02	73.86
OR 22	Centerline Rumble Strips	73.86	76.70
OR 22	Centerline Rumble Strips	76.70	79.55
OR 22	Centerline Rumble Strips	79.55	82.39
OR 22	**Edgeline Rumble Strips**	**61.93**	**62.50**
OR 22	Edgeline Rumble Strips	61.93	62.50
OR 22	**Enhanced Signing and Marking for Curves**	**67.61**	**66.48**
OR 22	Enhanced Signing and Marking for Curves	65.91	66.48
OR 22	Enhanced Signing and Marking for Curves	67.61	68.18
OR 22	Enhanced Signing and Marking for Curves	69.89	70.45
OR 22	Enhanced Signing and Marking for Curves	70.45	71.02
OR 22	Enhanced Signing and Marking for Curves	71.02	71.59
OR 22	Enhanced Signing and Marking for Curves	72.16	72.73
OR 22	Enhanced Signing and Marking for Curves	74.43	75.00
OR 22	Enhanced Signing and Marking for Curves	76.14	76.70
OR 22	Enhanced Signing and Marking for Curves	80.68	81.25
OR 22	**Shoulder Rumble Strips**	**61.36**	**81.82**
OR 22	Shoulder Rumble Strips	61.36	61.93
OR 22	Shoulder Rumble Strips	65.91	66.48
OR 22	Shoulder Rumble Strips	66.48	67.05
OR 22	Shoulder Rumble Strips	67.61	68.18
OR 22	Shoulder Rumble Strips	68.18	68.75
OR 22	Shoulder Rumble Strips	69.89	70.45
OR 22	Shoulder Rumble Strips	71.02	71.59
OR 22	Shoulder Rumble Strips	71.59	72.16
OR 22	Shoulder Rumble Strips	72.16	72.73
OR 22	Shoulder Rumble Strips	72.73	73.30
OR 22	Shoulder Rumble Strips	73.86	74.43

ODOT Roadway Departure Safety Implementation Plan - State Highway Locations

Route Name	Countermeasure	Beginning M	Ending M.P.
OR 22	Shoulder Rumble Strips	74.43	75.00
OR 22	Shoulder Rumble Strips	75.00	75.57
OR 22	Shoulder Rumble Strips	75.57	76.14
OR 22	Shoulder Rumble Strips	76.70	77.27
OR 22	Shoulder Rumble Strips	77.27	77.84
OR 22	Shoulder Rumble Strips	78.98	79.55
OR 22	Shoulder Rumble Strips	79.55	80.11
OR 22	Shoulder Rumble Strips	80.68	81.25
OR 22	Shoulder Rumble Strips	81.25	81.82
OR 226	**Edgeline Rumble Strips**	**4.55**	**24.43**
OR 226	Edgeline Rumble Strips	4.55	5.11
OR 226	Edgeline Rumble Strips	7.95	8.52
OR 226	Edgeline Rumble Strips	10.80	11.36
OR 226	Edgeline Rumble Strips	11.93	12.50
OR 226	Edgeline Rumble Strips	13.64	14.20
OR 226	Edgeline Rumble Strips	17.05	17.61
OR 226	Edgeline Rumble Strips	18.75	19.32
OR 226	Edgeline Rumble Strips	19.89	20.45
OR 226	Edgeline Rumble Strips	20.45	21.02
OR 226	Edgeline Rumble Strips	21.59	22.16
OR 226	Edgeline Rumble Strips	22.16	22.73
OR 226	Edgeline Rumble Strips	22.73	23.30
OR 226	Edgeline Rumble Strips	23.86	24.43
OR 226	**Enhanced Signing and Marking for Curves**	**10.80**	**23.30**
OR 226	Enhanced Signing and Marking for Curves	10.80	11.36
OR 226	Enhanced Signing and Marking for Curves	17.61	18.18
OR 226	Enhanced Signing and Marking for Curves	21.59	22.16
OR 226	Enhanced Signing and Marking for Curves	22.73	23.30
OR 226	**Shoulder Rumble Strips**	**9.09**	**18.18**
OR 226	Shoulder Rumble Strips	9.09	9.66
OR 226	Shoulder Rumble Strips	17.61	18.18
OR 228	**Alignment Delineation and Lighting**	**7.95**	**8.52**
OR 228	Alignment Delineation and Lighting	7.95	8.52
OR 228	**Centerline Rumble Strips**	**5.68**	**8.52**
OR 228	Centerline Rumble Strips	5.68	8.52
OR 228	**Edgeline Rumble Strips**	**6.82**	**20.45**
OR 228	Edgeline Rumble Strips	6.82	7.39
OR 228	Edgeline Rumble Strips	7.39	7.95
OR 228	Edgeline Rumble Strips	7.95	8.52
OR 228	Edgeline Rumble Strips	8.52	9.09
OR 228	Edgeline Rumble Strips	9.09	9.66
OR 228	Edgeline Rumble Strips	10.80	11.36
OR 228	Edgeline Rumble Strips	11.36	11.93
OR 228	Edgeline Rumble Strips	17.61	18.18
OR 228	Edgeline Rumble Strips	18.75	19.32
OR 228	Edgeline Rumble Strips	19.32	19.89
OR 228	Edgeline Rumble Strips	19.89	20.45
OR 228	**Enhanced Signing and Marking for Curves**	**7.39**	**19.89**
OR 228	Enhanced Signing and Marking for Curves	7.39	7.95
OR 228	Enhanced Signing and Marking for Curves	7.95	8.52
OR 228	Enhanced Signing and Marking for Curves	8.52	9.09
OR 228	Enhanced Signing and Marking for Curves	9.09	9.66
OR 228	Enhanced Signing and Marking for Curves	19.32	19.89

ODOT Roadway Departure Safety Implementation Plan - State Highway Locations

Route Name	Countermeasure	Beginning M	Ending M.P.
OR 228	**Shoulder Rumble Strips**	**2.84**	**4.55**
OR 228	Shoulder Rumble Strips	2.84	3.41
OR 228	Shoulder Rumble Strips	3.41	3.98
OR 228	Shoulder Rumble Strips	3.98	4.55
OR 34	Alignment Delineation and Lighting	2.84	3.41
OR 34	Alignment Delineation and Lighting	5.11	5.68
OR 34	Centerline Rumble Strips	0.00	2.84
OR 34	Centerline Rumble Strips	2.84	5.68
OR 34	Centerline Rumble Strips	5.68	8.52
OR 34	Centerline Rumble Strips	8.52	11.36
OR 34	Centerline Rumble Strips	14.20	17.05
OR 34	Shoulder Rumble Strips	9.66	10.23
OR 99E	**Centerline Rumble Strips**	**11.36**	**14.20**
OR 99E	Centerline Rumble Strips	11.36	14.20
OR 99E	**Edgeline Rumble Strips**	**10.23**	**19.32**
OR 99E	Edgeline Rumble Strips	10.23	10.80
OR 99E	Edgeline Rumble Strips	10.80	11.36
OR 99E	Edgeline Rumble Strips	11.93	12.50
OR 99E	Edgeline Rumble Strips	16.48	17.05
OR 99E	Edgeline Rumble Strips	18.75	19.32
OR 99E	**Enhanced Signing and Marking for Curves**	**10.23**	**12.50**
OR 99E	Enhanced Signing and Marking for Curves	10.23	10.80
OR 99E	Enhanced Signing and Marking for Curves	11.93	12.50
OR 99E	**Shoulder Rumble Strips**	**7.39**	**26.70**
OR 99E	Shoulder Rumble Strips	7.39	7.95
OR 99E	Shoulder Rumble Strips	8.52	9.09
OR 99E	Shoulder Rumble Strips	10.80	11.36
OR 99E	Shoulder Rumble Strips	26.14	26.70
US 20	**Alignment Delineation and Lighting**	**77.84**	**80.11**
US 20	Alignment Delineation and Lighting	77.84	78.41
US 20	Alignment Delineation and Lighting	78.41	78.98
US 20	Alignment Delineation and Lighting	78.98	79.55
US 20	Alignment Delineation and Lighting	79.55	80.11
US 20	Alignment Delineation and Lighting	999.43	1000.00
US 20	**Centerline Rumble Strips**	**2.84**	**82.39**
US 20	Centerline Rumble Strips	2.84	5.68
US 20	Centerline Rumble Strips	17.05	19.89
US 20	Centerline Rumble Strips	19.89	22.73
US 20	Centerline Rumble Strips	22.73	25.57
US 20	Centerline Rumble Strips	31.25	34.09
US 20	Centerline Rumble Strips	34.09	36.93
US 20	Centerline Rumble Strips	36.93	39.77
US 20	Centerline Rumble Strips	73.86	76.70
US 20	Centerline Rumble Strips	76.70	79.55
US 20	Centerline Rumble Strips	79.55	82.39
US 20	**Edgeline Rumble Strips**	**16.48**	**73.86**
US 20	Edgeline Rumble Strips	16.48	17.05
US 20	Edgeline Rumble Strips	33.52	34.09
US 20	Edgeline Rumble Strips	34.09	34.66
US 20	Edgeline Rumble Strips	34.66	35.23
US 20	Edgeline Rumble Strips	35.80	36.36
US 20	Edgeline Rumble Strips	36.36	36.93
US 20	Edgeline Rumble Strips	37.50	38.07

ODOT Roadway Departure Safety Implementation Plan - State Highway Locations

Route Name	Countermeasure	Beginning M	Ending M.P.
US 20	Edgeline Rumble Strips	38.07	38.64
US 20	Edgeline Rumble Strips	44.32	44.89
US 20	Edgeline Rumble Strips	44.89	45.45
US 20	Edgeline Rumble Strips	46.59	47.16
US 20	Edgeline Rumble Strips	47.16	47.73
US 20	Edgeline Rumble Strips	47.73	48.30
US 20	Edgeline Rumble Strips	51.14	51.70
US 20	Edgeline Rumble Strips	52.84	53.41
US 20	Edgeline Rumble Strips	53.98	54.55
US 20	Edgeline Rumble Strips	55.11	55.68
US 20	Edgeline Rumble Strips	68.18	68.75
US 20	Edgeline Rumble Strips	68.75	69.32
US 20	Edgeline Rumble Strips	69.32	69.89
US 20	Edgeline Rumble Strips	69.89	70.45
US 20	Edgeline Rumble Strips	73.30	73.86
US 20	**Enhanced Signing and Marking for Curves**	**25.00**	**80.11**
US 20	Enhanced Signing and Marking for Curves	25.00	25.57
US 20	Enhanced Signing and Marking for Curves	25.57	26.14
US 20	Enhanced Signing and Marking for Curves	31.82	32.39
US 20	Enhanced Signing and Marking for Curves	32.39	32.95
US 20	Enhanced Signing and Marking for Curves	33.52	34.09
US 20	Enhanced Signing and Marking for Curves	34.09	34.66
US 20	Enhanced Signing and Marking for Curves	34.66	35.23
US 20	Enhanced Signing and Marking for Curves	35.80	36.36
US 20	Enhanced Signing and Marking for Curves	36.36	36.93
US 20	Enhanced Signing and Marking for Curves	37.50	38.07
US 20	Enhanced Signing and Marking for Curves	38.07	38.64
US 20	Enhanced Signing and Marking for Curves	44.32	44.89
US 20	Enhanced Signing and Marking for Curves	44.89	45.45
US 20	Enhanced Signing and Marking for Curves	47.16	47.73
US 20	Enhanced Signing and Marking for Curves	47.73	48.30
US 20	Enhanced Signing and Marking for Curves	51.14	51.70
US 20	Enhanced Signing and Marking for Curves	52.84	53.41
US 20	Enhanced Signing and Marking for Curves	53.98	54.55
US 20	Enhanced Signing and Marking for Curves	55.11	55.68
US 20	Enhanced Signing and Marking for Curves	56.82	57.39
US 20	Enhanced Signing and Marking for Curves	57.95	58.52
US 20	Enhanced Signing and Marking for Curves	60.80	61.36
US 20	Enhanced Signing and Marking for Curves	62.50	63.07
US 20	Enhanced Signing and Marking for Curves	63.07	63.64
US 20	Enhanced Signing and Marking for Curves	64.20	64.77
US 20	Enhanced Signing and Marking for Curves	69.32	69.89
US 20	Enhanced Signing and Marking for Curves	75.00	75.57
US 20	Enhanced Signing and Marking for Curves	75.57	76.14
US 20	Enhanced Signing and Marking for Curves	76.70	77.27
US 20	Enhanced Signing and Marking for Curves	77.84	78.41
US 20	Enhanced Signing and Marking for Curves	78.41	78.98
US 20	Enhanced Signing and Marking for Curves	78.98	79.55
US 20	Enhanced Signing and Marking for Curves	79.55	80.11
US 20	**Enhanced Signing and Marking for Curves, Plus Flashing Beacons**	**78.41**	**79.55**
US 20	Enhanced Signing and Marking for Curves, Plus Flashing Beacons	78.41	78.98
US 20	Enhanced Signing and Marking for Curves, Plus Flashing Beacons	78.98	79.55
US 20	**Shoulder Rumble Strips**	**2.84**	**80.11**

ODOT Roadway Departure Safety Implementation Plan - State Highway Locations

Route Name	Countermeasure	Beginning M	Ending M.P.
US 20	Shoulder Rumble Strips	2.84	3.41
US 20	Shoulder Rumble Strips	3.41	3.98
US 20	Shoulder Rumble Strips	3.98	4.55
US 20	Shoulder Rumble Strips	4.55	5.11
US 20	Shoulder Rumble Strips	6.25	6.82
US 20	Shoulder Rumble Strips	7.39	7.95
US 20	Shoulder Rumble Strips	7.95	8.52
US 20	Shoulder Rumble Strips	8.52	9.09
US 20	Shoulder Rumble Strips	10.80	11.36
US 20	Shoulder Rumble Strips	11.36	11.93
US 20	Shoulder Rumble Strips	18.75	19.32
US 20	Shoulder Rumble Strips	21.59	22.16
US 20	Shoulder Rumble Strips	22.73	23.30
US 20	Shoulder Rumble Strips	25.00	25.57
US 20	Shoulder Rumble Strips	35.80	36.36
US 20	Shoulder Rumble Strips	47.16	47.73
US 20	Shoulder Rumble Strips	56.82	57.39
US 20	Shoulder Rumble Strips	60.80	61.36
US 20	Shoulder Rumble Strips	62.50	63.07
US 20	Shoulder Rumble Strips	63.07	63.64
US 20	Shoulder Rumble Strips	63.64	64.20
US 20	Shoulder Rumble Strips	64.20	64.77
US 20	Shoulder Rumble Strips	64.77	65.34
US 20	Shoulder Rumble Strips	65.34	65.91
US 20	Shoulder Rumble Strips	70.45	71.02
US 20	Shoulder Rumble Strips	73.86	74.43
US 20	Shoulder Rumble Strips	74.43	75.00
US 20	Shoulder Rumble Strips	75.00	75.57
US 20	Shoulder Rumble Strips	76.14	76.70
US 20	Shoulder Rumble Strips	76.70	77.27
US 20	Shoulder Rumble Strips	77.84	78.41
US 20	Shoulder Rumble Strips	78.41	78.98
US 20	Shoulder Rumble Strips	78.98	79.55
US 20	Shoulder Rumble Strips	79.55	80.11

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Section M:

Tech Memo 12: Alternative Mobility Targets

Tech Memo 12 was not written because alternative mobility standards were not required for this project.

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Section N:

Tech Memo 13: Implementing Ordinances

The contents of Volume 2 represent an iterative process in the development of the TSP. Refinements to various plan elements occurred throughout the process as new information was obtained. In all cases, the contents of Volume 1 supersede those in Volume 2.

LAND USE PLANNING
TRANSPORTATION PLANNING
PROJECT MANAGEMENT

MEMORANDUM

DATE	9/01/17
TO	Linn County TSP Project Management Team
FROM	Darci Rudzinski & Clinton "CJ" Doxsee, Angelo Planning Group
RE	**Technical Memorandum #13: Implementing Ordinances**
CC	Carl Springer & Mat Dolata, DKS Associates

This memorandum provides recommended modifications to Linn County's Land Development Code ("Code") to implement the updated Linn County Transportation System Plan (TSP) as well as elements of the Transportation Planning Rule (TPR). Elements of Linn County's TSP are implemented in the requirements of the Code. The Code regulates development within unincorporated Linn County and implements the long-range land use vision embodied in the Linn County Comprehensive Plan, of which the TSP is the transportation element. Recommended modifications are based on an audit of the Code (see Technical Memorandum #2 - Plan Review Summary, Attachment B Draft Regulatory Review) and direction from County Staff.

Table 1 provides a summary of recommended Code modifications, the corresponding TSP goal or TPR rule, and the Code chapter recommended to be modified. Specific ordinance language that is proposed to be added to the Code is <u>underlined</u> and language that is proposed to be deleted is ~~struck through~~. In some instances, there will be new text shown in [brackets] that indicate where choices regarding thresholds need to be considered.

Table 1: Recommended Code Modification Summary

	RECOMMENDATION	SUPPORT/RATIONAL	CODE CHAPTER
1.	**Update legislative plan/code amendment procedure to be consistent with TPR -0060.** Decision criteria for amending Linn County's Comprehensive Plan or Development Code would require impacts to transportation facilities to be consistent with the design and standards found in the updated TSP.	Draft TSP Goal 1: Mobility Draft TSP Goal 6: Sustainability TPR -0060	921 – Administration of the Land Development Code
2.	**Expand applicability conditions of approval for**	Draft TSP Goal 1:	933 – Condition,

	RECOMMENDATION	SUPPORT/RATIONAL	CODE CHAPTER
	transportation related impacts. General approval conditions, which may be applied to any land development decision, would be expanded to include safety and connectivity improvements for bicycle and pedestrian facilities. Note, approval conditions are also found in proposed traffic impact analysis standards.	Mobility TPR -0045(2)(e)	Requirements, & Decision Criteria Code
3.	**Update minimum bicycle parking requirements for specific uses.** Bicycle parking requirements for public and commercial parking lots and schools would be added where parking areas exceed [10] spaces.	Draft TSP Goal 2: Active Transportation Draft TSP Goal 4: Equity Draft TSP Goal 6: Sustainability TPR -0045(3)(a)	934 – Development Standards Code
4.	**Update references to road design standards.** County road design standards will specifically reference applicable standards in ODOT's Highway Design Manual (HDM)	Draft TSP Goal 5: Health and Safety Draft TSP Goal 6: Sustainability TPR -0045(7)	935 – Access Improvement Standards Code
5.	**Update access spacing standards to be consistent with updated TSP.** Street spacing/access standards will reference access spacing standards included in the updated TSP and include standards for long-term access consolidation.	Draft TSP Goal 1: Mobility TPR -0045(2)(a)	935 – Access Improvement Standards Code
6.	**Add clear and objective standards for when development proposals are required to prepare a traffic impact analysis (TIA).** A new section is proposed that provides clear and objective standards for TIA applicability, study requirements, and approval conditions and criteria for TIAs.	Draft TSP Goal 1: Mobility Draft TSP Goal 6: Sustainability TPR -0045(1)(c) TPR -0045(2)(b)	940 – Traffic Impact Analysis (new)

RECOMMENDATION 1

A. LAND DEVELOPMENT CODE

…

921.822 Decision criteria for Zoning Map amendments

…

(B) Except as stated in subsection (A) and LCC 921.824, a Zoning Map amendment from one zoning district to another may be granted if on the basis of the application, investigation, testimony and evidence submitted, findings and conclusions show that all of the following conditions exist:

> (1) The presence of development limitations including but not limited to geologic hazards, natural hazards, water quality and quantity and septic suitability, do not significantly adversely affect development permitted in the proposed zoning district;
>
> (2) The amendment will result in a development pattern having no significant adverse impact upon ~~transportation facilities,~~ police and fire protection, storm drainage facilities or the provision of other regional public facilities;
>
> (3) The amendment will result in a development pattern compatible with uses on nearby lands and will have no significant adverse impact on the overall land use pattern in the area;
>
> (4) The amendment is consistent with the intent and purpose statement of the proposed zoning district;
>
> (5) The amendment is consistent with the existing Comprehensive Plan map designation;
>
> (6) The amendment will not have a significant adverse impact on a sensitive fish or wildlife habitat; and
>
> (7) The amendment, if within an adopted urban growth boundary, is consistent with the Comprehensive Plan and implementing ordinance of the affected city.
>
> <u>(8) The amendment is consistent with the adopted Transportation System Plan and the planned function, capacity, and performance standards of the impacted facility or facilities. Requirements of the State Transportation Planning Rule shall apply to those land use actions that significantly affect the transportation system, as defined by OAR 660-012-0060.</u>

921.824 Decision criteria for Development Code text amendments.

(A) A Land Development Code text amendment may be granted if on the basis of the application, investigation, testimony and evidence submitted, findings and conclusions show that:

> (1) The amendment is consistent with the intent and purpose statement of the affected Chapter or subchapter of the Land Development Code; and

(2) The amendment is consistent with the intent of the policies within the applicable section (s) of the Comprehensive Plan.

…

B. COMPREHENSIVE PLAN

…

921.872 Decision criteria for Plan text amendments

To approve a plan text amendment, the following criteria shall be met:

(A) The amendment is consistent with the intent of the applicable section (s) of the Comprehensive Plan; and

(B) The amendment is consistent with the statewide planning goals.

921.874 Decision criteria for Plan map amendments

(A) To approve a plan map amendment, findings shall be made that:

(1) The amendment is consistent with and does not alter the intent of applicable section(s) of the Comprehensive Plan;

(2) The amendment will be compatible with adjacent uses and will not adversely impact the overall land use pattern in the area;

(3) The amendment, if within an adopted urban growth boundary, is in substantial conformity with the Comprehensive Plan and implementing ordinances of an affected city;

(4) The amendment will not have a significant adverse impact on a sensitive fish or wildlife habitat;

(5) The amendment will not have a significant adverse impact upon the provision of public facilities including police and fire protection, sanitary facilities and storm drainage facilities;

(6) The amendment will not have a significant adverse impact upon the transportation facilities;

(7) The presence of any development limitations including geologic hazards, flood hazards or water quality or quantity will not have a significant adverse affect on land uses permitted through the amendment;

(8) An exception to the statewide planning goals is not required. If required, then findings have been prepared to meet the exception criteria; and

(9) The amendment is consistent with the statewide planning goals.

<u>(10) The amendment is consistent with the adopted Transportation System Plan and the planned function, capacity, and performance standards of the impacted facility or facilities.</u>

Requirements of the State Transportation Planning Rule shall apply to those land use actions that significantly affect the transportation system, as defined by OAR 660-012-0060.

RECOMMENDATION 2

933.100 Conditions; generally

(A) Additional conditions. Any land development decision resulting from a review required by the Land Development Code, may be subject to the imposition of permit conditions. These permit conditions are those determined to be reasonably necessary to ensure compliance with the intent of the Land Development Code and the Comprehensive Plan and to aid in achieving compatibility with the applicable decision criteria. The permit conditions may include, but are not limited to:

…

(17) Such other conditions as will make possible the development of the county in an orderly and efficient manner conforming with the intent and purposes set forth in this Land Development Code and the Comprehensive ~~Plan.~~ Plan;

(18) Improve bicycle or pedestrian facilities for safety and connectivity.

RECOMMENDATION 3

E. PARKING STANDARDS

…

934.265 Bicycle Parking

(A) All developments, excluding uses listed in 934.265(C), where required new vehicle parking areas exceed 10 motorized spaces must include a designated area for bicycle parking within 50 feet of a public entrance.

(B) The following standards shall be considered as supplemental requirements for the number of required parking spaces.

(1) Parking Lots. All public and commercial parking lots shall provide a minimum of one (1) bicycle parking space for every [10] motor vehicle parking spaces.

(2) Schools. Elementary and middle schools, both private and public, shall provide one bicycle parking space for every [10] students and employees. High schools shall provide one bicycle parking space for every [5] students and employees. All spaces shall be sheltered under an eave, overhang, independent structure, or similar cover.

(C) Single-family dwellings, mobile homes, warehouse, storage and wholesale businesses, and manufacturing establishments shall be exempted from the requirements of Section 934.265 Bicycle Parking.

RECOMMENDATION 4

935.920 Design Standards

…

(B) Design features for roadways shall be in accordance with ~~standards developed and maintained by the County Road Department and available through that office~~ ODOT Highway Design Manual, *Table 7-2: ODOT 4R/New Rural Arterial Design Standards* or *Table 7-3: Minimum 3R Lane and Shoulder Widths*.

RECOMMENDATION 5

935.920 Design Standards

…

(D) ~~Intersection Design~~ Street Spacing Standards:

~~(1) There shall be not less than 200 feet between centerlines on staggered "T" intersections where centerlines have an angle at intersections of less than 45 degrees.~~

~~(2) Not less than 125 feet between centerlines on intersections of larger angles.~~

~~(3) Access points shall not be closer than 150' from a road intersection unless otherwise approved by the Linn County Road Department.~~

(1) Access Spacing Standards

(a) Minimum access spacing standards are established in Table 3 in the Transportation System Plan for County roads according to their functional classification and speed. Reduced spacing may be permitted when supported by the findings of a traffic impact analysis and approved by the County Engineer.

(b) Notwithstanding Section (a) above, Linn County streets located within an Urban Growth Boundary (UGB) shall conform to the roadway and access spacing standards of the local jurisdiction.

(2) Long-term Consolidation of Access. The number of driveway and private street intersections with public streets shall be minimized by the use of shared driveways with adjoining lots where feasible. The County shall require shared driveways as a condition of

land division or site development review, as applicable, for the traffic safety and access management purposes in accordance with the following standards:

(a) Shared driveways and frontage streets may be required to consolidate access onto a collector or arterial street. When shared driveways or frontage streets are required, they shall be stubbed to adjacent developable parcels to indicate future extension. “Stub” means that a driveway or street temporarily ends at the property line, but may be extended in the future as the adjacent parcel develops. “Developable” means that a parcel is either vacant or it is likely to receive additional development (i.e., due to infill or redevelopment potential).

(b) Reciprocal access easements (i.e., for the benefit of affected properties) shall be recorded for all shared driveways, including paths, at the time of final plat approval or as a condition of the site development approval.

(3). Access Consolidation Exception. Shared driveways are not required when existing development patterns or physical constraints (e.g., topography, parcel configuration, and similar conditions) prevent extending the street/driveway in the future.

RECOMMENDATION 6

CHAPTER 940

TRAFFIC IMPACT ANALYSIS

940.005 Statement of purpose

The purpose of this section is to implement Sections 660-012-0045 (2)(e) of the State Transportation Planning Rule (TPR), which requires the County to adopt a process to apply conditions to development proposals in order to minimize impacts on and protect transportation facilities. This section establishes requirements for when a traffic impact analysis (TIA) must be prepared and submitted; the analysis methods and content involved in a TIA; criteria used to review the TIA; and authority to attach conditions of approval to minimize the impacts of the proposal on transportation facilities.

940.010 Applicability

(A) A traffic impact analysis (TIA) shall be required to be submitted to the County with a land use application at the request of the *[Planning Director/County Roadmaster]* or if the proposal is expected to involve one or more of the following:

(1) An amendment to Title 9 – Community Development Code or the Linn County Zoning Map.

(2) ODOT requires a TIA in conjunction with a requested approach road permit, as specified in OAR 734-051-3030(4).

(3) The proposal generates 25 or more trips during either the AM or PM peak-hour trips or more than 250 daily trips.

(4) The location of an existing or proposed access driveway does not meet minimum spacing or sight distance requirements.

(5) The development is expected to significantly impact adjacent roadways and intersections that have previously been identified as high crash locations or areas that contain a high concentration of pedestrians or bicyclists such as school zones.

(6) An increase in use of adjacent roadways by vehicles exceeding the 20,000 pound gross vehicle weights by 10 vehicles or more per day.

940.015 Requirements

The following are typical requirements that may be modified in coordination with Road Department Staff based on the specific application.

(A) Pre-application Conference. The applicant shall meet with the [*County Engineer*] prior to submitting an application that requires a TIA. This meeting will be coordinated with ODOT when an approach road to an ODOT facility serves the property, so that the TIA will meet the requirements of all relevant agencies.

(B) Preparation. The TIA shall be prepared by an Oregon Registered Professional Engineer qualified to perform traffic Engineering analysis and will be paid for by the applicant.

(C) Typical Average Daily Trips and Peak Hour Trips. The latest edition of the Trip Generation Manual, published by the Institute of Transportation Engineers (ITE), shall be used to gauge PM peak hour vehicle trips, unless a specific trip generation study that is approved by the [*County Engineer*] indicates an alternative trip generation rate is appropriate.

(D) Intersection-level Analysis. Intersection-level analysis shall be determined based on the methodologies identified in the Highway Capacity Manual (HCM).

(E) Transportation Planning Rule Compliance. The requirements of OAR 660-012-0060 shall apply to those land use actions that significantly affect the transportation system, as defined by the Transportation Planning Rule.

940.020 Study Area

The following facilities shall be included in the study area for all TIAs:

(A) All site-access points and intersections (signalized and unsignalized) adjacent to the proposed development site. If the site fronts an arterial or collector street, the analysis shall address all intersections and driveways along the site frontage and within the access spacing distances extending out from the boundary of the site frontage.

(B) Roads and streets through and adjacent to the site.

(C) All intersections were the analysis shows that 10% or more of an approach volume can be expected to result from the development.

(D) In addition to these requirements, the *[County Engineer]* may require analysis of any additional intersections or roadway links that are deemed necessary to address safety or operational concerns in proximity to the site.

940.025 Analysis Periods

To adequately assess the impacts of a proposed land use action, the following study periods, or horizon years, should be addressed in the transportation impact analysis where applicable:

(A) Existing Year.

(B) Background Conditions in Project Completion Year. The conditions in the year in which the proposed land use action will be completed and occupied, but without the expected traffic from the proposed land use action. This analysis should account for all County-approved developments that are expected to be fully built out in the proposed land use action horizon year, as well as all planned transportation system improvements.

(C) Full Buildout Conditions in Project Completion Year. The background condition plus traffic from the proposed land use action assuming full build-out and occupancy.

(D) Phased Years of Completion. If the project involves construction or occupancy in phases, the applicant shall assess the expected roadway and intersection conditions resulting from major development phases. Phased years of analysis will be determined in coordination with County staff.

(E) Twenty-Year or TSP Horizon Year. For comprehensive plan amendments or zoning map amendments, the applicant shall assess the expected future roadway, intersection, and land use conditions as compared to approved comprehensive planning documents.

940.030 Approval Criteria

When a TIA is required, a proposal is subject to the following criteria, in addition to all criteria otherwise applicable to the underlying land use proposal:

(A) The analysis complies with the requirements of 935.015 and 935.020.

(B) The analysis demonstrates that adequate transportation facilities exist to serve the proposed development or identifies mitigation measures in a manner that is satisfactory to the *[County Engineer]* and, to ODOT when State highway facilities are affected;

(C) For affected non-highway facilities, the TIA demonstrates that applicable performance standards established in the adopted Transportation System Plan have been met; and

(D) Proposed public improvements are designed and will be constructed to the street standards specified in Transportation System Plan and the *[applicable Linn County Road Department design standards].*

940.035 Conditions of Approval

The County may deny, approve, or approve a development proposal with conditions needed to ensure transportation safety and operations standards and provide the necessary right-of-way and improvements to ensure consistency with the future planned transportation system. Improvements required as a condition of development approval, when not voluntarily provided by the applicant, shall be roughly proportional to the impact of the development on transportation facilities. Findings in the development approval shall indicate how the required improvements are directly related to and are roughly proportional to the impact of development.

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