OREGON BICYCLE AND PEDESTRIAN PLAN

Implementation Work Program

Oregon Department of Transportation

Putting Policy Into Action

Volume I: Near Term Actions

ODOT Implementation Work Program

VOLUME I: NEAR TERM ACTIONS

In its continued commitment to making biking and walking safer, more accessible, and more efficient, ODOT has identified a number of action items from the recently adopted 2016 Oregon Bicycle and Pedestrian Plan that can be implemented within the next five years. This document summarizes those actions and lays out ODOT's approach. ODOT's Implementation Work Program, combined with decision making direction from the Plan and existing efforts, represents the activities and direction needed to help assure "people of all ages, incomes, and abilities can access destinations in urban and rural areas on comfortable, safe, well-connected biking and walking routes" and achieve other outcomes described in the Plan's vision.

This document is the first of three volumes, and describes ODOT's deliverable-based actions in the near term (0-5 years). Future volumes of the ODOT Work Program will describe mid-term (5-15 years) and long term (15 years and beyond) actions toward meeting the vision and goals identified in the 2016 Oregon Bicycle and Pedestrian Plan.

The purpose of the ODOT Work Program is to provide a roadmap for the agency and to demonstrate ODOT's commitment moving forward, sharing that approach with the Oregon Transportation Commission, key advisory bodies (e.g. Oregon Bicycle and Pedestrian Advisory Committee), and interested stakeholders.

For more information, please contact the following staff or visit the Bicycle and Pedestrian Plan website:

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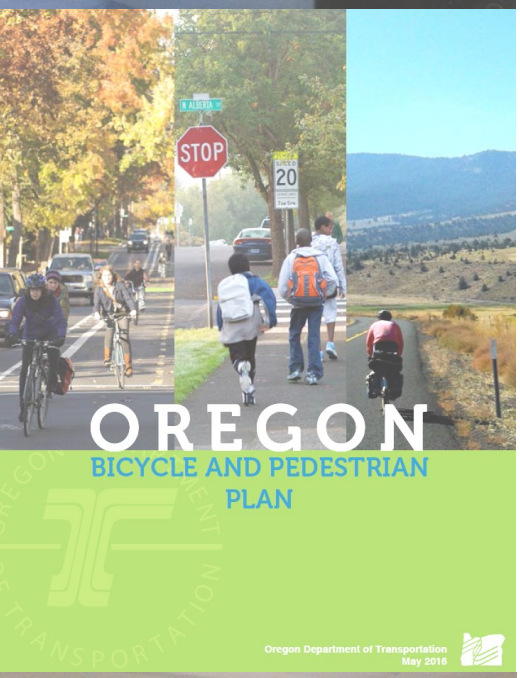
Bicycle and Pedestrian Plan website: http://www.oregon.gov/ODOT/TD/TP/Pages/bikepedplan.aspx



Background

The Oregon Transportation Commission (OTC) adopted the Oregon Bicycle and Pedestrian Plan (Plan) on May 19, 2016. This culminated a two-year process to develop a statewide policy plan to guide decisions that impact biking and walking in Oregon. The Plan was developed with extensive community engagement including a Policy Advisory Committee (PAC), listening sessions held around the state, comments collected through an online open house, and feedback gathered through a three-month public review period. The PAC was chaired by OTC Commissioner Tammy Baney and was comprised of elected officials and representatives from businesses, biking and walking advocacy groups, advocates for people with disabilities, and representatives of other modes including public transportation and freight.

The Plan provides a framework for walking and biking efforts for ODOT, as well as local, regional, and state agencies and organizations across Oregon.

Several of the policies in the plan function to guide decisions as certain situations or opportunities arise, such as Strategy 4.1E which calls for the provision of adequate bike parking. Other policies in the plan identify specific deliverables, such as Strategy 1.1A which calls for updating ODOT Design Guidelines and Highway Design Manual to identify appropriate pedestrian and bicycle design features. For these deliverable-based items, decisions need to be made about when and how they are produced, which is the purpose of this Implementation Work Plan.

Central to near term efforts are the Plan's three Key Initiatives, which are deemed foundational activities. Each Key Initiative represents a set of policies and strategies that collectively represent a body of work central to achieving the Plan's goals and vision. This document outlines the implementation work ODOT has identified to move the Key Initiatives forward as well as other actions that can be undertaken in the near-term.

Moving forward – near term efforts

Staff from ODOT's Planning and Active Transportation sections interviewed more than 20 managers and lead workers across the Agency to document and develop an understanding of existing initiatives that support policies in the Oregon Bicycle and Pedestrian Plan and opportunities for implementing key actions. The result of that work is this document, the ODOT Bicycle and Pedestrian Plan Implementation Work Program, which identifies near term work efforts that can be initiated between 2016 and 2021.

Implementation of this work will occur within existing resources across the Agency. Many organizational units will be responsible for its success, and individual action items will be led by Planning, Active Transportation, Technical Services, and the ODOT Regions.

Active transportation staff will coordinate and monitor efforts. There may be unforeseen issues or opportunities that will impact this work program, and it will need to be responsive to the resources available and priorities.

The following pages provide high level summaries of near term efforts necessary to implement the Key Initiatives along with Additional Actions to be undertaken in the same timeframe.

Further details on these near term efforts, including actions identified, progress completed to date, linked strategies, and levels of effort is summarized by the tables on pages 14 through 17.

KEY INITIATIVES

1. Defining the network

Establish design and function expectations. Provide clarity on appropriate infrastructure, design, and treatments given unique contexts. Identify needs.

2. Data

Quality data supports efficient and effective decision making. Focus on data collection and standardization that relates directly to decision making and performance measurement.

3. Program level performance measures

Develop performance measures that can be used to help assess needs, system condition and program performance, as well as support investment decisions.

Supportive effort spotlight

The action items in this document reflect work needed above and beyond what ODOT does today. These sidebars on "supporting efforts" highlight other work the agency is currently undertaking that helps achieve the Oregon Bicycle and Pedestrian Plan Vision.

CROSSING NEEDS

Wide streets with long block lengths and high speeds can be a challenge for pedestrians to cross. When convenient crossing points are not identified, pedestrians may cross at unpredictable locations, creating confusion and adding risk for themselves and drivers.

Where these issues have been noted, ODOT has worked to find the right solution, such as:

- **Signalized pedestrian crossings**
- **Pedestrian refuges, mid-street islands, curb extensions**
- **Painted crossings, raised crosswalk platforms, distinct materials to differentiate from street, lighting, overhead warning signs**

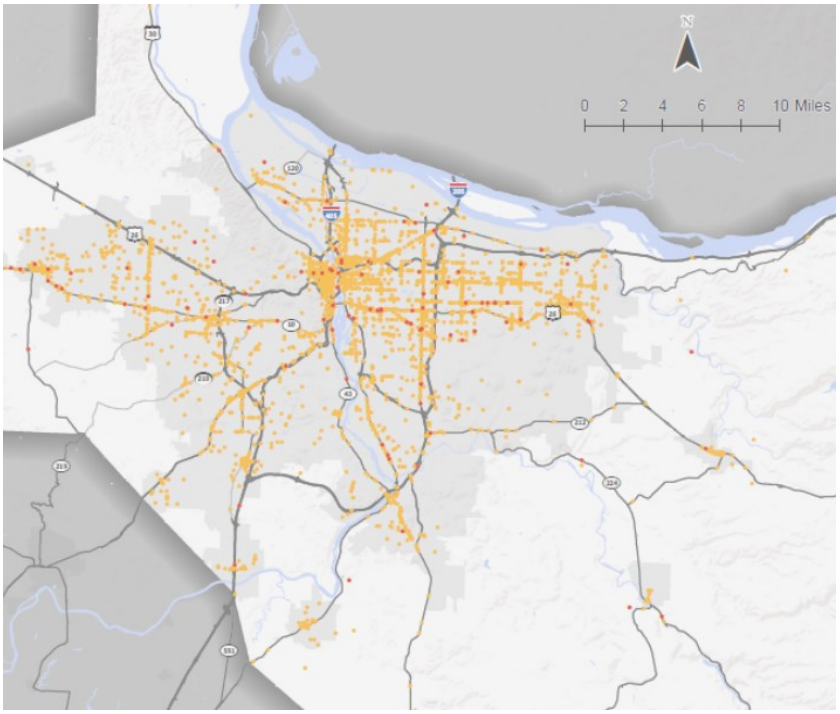
The photo below is from Cove, Oregon, where a Rapid Flashing Beacon was installed to facilitate a safe crossing of OR-237:

KEY INITIATIVE 1:

Defining the network

This key initiative helps inform walking and biking network needs, project priorities, and how the system is built, modified, or maintained. It establishes design and function expectations to help address stakeholder interests. In order to move this key initiative forward, ODOT will build upon its existing inventory of sidewalks, bike lanes, and curb ramps in urbanized areas. The additional information will be used to identify facility gaps, evaluate needs, and inform biking and walking investment priorities. In addition, ODOT will initiate an effort to update design guidance to identify appropriate pedestrian and bicycle design features (e.g. types of separation, buffers, or crossing designs) suitable for different contexts. This will provide direction for the types of facilities that should be in place across the state, further informing the needs on the biking and walking system. Together, these items will help set expectations for what steps need to be taken to ensure the system is designed to make bicycle and pedestrian facilities attractive, safe, accessible, and efficient.

Screenshot from the Region 1 Active Transportation Needs Inventory (ATNI) tool:



Actions identified:

Inventory the existing system: *Inventory the existing biking and walking system on ODOT roads to identify and prioritize gaps, maintenance issues and other needs.*

- Adapt the Active Transportation Needs Inventory (ATNI) methodology developed in ODOT Region 1 to other parts of the state system
- Pilot approach in Regions 4 and 5, identifying and prioritizing biking and walking needs
- Once pilot work has completed, determine application in Regions 2 and 3
- Continue ATNI work in Region 1, prioritizing needs and integrating findings into considerations for decision making

Update design guidelines: *Continue to update ODOT design guidance to provide clarity on appropriate biking and walking infrastructure, design, and treatments given unique contexts, such as vehicle speeds and volumes, geometry, roadway characteristics, land use, users of the system, etc.*

- Identify documents to be updated
- Engage stakeholders on high-level interests and concerns, and take into consideration
- Conduct research and assess experiences
- Update specifications, standards and overall design guidance

Setting expectations: *Set expectation for how the biking and walking system is built and rebuilt – what the appropriate types of facilities and designs are, given unique contexts.*

- Learn from the Inventory of the Existing System and Design Guidelines Update to determine the appropriate biking and walking infrastructure, design and treatments on the system and associated needs
- Determine the best way to set expectations for these through implementation of design guidance, development of designations or classifications, or by other means

Progress completed to date:

- ☑ Region 1 Active Transportation Needs Inventory (ATNI) complete
- ☑ Regions 4 and 5 ATNI work underway with the support of a consultant
- ☑ Aligned need for biking and walking guidance update with Agency interest in updated and new urban design guidance
- ☑ Formed internal technical work group who will develop and agree on new guidance
- ☑ Initiated consultant contract to support guidance development

Supportive effort spotlight

INVENTORY PROCESS

ODOT collects inventory data on the state urban system, consisting of the presence or absence of sidewalks, bike lanes, and curb ramps that meet minimum dimensional and condition standards.

This data is used to support the performance measure as well as statewide mapping and inventory efforts.

ODOT's Region 1 office in the Portland metro area developed a process to use the existing inventory data as a baseline to develop an enhanced inventory. Region 1's Active Transportation Needs Inventory was completed in two phases. Phase I updated ODOT's inventory of pedestrian and bicycle facilities (e.g., sidewalks, bike lanes, paths) and identified gaps on ODOT Region 1 highways. Phase II evaluated needs from Phase I and created a framework for identifying projects to advance as future funding opportunities become available.

ODOT Regions 4 and 5 in central and eastern Oregon are utilizing Region 1's methodology and lessons learned to create their own Active Transportation Needs Inventories.

Supportive effort spotlight

MOVING TOWARD A BIKE COUNT PROGRAM

All state departments of transportation across the country have vehicle count programs aimed at understanding how many vehicles are using the system and where. However, programs aimed at counting bikes are still in their infancy.

To lay the groundwork for a bike count program, ODOT partnered with Portland State University (PSU) to research and identify the best tools and methods for bicycle count collection.

ODOT is also working with PSU on a data repository and standards for storing and sharing bike counts statewide.

This effort lays the foundation for creating a bike count program in the future that provides quality data on ridership, exposure to risk, and safety.

Currently ODOT has three permanent bike counters located on the I-205 multi-use path, the Historic Columbia River Highway Trail and on Highway 101 on the Oregon coast. In addition, pneumatic tube counters have been placed on other bicycle facilities for short term counting efforts.

KEY INITIATIVES 2 & 3:

Data and Performance Measures

Although *Data* and *Performance Measures* represent two of the Key Initiatives, they are presented together because they are deeply linked. Quality data is needed for effective and efficient decision making as well as performance monitoring. Specific performance measures can help ODOT assess needs, system conditions, and program performance.

ODOT collects and processes a tremendous amount of data on a variety of topics but lacks a comprehensive bicycle and pedestrian data program that will assist in decision making around strategic investments. For example, ODOT is currently only able to obtain and process crash data if an incident involves a motor vehicle. Crash data for incidents that do not involve a motorized vehicle are slowly becoming more available through partnerships with other agencies. Pedestrian and bicycle volume data is also lacking. However, bicycle and pedestrian data collection and management is a rapidly growing and evolving field. One example includes the opportunity to utilize the increasing volume of user-initiated walking and biking data through personal fitness trackers uploaded to social network websites. Work is underway to move these topics forward. However the level of effort to make good use of this data will be high, and is likely to require new resources and will be an ongoing and iterative process.

Actions identified:

Data: *Understand existing data and explore new and emerging sources, supporting those that will be used in efficient and effective decision making and monitoring.*

- Inventory existing data collected
- Keep track of new and evolving sources of data
- Consider opportunities for leveraging data collection efforts as appropriate
- Continue to collect data that relates directly to decision making and performance measures
- Continue to support research on data collection and storage methods

Plan and program level performance measures: *Identify Plan and program-level performance measures.*

- Engage stakeholders through the formation of an advisory group
- Explore the "possible future Performance Measures" which were identified during Plan development
- Research additional and promising measures
- Assess data availability, quality, applicability, etc.
- Select performance measures and integrate into decision making processes
- Explore opportunities to update the Key Performance Measure for bicycle and pedestrian modes

Progress completed to date:

- ☑ Three research projects have been conducted by PSU and ODOT that involve data collection and/or storage
- ☑ ODOT is in the process of testing and exploring data from crowdsourcing, permanent counters, etc.

Supportive effort spotlight

EMS DATA SHARING

ODOT has been working collaboratively with the Oregon Health Authority – Public Health Division's Injury and Violence Prevention Section in a project that upgrades the Oregon Trauma Registry.

This work integrates Emergency Medical Service (EMS) prehospital data with trauma data.

As a result of this collaboration , ODOT will have access to more crash data, including non-vehicle involved crashes.

This will create a significant improvement in ODOT's ability to understand factors influencing bicycle and pedestrian crashes that currently do not enter Department of Transportation databases.

Supportive effort spotlight

OREGONIAN CROSSING CAMPAIGN

Sasquatch leads the way promoting pedestrian safety in a positive, caring, community building message that "Every Intersection is a Crossing."

This popular campaign came out of collaborative efforts to develop and promote a powerful, positive graphic for the message.

The initial investment has been leveraged for use throughout the state and with partners including TriMet, Metro, Washington County, Clackamas County, Portland Bureau of Transportation, Hillsboro, Safe Routes to School, OHSU ThinkFirst, and the Region 1 Bicycle/Pedestrian Safety Working Group.

ADDITIONAL ACTIONS:

Other near term actions

In addition to work on strategies directly related to the *Key Initiatives*, several opportunities were identified to leverage or promote other activities within the Agency that advance the implementation strategies in the Plan or support achieving the Plan's vision. These are described below.

Actions identified:

Staffing

- Create and fill Active Transportation Liaison (ATL) positions

Investment programs

- Assess investment programs for opportunity to integrate or align Plan prioritization framework
- Consult with local jurisdictions to support development of bicycle and pedestrian projects for ODOT funding programs
- Utilize inventory information for strategic decision making, including consideration of "high priority locations" such as proximity to schools and transit stops
- In accordance with adopted Plan policy, continue to fund programmatic investments in Safe Routes to School

Speeds

- Utilize the update of bicycle and pedestrian design guidance (described in the Defining the Network key initiative) to identify design treatments to help address safety issues related to speeds

Bicycle detection

- Install new standard bicycle detection loops at intersections as preservation and construction projects occur

Maintenance

- Continue to implement updated maintenance policies on paving and sweeping of shoulders

Equity

- Document existing processes for considering equity in Agency decision making and identify opportunities to integrate equity considerations into Agency policies and procedures, as appropriate

Safe Routes to School programmatic elements

- Continue to work with local and state partners
- Disseminate SRTS education and communication materials
- Prioritize investments around schools as part of the "Defining the Network" key initiative

Update planning guidance documents

- Update the Transportation System Plan (TSP) Guidelines, integrating the Oregon Bicycle and Pedestrian Plan policy and strategy direction, where appropriate

Transportation safety information

- Educate travelers on the rules of the road
- Refresh existing and develop new materials on an ongoing basis
- Explore new distribution techniques and channels

Work zones

- Incorporate consideration of pedestrian and bicyclist navigation and safety into work zone management plans, and update drawing and guidance
- Communicate route and detour information, and partner with Travel Oregon, Oregon Parks and Recreation and others on traveler route options

Level of traffic stress (LTS)

- Conduct bicycle and pedestrian connectivity analysis such as LTS
- Develop LTS analysis procedures and incorporate in ODOT's Analysis Procedures Manual, and update as appropriate
- Identify and pursue opportunities to collect and house LTS data
- Consider the application of LTS as a performance measure

Progress completed to date:

- ☑ Active Transportation Liaisons have been identified or hired in Regions 1, 2, 4, and 5, and an open position is being advertised in Region 3
- ☑ Integration of bicycle and pedestrian projects in STIP Enhance
- ☑ *Connect*Oregon has funded off-system bicycle and pedestrian improvements since 2013
- ☑ Bicycle detection loops in bike lanes at signalized intersections are included within design standards
- ☑ Maintenance policies and plans have been updated to address shoulder paving, sweeping, and special bicycling events
- ☑ Equity has been added as a criterion in selection of Safe Routes to School grants
- ☑ Consultant contract to support TSP Guidelines development initiated
- ☑ "Every intersection is a crosswalk" campaign underway
- ☑ Drawings and guidance have been updated to reflect bicycle and pedestrian accommodation in work zones
- ☑ LTS methodology has been developed for bicycles and pedestrians and incorporated in the Analysis Procedures Manual
- ☑ Worked with local communities to support LTS analysis in TSPs

Supportive effort spotlight

SAFE WORK ZONES FOR ALL

Work zone safety is a top priority for ODOT, industry partners, and law enforcement. ODOT has launched a more concerted effort to ensure accommodation and safety of pedestrians and bicyclists in work zones. Drawings, guidance, and materials requirements have all been updated, and ODOT staff does regular trainings on work zone accommodations for bicycles, pedestrians and persons with disabilities.

Recently added guidance, processes, and tools in the *ODOT Traffic Control Plans Design Manual* include:

- **Pedestrian Channelizing Devices (PCD)**
- **Bicycle Channeling Devices (BCD)**
- **Detour/Alternative Route strategies— On and Off-side routes**

Supportive effort spotlight

TUALATIN RIVER GREENWAY TRAIL

The Tualatin River Greenway Trail is a bicycle and pedestrian facility that promotes active, healthy living, and economic vitality through walking and biking while connecting people with nature, residential and commercial areas, jobs, bus and rail transit, and public facilities.

The new ¾ mile trail improves connectivity and enhances transportation options. The trail, funded in part through *Connect*Oregon, fills a gap in a 4.7 mile segment of the Tualatin River Greenway Trail.

It includes a lighted, safe, and inviting crossing under Interstate 5 and runs along the banks of the scenic Tualatin River, linking the cities of Tualatin, Durham, and Tigard.

This trail project received an Excellence in Sustainability Award for Green Infrastructure from the American Planning Association in April 2016.

Supporting efforts

The action items identified in this document are additional efforts needed beyond the work the Agency is currently doing to support biking and walking. ODOT also engages in many other activities to plan for, invest in, construct, and maintain the state's biking and walking system. Some of these activities are generally described below.

Plan

In 1995, ODOT adopted its first and groundbreaking Bicycle and Pedestrian Plan and associated design guidance. The design guidance was extracted and updated in 2011 and the policy piece was updated with the most recent plan in 2016. This long-term policy direction has supported and directed agency decision making for the past several decades. In addition, in ODOT's regional plans and in its work with local jurisdictions on their planning efforts, multimodal needs are considered and planned for in accordance with statewide policy direction and with the Transportation Planning Rule. These plans highlight needs for biking and walking and identify projects.

Invest

In accordance with the Oregon Bike Bill (ORS 366.514), ODOT invests in bikeways and walkways whenever a road, street, or highway is built, rebuilt, or relocated and directs at least one percent of the State Highway Trust Fund dollars to projects supporting biking and walking. For example, funding programs like the Sidewalk Improvement Program (SWIP) go to fund biking and walking projects on the maintenance side of things, while programs like *Connect*Oregon and the Statewide Transportation Improvement Program (STIP), fund enhancements to the system. Under modifications to the STIP Enhance process in 2012, ODOT instituted changes to enable projects to be developed which addressed system needs *multimodaly*. As a result, many local Area Commissions on Transportation (ACTs), which help to prioritize and recommend projects, have added members to represent bicycle or health interests.

Construct

ODOT has specific guidance documents and standards dedicated to the design of biking and walking facilities. These guidance documents and directives have helped to assure that a functional and safe biking and walking system is built. In addition, substantial work has been done by ODOT's Technical Services staff in recent years to ensure accommodation and safety of pedestrians and bicyclists in work zones.

Maintain

Over the past five years, ODOT Active Transportation staff have partnered with those in the Maintenance Division to better understand and address maintenance issues related to biking and walking. As a result, a new policy was developed in 2014 regarding the paving of shoulders to address how overlays should extend across the entire shoulder smoothly, so that no shelf or ledge is formed. In addition, policies on sweeping were amended so that Maintenance Districts take into consideration important bike routes or known bike events, such as Cycle Oregon, and adjust sweeping plans accordingly. It also asks that sweeping is conducted as soon as feasible after storms and crashes.

Other

ODOT supports biking and walking in other ways too, including through programs like Scenic Bikeways and Safe Routes to Schools, by producing and disseminating outreach and communications materials, through funding research projects and through partnerships. As an example, ODOT recently completed two studies to test bicycle count methods, and the results of this work have informed changes in standards for bicycle detection loops. Another example is ODOT's partnership with the Oregon Health Authority - Public Health Division (OHA-PHD) to work collaboratively to identify, develop and promote connections between public health and transportation. One of the areas that has benefited from this partnership is data sharing, including improved quality and access to trauma data. As a result of this collaboration, ODOT can now access more crash data to improve safety through research, planning, and quality improvement efforts.

Supportive effort spotlight

PEDAL CORVALIS

Corvallis' bikeshare program, *Pedal Corvallis*, rolled into town in June 2016 thanks to a collaboration between several community partners, including the region's Medicaid provider – the InterCommunity Health Network Coordinated Care Organization (IHN-CCO) – and the Oregon Cascades West Council of Governments (OCWCOG), a regional planning and service-delivery agency that covers Benton, Lincoln, and Linn Counties.

The partnership between these groups, though already in progress, was furthered by participation in an ODOT-DLCD sponsored workshop on the links between health and transportation.

Next steps

ODOT has made some progress on many of the Action Items identified in this ODOT Work Program. Other near term Action Items will be started within the next five years as time and resources permit. ODOT Active Transportation and Planning Staff anticipate regular check-ins with ODOT management teams, the Oregon Transportation Commission, and the Oregon Bicycle and Pedestrian Advisory Committee. Briefings to Area Commissions on Transportation (ACTs) or other groups can be provided as desired.

Mid term and long term actions

Over the 25 year life of the 2016 Oregon Bicycle and Pedestrian Plan, the timing of implementation strategies will be influenced by need, opportunities, and available resources. Whenever possible, ODOT will seek to leverage other work to make progress on Plan strategies. The second volume of this Implementation Work Plan will focus on midterm strategies (to be accomplished in the 5 to 15 year horizon). It will be developed around 2021. At that time, other actions to be prioritized include such things as development or enhancement of guidance on a variety of topics including illumination and striping, and additional efforts around data.

The progress of Plan implementation will be kept up to date on the website. Future volumes of the ODOT Work Program will be influenced by any updates to the Oregon Bicycle and Pedestrian Plan, which will be revisited and revised as needed to stay fresh to the changing landscape.

Appendix A: Detail of near term actions

The following pages provide further detail on near term efforts necessary to implement the Key Initiatives along with Additional Actions to be undertaken in the same timeframe. In order to support immediate implementation, some progress has been made to help jumpstart actions, which is described in the "Progress" column.

Level of effort is expressed as "high", "medium" or "low" which indicates a staff level estimate of the resources and time required to successfully undertake each action item. Most items on the near term list are anticipated to be medium or high levels of effort, indicating that multiple staff will be involved and work will take place over an extended period of time. This work program will need to be responsive to unforeseen opportunities and challenges including changes in federal or legislative requirements, shifting priorities and resource limitations. Medium to high level of effort initiatives require strong agency support and may include a project manager as well as a work group, prioritizing the project for an extended time period. Items identified as a low level of effort can generally be accomplished by staff within a single division or unit within a discrete amount of time, or are already well supported by existing policies and procedures.

Initiative 1: Defining the network

Focus area	Description	Actions	Progress (to date)	Strategy	Level of effort required
Inventory the existing system	Inventory the existing biking and walking system on ODOT roads to identify and prioritize gaps, maintenance issues and other needs.	• Adapt the Active Transportation Needs Inventory (ATNI) methodology developed in ODOT Region 1 to other parts of the state system • Pilot approach in Regions 4 and 5, identifying and prioritizing biking and walking needs • Once pilot work has completed, determine application in Regions 2 and 3 • Continue ATNI work in Region 1, prioritizing needs and integrating findings into considerations for decision making	• Region 1 inventory complete • Regions 4 and 5 ATNI work underway with the support of a consultant	2.2B	 **Medium**
Design guidelines update	Continue to update ODOT design guidance to provide clarity on appropriate biking and walking infrastructure, design, and treatments given unique contexts, such as: vehicle speeds and volumes, geometry, roadway characteristics, land use, users of the system, etc.	• Identify documents to be updated • Engage stakeholders on high-level interests and concerns, and take into consideration • Conduct research and assess experiences • Update specifications, standards and overall design guidance	• Aligned need for biking and walking guidance update with Agency interest in updated and new urban design guidance • Formed internal technical work group who will develop and agree on new guidance • Initiated consultant contract to support guidance development		 **High**
Setting expectations	Set expectation for how the biking and walking system is built and rebuilt – what the appropriate types of facilities and designs are, given unique contexts.	• Learn from the Inventory of the Existing System and Design Guidelines Update to determine the appropriate biking and walking infrastructure, design and treatments on the system and associated needs • Determine the best way to set expectations for these through implementation of design guidance, development of designations or classifications, or by other means			**TBD**

Initiatives 2 & 3: Data and performance measures

Focus area	Description	Action	Progress (to date)	Strategy	Level of effort required
Data	Understand existing data and explore new and emerging sources, supporting those that will be used in efficient and effective decision making and monitoring.	• Inventory existing data collected • Keep track of new and evolving sources of data • Consider opportunities for leveraging data collection efforts as appropriate • Continue to collect data that relates directly to decision making and performance measures • Continue to support research on data collection and storage methods	• Three research projects have been conducted by PSU and ODOT that involve data collection and/or storage • In the process of testing and exploring data from crowdsourcing, permanent counters, etc.	1.1 2.1 2.3 5.1 5.2 5.3 6.1	 **High**
Plan and program level performance measures	Identify Plan and program-level performance measures.	• Engage stakeholders through the formation of an advisory group • Explore the "possible future Performance Measures" which were identified during Plan development • Research additional and promising measures • Assess data availability, quality, applicability, etc. • Select performance measures and integrate into decision making processes • Explore opportunities to update the Key Performance Measure for bicycles and pedestrians		1.1 2.5 5.3 8.1 8.2 8.3	 **Medium**

Additional actions

Focus area	Description	Action	Progress (to date)	Strategy	Level of effort required
Staffing	Form Active Transportation Liaison (ATL) positions in the ODOT Regions to support Plan implementation and integration of biking and walking into decision making.	• Create and fill positions	• ATLs have been identified or hired in Regions 1, 2, 4, and 5, and an open position is being advertised in	All	**N/A**
Investment programs	Integrate priorities of the Bicycle and Pedestrian Plan into funding program considerations.	• Assess investment programs for opportunity to integrate or align Plan prioritization framework • Consult with local jurisdictions to support development of bicycle and pedestrian projects for ODOT funding programs • Utilize inventory information for strategic decision making, including consideration of "high priority locations" such as proximity to schools and transit stops • In accordance with adopted Plan policy, continue to fund programmatic investments in Safe Routes to School	• Through the creation of STIP Enhance, integration of bicycle and pedestrian projects in the STIP has been improved. • *Connect*Oregon has funded off-system bicycle and pedestrian improvements since 2013.	8.2A, 8.3A	**Medium**
Speeds	Identify and utilize design treatments to help address safety issues relative to speeds, determining appropriate contexts	• Utilize the update of bicycle and pedestrian design guidance (described in the Defining the Network key initiative) to address this action item		1.1I	**Medium**
Bicycle detection	When installing new or modifying existing traffic signals, include installation of bicycle detection devices where feasible.	• Install new standard bicycle detection loops at intersections as preservation and construction projects occur *(ongoing)*	• Included bicycle detection loops in bike lanes at signalized intersections within design standards.	3.2H	**Low**
Maintenance	Help to preserve pedestrian and bicycle mobility and safety through maintenance activities via maintenance guidance and priority setting. Priority setting will include considerations for pedestrian and bicycles according to the activity.	• Continue to implement updated maintenance policies on paving and sweeping of shoulders	• Maintenance policies and plans have been updated to address shoulder paving and sweeping as well as special bicycling events.	3.2I	**Low**
Equity	Explore ways to integrate equity criteria into decision making and prioritization of walking and biking investments in underserved areas and to transportation disadvantaged populations.	• Document existing processes for integrating equity into decision making and identify opportunities • Integrate equity consideration into Agency policies and procedures, and into decision making, as appropriate	• Equity has been added as a criterion in selection of Safe Routes to School grants.	5.3	**Medium**

Additional actions *(continued)*

Focus area	Description	Action	Progress (to date)	Strategy	Level of effort required
Safe Routes to School programmatic elements	Build and maintain partnerships with local jurisdictions, schools and education districts, the Oregon Department of Education, the Oregon Health Authority, and local transportation options providers through collaborative efforts to endorse, promote and implement SRTS Programs.	• Continue to work with local and state partners • Disseminate SRTS educational and communication materials • As part of "Inventory the Existing System" under the Defining the Network key initiative, prioritize investments around schools (consistent with plan policy direction)		8.2B, 1.3A, 1.3B, 1.3C	**Medium**
Update planning guidance documents	Support local jurisdictions to achieve consistency with the Plan when they update their local Transportation System Plans.	• Update the Transportation System Plan Guidelines, integrating the Oregon Bicycle and Pedestrian Plan policy and strategy direction, where appropriate	• Initiated consultant contract to support guidance development		**Medium**
Transportation safety information	Educate travelers on the rules of the road to promote understanding of legal rights and responsibilities and how all modes and users can safely and courteously interact with each other.	• Refresh existing and develop new materials on an ongoing basis • Explore new distribution techniques and channels • Disseminate educational and communication materials	• Every intersection is a crosswalk campaign • Other existing materials	1.2A, 1.2B, 1.2C	**Medium**
Work zones	Ensure bicyclists and pedestrians can get through and navigate construction areas or provide alternative routes and clear signage. Ensure that construction outreach communications include information about pedestrian and bicycle route options.	• Incorporate consideration of pedestrians and bicyclists into work zone management plans • Update drawings and guidance around bicycle and pedestrian accommodation in work zones • Partner with Travel Oregon, Oregon Parks and Recreation and others to alert bicycle and pedestrian travelers on route options • Communicate route and detour information	• Drawings, guidance and materials requirements have been updated to reflect bicycle and pedestrian accommodation in work zones	3.2G	**Low**
Level of Traffic Stress	Conduct pedestrian and bicycle connectivity analysis to understand physical, natural, and safety/comfort barriers which create connectivity islands, such as *Level of Traffic Stress* (LTS) *Analysis*.	• Develop LTS analysis procedures and incorporate in ODOT's Analysis Procedures Manual, and update as appropriate • Incorporate direction for LTS analysis in Transportation System Plans (TSPs) and incorporate guidance in the TSP Guidelines update described above • Identify and pursue opportunities to collect and house data (e.g. within a GIS layer) • Consider the application of LTS as a performance measure	• An LTS methodology has been developed for bicycles and pedestrians, and incorporated in the Analysis Procedures Manual • Worked with local communities to support analysis in TSPs	2.2C	**High**