Steering Committee Meeting #3

PREPARED BY: Karen Swirsky, Growth Management Department

DATE: September 19, 2018

Results of Steering Committee 3# September 11, 2018

At the meeting held on September 11, 2018, the Steering Committee had three objectives on their agenda:

1. Approve project goals
2. Approve performance measures for use in scenario evaluation
3. Approve transportation plan scenarios for evaluation

The Steering Committee was able to recommend approval of all three items, with some modifications. The items are attached.

Bend's Transportation Plan Goals

Approved by the Steering Committee on September 11, 2018

Goal Definition

Bend's Transportation Plan Goals define the community's desired outcomes for the transportation system. The Goals will shape the policies and actions in the Plan, and guide the projects and programs that carry out the Plan.

Preamble

The Goals articulated in this document were developed by the Citywide Transportation Advisory Committee (CTAC) after consideration and review of the City Council's articulated goals for CTAC, and through an extensive CTAC-led process of identifying issues and potential solutions from stakeholders in our regional and city transportation systems. CTAC recognizes that the Goals as drafted are not necessarily comprehensive. CTAC acknowledges that there may be additional issues and solutions that should be considered as the project moves forward and CTAC membership learns more about our transportation system, funding options, community interests, and solutions implemented by other jurisdictions. It is the express intent of CTAC through the adoption of the draft Goals that no issue, policy, solution or project should be excluded from CTAC deliberations and recommendations, regardless of whether the issue, policy, solution or project is specifically identified in the current CTAC-adopted draft Goal.

Goals

Increase System Capacity, Quality, and Connectivity for All Users (e.g. drivers, walkers, bicyclists, transit riders, mobility device users, commercial vehicles, and other forms of transportation)

- Increase route choices and connections for all users
  - Roads: increase capacity and efficiency
  - Sidewalks: increase access and connectivity
  - Bicycle facilities: increase total miles of bike routes/facilities
  - Transit: increase transit participation
- Use technology to enhance system performance, including accessible technology (i.e. audible signals)
- Increase the number of people who walk, ride a bike and/or take transit
- Provide reliable travel times for commuters, emergency vehicles, and commercial users
- Minimize congestion
- Reduce vehicle operating and maintenance costs due to poor pavement conditions
- Emphasize asset management

Ensure Safety for All Users

- Reduce serious injuries and fatalities
- Maximize safe routes within and between neighborhoods and throughout the community for all users
- Design and build facilities and routes that maximize safety for pedestrians and bicyclists
- Ensure safe speeds

Approved by Steering Committee – September 11,2018

Facilitate Housing Supply, Job Creation, and Economic Development to Meet Demand/Growth

- Build new roads and upgrade existing roads to serve areas targeted for growth (prioritized opportunity and expansion areas) and job creation
- Provide access and connectivity to expanded housing supply
- Improve connectivity and route choices for commercial users

Protect Livability and Ensure Equity and Access

- Incorporate a complete streets approach for all new road projects and road reconstruction
- Increase Safe Routes to Schools
- Ensure that all income levels and abilities have access to the transportation option that best meets their needs
- Encourage the use of roads for their stated classification
- Keep through freight traffic on ODOT facilities

Steward the Environment

- Minimize the impacts of transportation system on natural features
- Minimize the impacts of system on air and water quality and noise
- Reduce carbon emissions from transportation

Have a Regional Outlook and Future Focus

- Coordinate and partner with other public and private capital improvement projects and local/regional planning initiatives
- Create a system that is designed to implement innovative and emerging transportation technologies

Implement a Comprehensive Funding and Implementation Plan

- Identify stable, equitable, adequate and achievable funding for transportation programs and projects
- Ensure that the financial plan and investment priorities are transparent, understandable, and broadly supported by the community
- Produce a funding plan that includes contributions from residents, visitors, and businesses and that delivers benefits to all users and geographies equitably and in a timely manner
- Include performance measures/benchmarks and a formal process to periodically assess progress to-date and adjust or update the plan as needed
- Achieve financial stability

TRANSPORTATION PERFORMANCE MEASURES FOR EVALUATING SCENARIOS

Approved by the Steering Committee – September 11, 2018

PROJECT GOALS	RECOMMENDED PERFORMANCE MEASURES	APPLICATION	EXAMPLE OUTPUT
Increase System Capacity, Quality, and Connectivity for All Users	Demand to Capacity Ratio (congestion)*	• Differentiate between planning scenarios • Monitoring program	• *Planning scenarios:* Travel demand modeling tool used to predict where roadway segments or study intersections are at, near, or over capacity. Future alternatives would be compared to future "no build" scenario to see how ratios change. • *Monitoring:* Uses data collection program to monitor demand to capacity changes over time
	Sidewalk System Completeness	• Differentiate between planning scenarios • Monitoring program	• *Planning scenarios:* Identification of priority routes and type of facility proposed • *Monitoring:* Track progress towards sidewalk completeness
	Bicycle System Level of Traffic Stress	• Differentiate between planning scenarios • Monitoring program	• *Planning scenarios:* Identification of where comfortable bicycle routes exist, priority routes for improvement, and type of facility proposed • *Monitoring:* Track progress towards bicycle completeness
	Completeness of low-stress network	• Differentiate between planning scenarios • Monitoring program	• *Planning scenarios:* Identification of key low-stress bicycle routes and facilities • *Monitoring:* Track the completion of the planned low-stress network

PROJECT GOALS	RECOMMENDED PERFORMANCE MEASURES	APPLICATION	EXAMPLE OUTPUT
Ensure Safety for All Users	Reported fatal and injury crashes*	• Monitoring program *Note: Upcoming Transportation Safety Action Plan (TSAP) will identify specific safety projects*	• *Monitoring:* Reported fatal and injury crashes per year at study intersections or roadway segments
	Reported Crashes by Mode	• Monitoring program *Note: Upcoming Transportation Safety Action Plan (TSAP) will identify specific safety projects*	• *Monitoring:* Reported crashes over time citywide, along specific corridors, facility types, at specific locations, and by mode
	Qualitative Assessment of Predicted Crash Rates	• Differentiate between planning scenarios	• *Planning scenarios:* Identification of historical crash performance of various scenario features. (e.g., consideration of crash rates on 3-lane vs. 5-lane roadway corridors, potential benefits of grade-separated crossings, etc.) Information will be available when considering scenario performance.
Facilitate Housing Supply, Job Creation, and Economic Development to Meet Demand/Growth	Vehicle Hours of Delay*	• Differentiate between planning scenarios • Monitoring program	• *Planning scenarios:* Travel demand modeling tool used to predict vehicle hours of delay experienced by users. Future alternatives would be compared to future “no build” scenario to see how delay is changed • *Monitoring:* Uses data collection program to monitor delay along specific corridors
	Peak Hour Vehicle Miles Travelled on Rural Facilities (diversion)	• Differentiate between planning scenarios	• *Planning scenarios:* Travel demand modeling tool used to identify where travel demand increases on/diverts to rural facilities

PROJECT GOALS	RECOMMENDED PERFORMANCE MEASURES	APPLICATION	EXAMPLE OUTPUT
	Travel Time Reliability* (Application requires scope of work modification)	• Differentiate between planning scenarios • Monitoring Program	• *Planning scenarios:* ODOT maintained tool to assess the reliability on travel times on major corridors. If travel times can be confidently predicted, drivers can plan their trips to arrive on time. Travel time reliability is especially important for freight and public transportation. Future scenarios would be compared to the future "committed" scenario to see if travel times are maintained or improved. • *Monitoring:* Use data collection program or secure data from private vendors to monitor reliability along specific corridors.
Protect Livability and Ensure Equity and Access	Measure performance through equity lens such as poverty, race, age, and disability	• Differentiate between planning scenarios • Monitoring program	• *Planning scenarios:* Provide a "populations served" rating for projects based on existing demographics information and travel model flow information • *Monitoring:* Annual report card on transportation system to various populations
	Percentage of vulnerable populations within ¼ mile of sidewalks, bicycle facilities, or transit	• Differentiate between planning scenarios • Monitoring program	• *Planning scenarios:* Measure proximity of vulnerable populations to multimodal facilities • *Monitoring:* Track changes to access over time.
	Employment accessibility (ex. Number of jobs that the majority of Bend residents can reach, within a reasonable timeframe. This is calculated for each mode.)	• Differentiate between planning scenarios • Monitoring program	• *Planning Scenarios*: Measure how well the transportation system enables residents to get from home to work, for whichever mode they choose to use. • *Monitoring*: Track how employment accessibility is improved over time, based on land use, demographic, and transportation changes
	Percentage of collector roads with an ADT above 4,000	• Differentiate between planning scenarios • Monitoring program	• *Planning Scenarios:* Identify collectors roads carrying more traffic than anticipated in future scenarios. • *Monitoring:* Track collector traffic volumes over time.

PROJECT GOALS	RECOMMENDED PERFORMANCE MEASURES	APPLICATION	EXAMPLE OUTPUT
Steward the Environment	Vehicle Miles Traveled Per Capita*	• Differentiate between planning scenarios • Monitoring program	• *Planning scenarios:* Travel demand modeling tool used to estimate number and length of trips per capita. Future alternatives would be compared to future "no build" scenario to evaluate how number of trips and miles driven change. • *Monitoring:* Uses data collection program to monitor miles driven over time
Have a Regional Outlook and Future Focus	Arterial Roadway Miles with Demand to Capacity Ratio Deficiencies	• Differentiate between planning scenarios • Monitoring program	• *Planning scenarios:* Travel demand modeling tool used to estimate arterial roadway performance. Future alternatives would be compared to future "no build" scenario to evaluate how performance along arterials changes. • *Monitoring:* Uses data collection program to monitor congestion along arterials over time.
	Potential for alternative funding sources	• Differentiate between planning scenarios	• *Planning scenarios:* Qualitative assessment of different funding sources that may be made available by the project types for each scenario.
	Mode Split*	• Differentiate between planning scenarios • Monitoring program	• *Planning scenarios:* Travel demand modeling tool will provide estimate of mode split for each scenario. • *Monitoring:* Annual reporting measure that identifies drive along, shared ride, walk, bike, and transit trips.

PROJECT GOALS	RECOMMENDED PERFORMANCE MEASURES	APPLICATION	EXAMPLE OUTPUT
Implement a Comprehensive Funding and Implementation Plan	Cost	• Differentiate between planning scenarios	• *Planning scenarios:* Planning level cost estimates for individual projects and scenario packages. Include estimate on maintenance costs.
	Roadway Lane miles	• Differentiate between planning scenarios	• *Planning scenarios:* Lane miles are intended as an indicator of demand for maintenance. Future alternatives would be compared to the future “no build” scenario.

*Recommended measures that are part of MPO planning requirements

Table 1. Projects to Include in Scenario A

SCENARIO A: Build New Corridors • Construct new roads • Extend existing roads • Add new crossings of system barriers such as the Parkway, railroad, or river • Add key regional multiuse paths and connections	**Number**	**Project**	**Need**
	A-1	Hawthorne Avenue Grade-separated Crossing at US 97/Railroad	Barriers for bicyclists & pedestrians through central Bend
	A-2	Cooley Road Extension (between 18th Street and Deschutes Market Road)	East-West Corridor Congestion
	A-3	Ponderosa Street/China Hat Road Overcrossing of US 97	East-West Corridor Congestion
	A-4	South River Crossing (between Century Drive and US 97), note that the Scenic River Boundary is approximately 1-mile north of the southern UGB limits.	East-West Corridor Congestion
	A-5	US 97/Empire Avenue Southbound off-ramp	US 97 Corridor Capacity/Safety (Empire to Cooley)
	A-6	US 97 North Parkway Extension (from Grandview Drive to US 97), including all improvements in the FEIS	US 97 Corridor Capacity/Safety (Empire to Cooley)
	A-7	US 97 North Interchange with connection to 18th Street	US 97 Corridor Capacity/Safety (Empire to Cooley)
	A-8	Powers Road/US 97 Interchange	US 97 Corridor Capacity/Safety (Murphy to Empire)
	A-9	US 97/Murphy Road Frontage Road	US 97 Corridor Capacity/Safety (Murphy to Empire)
	A-10	US 97 Pedestrian Overcrossing at Badger Road	US 97 Corridor Capacity/Safety (Murphy to Empire)

	A-11	3rd Street Multi-Use Path (between Empire Avenue and Grandview Drive)	US 97-Hwy 20 Triangle Pedestrian & Bicyclist Access
	A-12	Pedestrian/Bicycle Overcrossing of US 20 near Robal Road	US 97-Hwy 20 Triangle Pedestrian & Bicyclist Access
	A-13	US 20 Multi-Use Path (between Cooley Road and Old Bend-Redmond Highway)	US 97-Hwy 20 Triangle Pedestrian & Bicyclist Access
	A-14	Pedestrian/Bicycle Overcrossing of US 97 near Robal Road	US 97-Hwy 20 Triangle Pedestrian & Bicyclist Access
	A-15	Trail connection from Colorado Avenue towards Division Street	Colorado Interchange Area Capacity & Ped/Bike Access
	A-16	Reed Market Road Railroad Overcrossing	Reed Market Congestion & Safe Crossings (4th to 27th)
	A-17	Aune Road extension to 3rd Street	Colorado Interchange Area Capacity & Ped/Bike Access
	A-19	Extend Wilson from 15th to Pettigrew	East Connectivity
	A-21	Grade separate rail crossings at Revere, Wilson, Reed Market, Country Club	East-West Corridor Congestion

Note: Coordinate testing of US 97 improvements with the US 97 Parkway Corridor Plan Evaluation

Table 2. Projects to Include in Scenario B

SCENARIO B: Widen and Enhance Existing Corridors • Widen existing roads, intersections, and bridges • Add or improve walking and bicycling facilities along and across existing regional corridors	**Number**	**Project**	**Need**
	B-1	Greenwood Avenue protected bicycle facilities (between Wall Street and Hill Street)	Barriers for bicyclists & pedestrians through central Bend
	B-2	Revere Avenue bicycle facilities (between Wall Street and 6th Street)	Barriers for bicyclists & pedestrians through central Bend
	B-3	Wilson Avenue protected bicycle facilities (between 4th Street and US 97)	Barriers for bicyclists & pedestrians through central Bend
	B-4	US 20 protected bicycle facilities (from 3rd Street to 27th Street)	Barriers for bicyclists & pedestrians through central Bend
	B-5	Protected bicycle undercrossing of US 97 at Franklin Avenue	Barriers for bicyclists & pedestrians through central Bend
	B-6	Protected bicycle undercrossing of railroad at 3rd Street	Barriers for bicyclists & pedestrians through central Bend
	B-7	Reed Market Road widening (from Century Drive to Bond Street)	East-west Corridor Congestion
	B-8	Colorado Avenue widening (from Simpson Avenue to Arizona Avenue)	East-west Corridor Congestion
	B-9	US 97/Robal Road intersection capacity improvements	US 97 Corridor Capacity/Safety (Empire to Cooley)
	B-10	US 97 southbound auxiliary lane (from Empire Boulevard to Butler Market Road)	US 97 Corridor Capacity/Safety (Murphy to Empire)
	B-11	Butler Market Road widening (from US 97 to Deschutes Market Road) with roundabout at Wells Acre Rd	Butler Market Corridor Capacity and Safety Needs (US 97 to 27th)
	B-12	Empire Boulevard widening (from Boyd Acres Road to Butler Market Road)	Butler Market Corridor Capacity and Safety Needs (US 97 to 27th)
	B-13	Neff Road protected bicycle facilities and enhanced crossings (from 8th Street to Purcell Boulevard	Neff Corridor Safety (8th to Purcell)

	B-14	Greenwood Avenue enhanced crossings (from 3rd Street to 8th Street)	Greenwood Corridor Pedestrian/Bicyclist Safety)
	B-15	Reed Market Road widening and enhanced pedestrian and bicyclist facilities (from Bond Street to 3rd Street)	Reed Market Congestion (Bond to 4th)
	B-16	Reed Market Road widening and enhanced pedestrian and bicyclist facilities (from 3rd Street to 27th Street)	Reed Market Congestion and Safe Crossings (4th to 27th)
	B-17	Corridor Improvements to 15th Street between US 20 and Knott Road, including protected bike/ped facilities and roundabouts at key intersections	15th Street Capacity and Safety at major intersections (Knott to Wilson)
	B-18	27th Street-Knott Road widening to 5 lanes (from US 97 to US 20)	15th Street Capacity and Safety at major intersections (Knott to Wilson), East-West Corridor Congestion
	B-19	Hamby Road widening (from Stevens Road to Butler Market Road), including a roundabout at US 20	27th/US 20 and Hamby/US 20 Capacity and Safety
	B-20	US 20 roundabout at Cook/Tumalo	US 20 West Rural Crossing Capacity and Safety
	B-21	US 20 roundabout at Old Bend-Redmond Highway	US 20 West Rural Crossing Capacity and Safety
	B-22	27th Street widening (from Neff Road to Butler Market Road)	27th Street capacity
	B-23	Portland Avenue intersection improvements	Congestion and traffic operations
	B-24	Protected bicycle facility on Bear Creek Road	Safety and capacity
	B-25	Widen Bond/Reed Mkt roundabout (partial two lane)	Bond/Reed Mkt roundabout capacity
	B-26	Widen railroad undercrossing on Brosterhous	Bicycle and pedestrian access on Brosterhous
	B-27	Provide dedicated left turn lanes on Reed Market at 3rd Street – possibly through widening or a road diet	Capacity on Reed Market Road
	B-29	Widen 3rd St to 4 lanes under the railroad, including complete street design	3rd Street Capacity (Greenwood to Wilson)

	B-30	Protected bike/ped routes on Century Drive	Safety and Capacity
	B-31	Portland Ave-Olney Ave protected bicycle facilities (College Way to 8th St)	Barriers for bicyclists & pedestrians through central Bend

Table 3. Projects to Include in Scenario C

SCENARIO C: Maximize the Existing Transportation System • Increase bus service along key corridors within Bend, enhance connections to other cities in the region, and make connections to transit easier for more people (first/last mile solutions) • Improve traffic signals and manage US 97 Parkway access to make the system flow better during peak hours • Implement Transportation Demand Management (TDM) programs	**Number**	**Project**	**Need**
	C-1	Greenwood Avenue road diet (from Bond Street to 3rd Street)	Barriers for bicyclists & pedestrians through central Bend
	C-2	High-capacity transit on the Newport-Greenwood corridor, with mobility hubs at COCC, downtown, and St. Charles, including improved transit connections from neighborhoods to HCT stops	East-West Corridor Congestion
	C-3	3rd Street high-capacity transit with mobility hubs near Robal Road, downtown Bend, and Murphy Road	US 97 Corridor Capacity/Safety (Empire to Cooley)
	C-4	US 97 access management (from Cooley Road to US 20)	US 97 Corridor Capacity/Safety (Empire to Cooley)
	C-5	US 97 access at Hawthorne Avenue closure	US 97 Corridor Capacity/Safety (Murphy to Empire)
	C-6	Enhance bicycle and pedestrian facilities: Robal and Hunnel corridor	US 97-Hwy 20 Triangle Ped/Bike Access
	C-7	Butler Market Road intersection capacity improvements	Butler Market Corridor Capacity and Safety Needs (US 97 to 27th)
	C-8	Implement transit service options along Butler Market from downtown into the NE UGB expansion area	Butler Market Corridor Capacity and Safety Needs (US 97 to 27th)
	C-9	US 97 northbound/Colorado Avenue traffic signal	Colorado Interchange Area Capacity and Ped/Bike Access

	C-10	Reduce turn movements at the Reed Market Road/US 97 northbound ramps	Reed Market Congestion and Safety (Bond to 4th)
	C-11	Convert Wall Street to a southbound one-way between Bond and Newport with free right-turn at Wall/Bond and roundabout at Wall and Lafayette*	Congestion and traffic operations
	C-15	Road diet on Wall and Bond with parking protected bicycle facilities	Bike access to downtown
	C-21	Traffic signal priority for freight and transit at signalized intersections on 97	US 97 Corridor Capacity/Safety (Empire to Cooley)
	C-22	Close at-grade US 97 connections and install on-ramp metering	US 97 Corridor Capacity/Safety (Murphy to Empire)
	C-23	Evaluate one-way streets on Newport and Portland	General System Capacity
	C-24	Relocate the BNSF railroad switch yard from near Reed Market Road to outside of Bend	East-West Corridor Congestion
	Programs and projects that are not mapped		
	C-12	Sign the route from US20 to US97 to continue on 3rd St to Division ramp instead of Empire or provide traveler info.	Congestion and traffic operations
	C-13	Mobility Hubs (access to transit, bike share, car share, etc.) at key gateways and activity centers	Transit Service to Outlying Areas
	C-14	Enhanced transit service to Sunriver/La Pine,Tumalo/Sisters, and Redmond, connecting to Mobility Hubs	Transit Service to Outlying Areas

	C-16	TDM program for major employers and institutions	Manage Congestion
	C-17	Reduce speed limit to 20 mph on key routes leading to & within downtown to improve safety for all users	Barriers for bicyclists & pedestrians through central Bend
	C-18	Increase transit service frequency to 10-min headways on major corridors	East-West Corridor Congestion
	C-19	Improved traffic signal coordination on signalized corridors, including freight and transit signal priority on designated corridors	East-West Corridor Congestion
	C-20	Parking pricing in Downtown Bend	Demand management