MEETING AGENDA

Steering Committee Meeting #4

MEETING DATE: Wednesday, January 30, 2019
MEETING TIME: 9:00 a.m. – 1:00 p.m.
LOCATION: Council Chambers, Bend City Hall

Objectives

- Approve Initial Funding Assessment
- Approve Citywide Transportation Framework

Agenda

1. **Welcome and Introductory Agenda Items (15 min)**

a. Welcome and convene meeting (Mayor Russell)

b. Approval of previous minutes (Joe Dills, facilitator)

c. Public Comment – General comments. Please note time is provided in the agenda for comments specific to the proposed action items. (Mayor Russell)

2. **Overview and Framing (5 min) –** Overview of agenda and actions requested, and how today's decisions fit into the Bend Transportation Plan update. (Joe)

3. **Initial Funding Assessment (action item – 80 min)**

CTAC recommends and requests approval of the Initial Funding Assessment (IFA). Please see packet materials for recommendations.

a. Recommendation and comments by the CTAC Co-Chairs

b. Staff briefing on the IFA (Emily Eros, Lorelei Juntunen)

c. Steering Committee discussion, refinements to IFA as needed

d. Public comment – IFA specific

e. Steering Committee action

4. **Break/snacks, 10:40 a.m., approx. (10 min)**

5. **Citywide Transportation Framework (action item – 100 min)**

CTAC recommends and requests approval of the Citywide Transportation Framework (CTF). Please see packet materials for recommendations.

a. Recommendation and comments by the Co-Chairs
b. Staff briefing on the Citywide Transportation Framework (Chris Maciejewski, DKS Associates)
c. Steering Committee discussion, CTF refinements as needed
d. Public comment – CTF specific
e. Steering Committee action

6. **Close/next meeting** – Joe Dills

Attachments

- Minutes of previous meeting
- Overview – Initial Funding Assessment & Citywide Transportation Framework
- Initial Funding Assessment
- Citywide Transportation Framework

Accessible Meeting Information

This meeting/event location is accessible. Sign language interpreter service, assistive listening devices, materials in alternate format such as Braille, large print, electronic formats and audio cassette tape, or any other accommodations are available upon advance request. Please contact Jenny Umbarger at jeumbarger@bendoregon.gov or 541.323.8509. Providing at least 3 days notice prior to the event will help ensure availability.

Minutes

Steering Committee Meeting #3

Bend's Transportation Plan

September 11, 2018

City Hall, Council Chambers
710 NW Wall Street, Bend, Oregon

CITY OF BEND

Steering Committee Members

Casey Roats, **Chair** ..... City Councilor/Mayor
Sally Russell, **Vice-Chair** ..... City Councilor/Mayor Pro Tem and Bend Metropolitan Planning Organization (MPO) Policy Board Chair
Barb Campbell ..... City Councilor and MPO Policy Board
Justin Livingston ..... City Councilor (*absent*)
Bill Moseley ..... City Councilor and MPO Policy Board
Bruce Abernethy ..... City Councilor
Nathan Boddie ..... City Councilor (*absent)*
Tony DeBone ..... County Commissioner and MPO Policy Board
Gary Farnsworth ..... Oregon Department of Transportation (ODOT) and MPO Policy Board Vice-Chair
Lindsay Hopper ..... Bend Planning Commission

City Staff
Eric King, *City Manager*
Karen Swirsky, *Senior Planner*
Tyler Deke, *MPO Manager*

Consultants
Joe Dills, *Angelo Planning Group*
Chris Maciejewski, *DKS Associates*

CTAC Members
Mike Riley
Karna Gustafson
Steve Hultberg
Ruth Williamson

1. Welcome and Introductory Agenda Items

Member Roats called the meeting to order at 3:06pm with quorum present.

Mr. Dills presented the agenda overview.

Mr. Dills requested approval of the May 3, 2018 minutes. Member Roats moved for approval. Member Russell seconded the motion, which passed unanimously, (8-0). Members Hopper, DeBone, Farnsworth, Abernathy, Russell, Roats, Campbell and Moseley voted yes.

Mr. Dills and Ms. Swirsky presented the process overview and look-ahead.

Mr. Hultberg presented the purpose and regulations of the Transportation System Plan.

Ms. Williamson presented a review of the Citywide Transportation Advisory Committee work to date.

Mr. Dills opened the floor to public comment, specific to agenda items.

Gavin Leslie, CTAC member, spoke to concerns about VMT management and the TSP.

Scott Reich from Bend Bikes spoke about the need to prioritize both the connectivity and low level of traffic stress for bicycle network planning and performance measures.

2. Project Goals and Performance Measures

Ms. Swirsky presented a review of the open house and poll results.

Mr. Riley presented goal recommendations and comments. The floor opened to discussion between Steering Committee and CTAC members.

Member Farnsworth recommended adding emphasis on asset management as a bullet under 'Increase System Capacity, et al' goal. He recommended quantifying safety statistics by numbers rather than rates and replacing 'injury and fatality rates' with 'injuries and fatalities' in the first bullet point under 'Ensure Safety for All Users'. He recommended replacing 'Reduce speeding' bullet with language around ensuring safe speeds in the 'Ensure Safety for All Users'. Under 'Have a Regional Outlook and Future Focus', Member Farnsworth recommended replacing the word 'test' with 'implement', which results in the ability to omit 'and adopt if successful.' language. He recommended adding language around achievable funding and financial stability to 'Implement a Comprehensive Funding and Implementation Plan'.

Member Moseley recommended safety language not be mode-specific under 'Ensure Safety for All Users'; based on input from CTAC members about the intent of that language, original language was retained. Under 'Protect Livability and Ensure Equity and Access' Member Moseley recommended adding bullets that indicate minimizing cut-through traffic in neighborhoods and limiting through-freight traffic to ODOT facilities. Member Campbell indicated her lack of support for language on cut-through traffic. Discussion resulted in adding a bullet with language indicating encouraging use of roads according to their stated classification, and a bullet to limit through-freight to ODOT facilities.

Member Hopper inquired to measurements regarding 'ensure' language in 'Ensure Safety for All Users'. She supported the language in the context of the goal being aspirational.

Member DeBone proposed replacing the word 'ridership' with 'participation' in the Transit sub-bullet point under the 'Increase System Capacity, et al' goal.

Member Campbell moved to approve the revisions. Member Russell seconded the motion, which passed unanimously, (8-0). Members Hopper, DeBone, Farnsworth, Abernathy, Russell, Roats, Campbell and Moseley voted yes.

Mr. Maciejewski presented a staff briefing on performance measures.

Mr. Riley presented performance measures recommendations and comments.

The floor opened to discussion between Steering Committee and CTAC members.

Member Farnsworth recommended adding a performance measure for freight capacity and connectivity using Travel Time Reliability. He raised concern around the measure for 'Steward the Environment' which led to discussion without change to the measure. Mr. Maciejewski suggested using the results of the Climate Action Steering Committee's transportation sub-group work to inform the measure.

Member Farnsworth recommended adding a measure that qualitatively assesses alternative funding opportunities, and adding cost efficiency rather than just including cost. Member Moseley recommended adding a cost-by-method-per-mile measurement as an alternative. Discussion resulted in adding cost efficiency as a finding rather than a performance measure.

Mr. Dills reviewed results of discussion as follows:

- Travel Time Reliability will be considered the best measure for freight transportation
- Under the Protect Livability and Ensure Equity and Access goal, the team intends to map investments overlaid on census districts
- Adding a measure to indicate qualitative assessment of creating alternate funding sources

Member Farnsworth proposed adding a measure regarding asset management or performance, adopting ODOT's measurement practices. Alternatively, Mr. Maciejewski proposed that lane miles of roadway be used as the measure for maintenance. Steering Committee chose Mr. Maciejewski's option.

Member Campbell moved to approve the revisions. Member Roats seconded the motion, which passed unanimously, (7-0). Members Hopper, Farnsworth, Abernathy, Russell, Roats, Campbell and Moseley voted yes. Member DeBone departed the meeting prior to the vote.

3. Scenarios for the Citywide Transportation Framework Evaluation

Mr. Maciejewski briefed the members on the scenarios.

Mr. Riley presented scenario recommendations and comments.

The floor opened to discussion between Steering Committee and CTAC members.

Member Russell recommended relocation of the railroad switchyard be part of the evaluation; Mr. Maciejewski recommended adding to Scenario C and Mr. Dills clarified the intent is to start the conversation with the railroad.

Member Farnsworth noted the necessity to ensure Bend's TSP is in lockstep with the Parkway Planning effort. He also commented on several items within the scenarios related to work in other organizations, existing regulations, and general considerations, though none of the comments necessitated additions or revisions to the scenarios.

Mr. Dills reviewed the results of discussion as follows:

- Add the relocation of railroad switching yards to Scenario C
- Add language to Scenario A that ensures parkway work is coordinated

Member Campbell moved to approve the three Scenarios for consideration. Member Roats seconded the motion. The motion passed, (5-0). Members Farnsworth, Abernathy, Russell, Roats and Campbell voted yes. Member Moseley abstained. Member Hopper departed the meeting prior to the vote.

4. Funding Work Group Report

Due to time constraints, Mr. Dills suggested the Funding Work Group portion of the meeting be dismissed from the agenda and a follow-up email be provided to the Steering Committee.

5. Close / Next Meeting

Mr. Dills adjourned the meeting at 6:15 p.m. The next meeting will be held in December.

Respectfully submitted,

Jenny Umbarger
Growth Management Department

Bend's Transportation Plan

Overview –Initial Funding Assessment & Citywide Transportation Framework

PREPARED FOR: Steering Committee
COPY TO: Citywide Transportation Advisory Committee
PREPARED BY: Karen Swirsky and Joe Dills
DATE: January 15, 2019

Action Requested by Steering Committee

As described in the agenda packet for the January 30, 2019 meeting, the Steering Committee will discuss, and is asked to approve, two important documents recommended by the Citywide Transportation Advisory Committee (CTAC):

- Initial Funding Assessment
- Citywide Transportation Framework

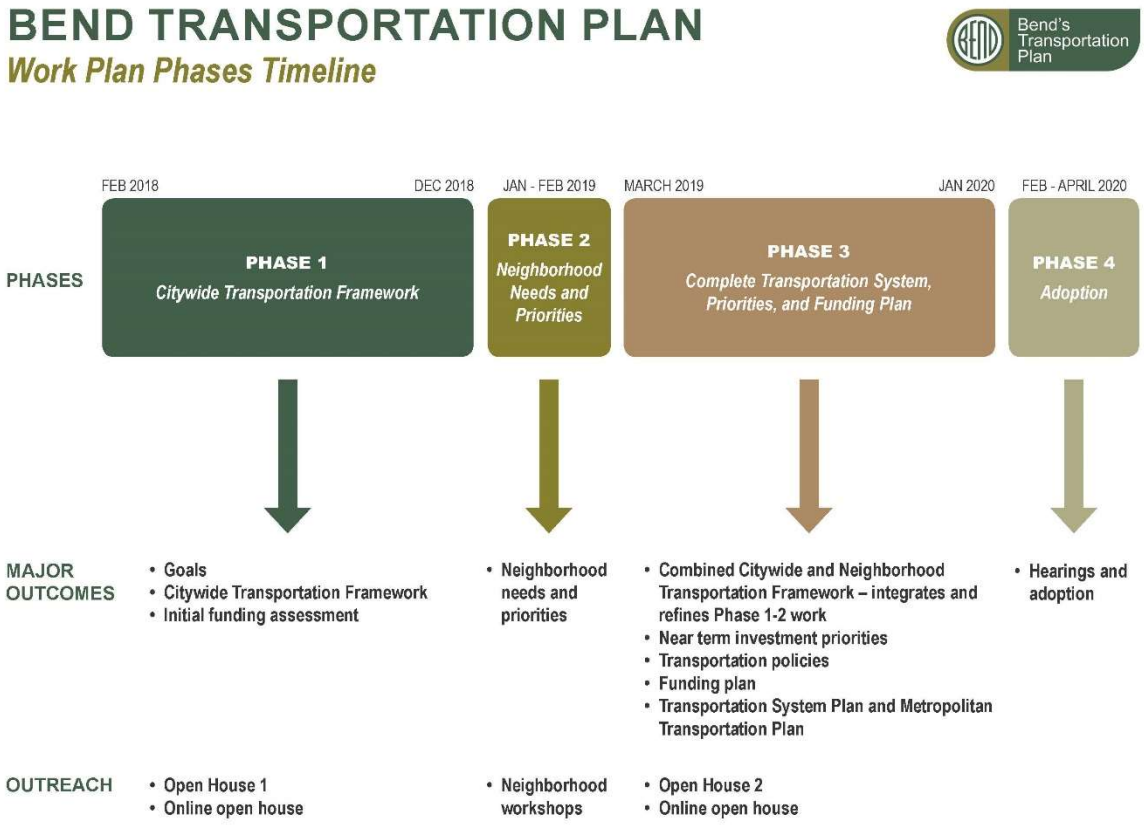
Completing Phase 1 of the Transportation Plan Update

The Steering Committee's action on January 30th will mark an important milestone – the completion of Phase 1 of the Bend Transportation Plan update. Phase 1 created Bend's Transportation Goals (previously approved by the Steering Committee in September 2018), and the Initial Funding Assessment and Citywide Transportation Framework.

These outcomes were accomplished with the hard work and support of CTAC, together with robust input from the Bend community. In sum, there were eight CTAC meetings, four meetings of CTAC's funding subcommittee (the Funding Work Group), a community Open House and concurrent on-line Open House (which generated over 2400 comments), numerous presentations to Neighborhood Associations and other interested groups (i.e. MoveBend, Downtown Business Association), and on-going public information.

The completion of Phase 1 sets the stage for Phase 2. Phase 2 will enhance the Citywide Transportation Framework with neighborhood needs and priorities. In April, CTAC will reconvene to begin Phase 3 – the preparation of the complete transportation system, policies, priorities, and funding plan. The work plan chart on the following page illustrates the phases, major outcomes, and community outreach of the project.

This memorandum briefly summarizes each of the Phase 1 outcomes. Please see the agenda packet for the full recommendations from the Initial Funding Assessment and Citywide Transportation Framework.



Bend's Transportation Plan and Goals

The City's Transportation Plan was adopted in 2000. Much has changed since then – the City has grown considerably, a number of large projects have been completed (Bend Parkway, Healy Bridge, reconstruction of Reed Market), we now have a 4-year university, and the Urban Growth Boundary has been expanded. Updating the Transportation Plan will allow us to reflect the modern City that Bend has become over the last 20 years and to plan for our exciting future. The in-progress transportation plan update anticipates a City of 151,000 by the year 2040.

The Transportation Goals, approved by the Steering Committee in September 2018, are the foundation of the plan update:

- 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)
- Ensure Safety for All Users
- Facilitate Housing Supply, Job Creation, and Economic Development to Meet Demand/Growth
- Protect Livability and Ensure Equity and Access
- Steward the Environment
- Have a Regional Outlook and Future Focus
- Implement a Comprehensive Funding and Implementation Plan

The Initial Funding Assessment

Transportation funding is a challenge everywhere. Federal and state funding is very limited, so communities across the US are looking to local sources to address funding gaps. Additionally, Bend has many transportation needs - both deferred from the past, and, future improvements needed to accommodate the growth of the City. To address these challenges, Bend's Transportation Plan will include a funding plan that lays out strategies and an action plan for the City to fund high-priority projects, programs, and associated maintenance/operations costs. The Initial Funding Assessment is the first step in creating that funding plan.

Over the past 8 months, the Funding Work Group, a subcommittee of 9 members of CTAC, has been working closely with the project team, doing in-depth analysis to answer key questions: What can we learn from past funding plans? How much funding do we think we will have? How much funding do we think we will need? What are some different ways to fill this gap?

The Funding Work Group identified 18 potential funding tools that could be used to generate additional revenues in Bend. They evaluated this menu of funding tools according to five considerations: (1) legality, (2) efficiency, (3) equity, (4) political acceptability, and (5) magnitude of potential revenue. The result was a shortlist of funding tools considered by CTAC to be most suitable for Bend – some of which are substantial enough to be "core" tools, and others that would be "supplemental" tools for specific needs or geographic areas. Once priority projects and programs are determined (in Spring and Summer of 2019), CTAC will evaluate different ways to combine these funding tools – crafting a funding plan that fits Bend's needs and values. The funding plan will aim for balance and resilience, and will be based on a set of core principles stated in the Initial Funding Assessment.

The Citywide Transportation Framework

The Citywide Transportation Framework is a balanced approach to addressing Bend's citywide transportation needs. The Citywide Transportation Framework consists of projects and programs to accommodate Bend's growth to 2040. The recommended projects and programs are consistent with the adopted transportation goals, Bend's Comprehensive Plan, and align with the needs of the Bend Metropolitan Planning Organization (MPO). They are intended to increase capacity and connectivity for all modes, improve safety, complete walking and biking networks, and make the system work more efficiently with technology, better transit service, and travel demand management.

CTAC developed the recommended Citywide Transportation Framework through a multi-step process: (a) a comprehensive evaluation of transportation conditions now and in the future under the current plan; (b) creation of performance measures and scenarios; (c) review of the scenario evaluation results; and (e) identification of the best projects and programs to address the identified needs to meet future needs and implement the project goals. The result is the Citywide Transportation Framework – projects and programs for all modes of travel in the City as a whole. The Citywide Transportation Framework provides the blueprint and context for the next step – identifying neighborhood-level needs. This will be accomplished through the neighborhood workshop series of meetings underway in January and early February. The Citywide Transportation Framework will serve as the basis for the MPO Transportation Plan update and Phases 2 and 3 of the Bend Transportation Plan.

Initial Funding Assessment

An interim report to inform Bend's Transportation Plan

December 2018

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Acknowledgments

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Initial Funding Assessment

Purpose

The City of Bend is updating its transportation plan (the Bend Transportation Plan, or BTP) to identify and prioritize needed transportation system investments. The BTP will define capital projects, programs and policies that add system capacity, improve pedestrian and bicycle mobility and safety, and support new growth. The Plan will also determine operating and maintenance needs. The BTP will include a Funding Plan that describes how the prioritized projects and associated operating and maintenance costs are funded.

This Initial Funding Assessment (IFA) is an interim step in the development of the Funding Plan for the BTP. It documents what the Funding Work Group (FWG)[1] learned and supported through a series of meetings in which they reviewed technical information about existing funding dynamics and new funding tools that could be used to generate additional revenue for Bend's transportation needs. The FWG's draft recommendations were then further refined through input from the Citywide Technical Advisory Committee (CTAC). The IFA informs Bend's ongoing discussion about project prioritization and Funding Plan development. The IFA identifies and evaluates a menu of potential funding and financing tools. It presents initial recommendations about what funding tools and funding strategies are appropriate to include the Funding Plan for the BTP, in addition to the existing funding tools. The purpose of the IFA is to:

- Document FWG discussions and decisions
- Present a preliminary comparison between funding needs[2] and funding capacity from existing funding tools
- Evaluate potential funding strategies for the BTP
- Identify foundational funding principles and tools, which are intended as the strategic direction for the Funding Plan
- Set the stage for further analysis; the strategic direction will be refined and used in 2019 after BTP priority projects and programs are identified and project costs are updated.

The IFA is "initial" because the project team developed this product during the first year of the two-year BTP process. It focuses on preliminary and foundational funding strategies in the form of funding principles and tools. The FWG and project team will revisit and update the findings and recommendations in 2019.

Overview of Analysis

Two primary analyses informed the Initial Funding Assessment: (1) Analysis of existing funding tools – tools that are already generating revenue for the City of Bend's transportation needs and

[1] The Funding Work Group (FWG) advises the Citywide Transportation Advisory Group (CTAC) on transportation funding in Bend. The FWG works collaboratively with and provides guidance to City of Bend staff and the consultant project team as they prepare the Bend Transportation Funding Plan. The ultimate purpose of the FWG is to review, provide input on, and recommend a draft Funding Plan to CTAC.

[2] This initial comparison uses placeholder amounts for funding needs since the BTP process has not yet identified priority projects and programs.

will be available to implement the BTP; and (2) Analysis of funding tools that could be introduced or increased to fund needed transportation projects.

Existing Funding Tools and Need

ECONorthwest worked with City staff to project revenues that could be available from existing funding tools over the analysis period (FY2020 to FY2040). (Appendix D provides methods and more information.) These tools are:

- Surface Transportation Program
- State Highway Fund
- General Fund Subsidy
- Water and Sewer Franchise Fees
- Garbage Franchise Fees
- Transportation System Development Charges
- Other, or Miscellaneous, Tools

> Updated Data
>
> This section and accompanying details in Appendix D update a placeholder projection of existing funding tools and expected funding need that was used in earlier FWG conversations. This update replaces information presented in FWG packet #3 (Appendix C). **Updates are based on input and new information from the City of Bend and the FWG. This feedback allowed the team to modify some key assumptions originally held as proxies.** As a result, readers may see slight differences in numbers included in appendices. We have included footnotes here in the main body of the document to explain these differences where they occur.

One way of thinking about this projection is that it estimates the amount of revenue available for implementation if nothing changes in the future (e.g. no new funding tools, rates remain unchanged, etc.). Combined with an understanding of preliminary capital costs and operating/maintenance costs, the existing tools baseline helped the FWG understand how much additional revenue might be needed to meet Bend's transportation system needs over the analysis period.

Existing funding tools are forecast to generate approximately $582M over the planning period, with approximately $189M (or 33% of the total, see Figure 1 in Appendix D) available for capital costs and approximately $392M (or 67% of the total, see Figure 2 in Appendix D) for operating/maintenance (O&M) costs.

To inform the BTP process with a preliminary understanding of how much additional revenue may be needed, City of Bend staff developed an initial estimate of funding needs for both capital and operating/maintenance expenses. These initial estimates have limitations that will be addressed as the BTP process continues but serve as a starting place for understanding needs. Capital needs are based on cost estimates of unbuilt projects on current adopted plans and lists, such as the fiscally-constrained Transportation System Development Charge (TSDC) project list, the fiscally-constrained Metropolitan Transportation Plan (MTP) project list, and the current Transportation System Plan (TSP), as well as other needs such as deferred maintenance that have become capital needs. In keeping with the existing TSP, this list does not include City funding for needs in Urban Growth Boundary (UGB) expansion areas. However, the FWG will consider this over the winter and spring 2019 (see Appendix C for more details). Maintenance needs were based on the previous funding levels for O&M, with consideration of historic underfunding, the maintenance of new capital projects, and other existing needs. Capital and O&M estimates amounts will be refined in the spring of 2019 as staff and consultants gather additional information and perform additional analysis.

Transit needs, potential revenues, and potential funding tools are not specifically included in the current analysis. The project team noted which funding tools could be used for transit (capital, operations, and/or maintenance) and has kept abreast of potential funding tools, such as revenues from House Bill 2017 and the possibility of special taxing districts included as part of House Bill 2745. Cascades East Transit (CET) is about to begin its regional transit plan, with a specific section focusing on transit in Bend. Needs and funding analysis will be a part of CET's

planning process that will take place in winter and spring of 2019. The City and MPO will closely coordinate with CET to ensure that planning efforts are coordinated and that Bend's Transportation Plan and its Funding Plan are comprehensive of public transit.

While the needs (project costs) remain a placeholder, as a starting place, we anticipate that they may be approximately $412 million[3] for capital uses over the entire planning period. Accordingly, the estimated need for new funding tools is approximately $223M for capital uses (see Exhibit 1). Again, this does not currently include funding needs for UGB expansion areas.

The project team is still refining the gap analysis for operating/maintenance uses. Currently, a working estimate is $17-19 million[4] provides a starting place for O&M funding needs. This estimate does not include any additional O&M due to new capital projects and will be revised in winter/spring 2019. There will likely be a need for new tools to generate revenue for O&M. O&M needs estimates will likely increase as the project team gains new information about additional needs that have been identified by the Streets Department at the City of Bend, but which do not yet have a cost estimate. Moreover, a sizable portion of O&M revenues (approximately 37%) are forecasted to come from General Fund subsidies. If new funding tools were available, these subsidies could be redirected towards other needs, such as public safety. As such, while we have a reasonable starting place estimate for revenue from existing tools that could be available for O&M, it is too early in the process to estimate a funding gap for O&M needs.

Exhibit 1. Analysis of Potential Capital Needs Funding "Gap"

	Capital (FY2020 - FY2040)
Preliminary Estimated Total Funding Need (project costs)	$412,113,000
Forecast of Existing Tools	$189,286,000
Est. need for new revenue tools for capital	**$222,827,000**

* Capital needs include projects on the SDC list, the financially-constrained MTP project list, the Deschutes County ITS plan, and the City of Bend five-year (2018-2023) Capital Improvement Program (CIP). Capital needs do not currently include any projects in the UGB expansion areas, in keeping with the current TSP. This will be considered in more detail in winter/spring 2019.
Source: ECONorthwest. See Appendix D for assumptions and methods.
Notes: Values round all values to the nearest thousand. Forecast of existing tools is in nominal dollars.

Our understanding of funding needs will continue to evolve as the project team refines funding need estimates and/or modifies assumptions. For purposes of the IFA document, this analysis offers a starting place for determining foundational strategies about new funding revenue.

Analysis of New Funding Tools

[3] We based capital costs on information from the City of Bend. In the FWG #3 packet (see Appendix C), we used $450 million as a placeholder for capital funding need. The City of Bend provided this estimate preliminarily for FWG #3, they based on project costs over a FY2018 to FY2040 analysis period. Subsequently, to provide a better starting place for the FY2020 to FY2040 analysis period, the City of Bend updated this analysis by calculating what the capital costs are in FY2018 and FY2019 so that these costs could be subtracted from the total funding need (because they are already funded and should not be included in a gap estimate). Capital costs in these two fiscal years totaled about $37,887,814. So, we subtracted about $37.9 million from the original capital cost estimate of $450 million. This gives us a new estimate for funding need for capital uses (about $412 million) over the FY2020 to FY2040 analysis period. For reference, the capital costs in FY2018 and FY2019 are for the following projects: Murphy, Empire, Neff and Purcell design, Galveston, 14th St, intersection safety improvements in various locations, and bicycle greenways.

[4] We based operating/maintenance costs on information from the City of Bend. In the FWG #3 packet (see Appendix C), we used $10 million (annual) as a placeholder for operating/maintenance need. After FWG #3, the City realized that $10 million did not hit the target of need. The annual O&M over the past 4 years is $15.6 million and the annual O&M over the past 2 years is $17.75 million. A bridge maintenance program and traffic signal program would cost an additional ~$1.3 million per year, putting the total anticipated need at $17-19 million per year (depending whether the 2- or 4- year period is used as a base). Figures depend, in part, on the target for the Pavement Condition Index (PCI). The City will continue to refine this estimate.

We conducted the analysis of new funding tools to provide the FWG with options to generate new revenue over the analysis period. Note that the tools under consideration did not include project-specific tools or potential grants; these types of tools are desirable when available and should be pursued, but they are too specific and uncertain to be factored into Bend's overall funding forecasts and plans. Appendix A and B (packets from FWG Meeting #1 and #2) describe the tools that were considered and provide more information explaining the process for determining which new funding tools are most appropriate in Bend. These considerations included the dimensions of equity, political acceptability, efficiency, legality, and magnitude. Appendix C provides more information explaining the methods and assumptions for projecting revenue capacity of new funding tools.

Updated Data

We updated projections of revenue for a new funding tool (seasonal fuel tax) between the materials provided at FWG #3 (in Appendix C) and this IFA document.

New data regarding fuel sales in Bend for 2017 became available from ODOT to inform our assumptions. This removed the need to estimate how much fuel is sold in Bend, as relied on in the previous forecast.

All other estimates of revenue from new funding tools are unchanged from the information contained in Appendix C.

The new tools that the Funding Work Group recommended for consideration are:

- General Obligation Bond
- Increased Transportation System Development Charges
- Urban Renewal
- Local Improvement District
- Targeted Sales Tax
- Transportation Utility Fee
- Local Option Levy (if used in conjunction with a GO Bond)
- County Vehicle Registration Fee
- Seasonal Fuel Tax

In summary and considering maximum potential revenue capacities over the 20-year analysis period, new funding tools could theoretically generate up to $672.9 million for capital uses and $23.8 million for operating/maintenance uses (see Exhibit 2).

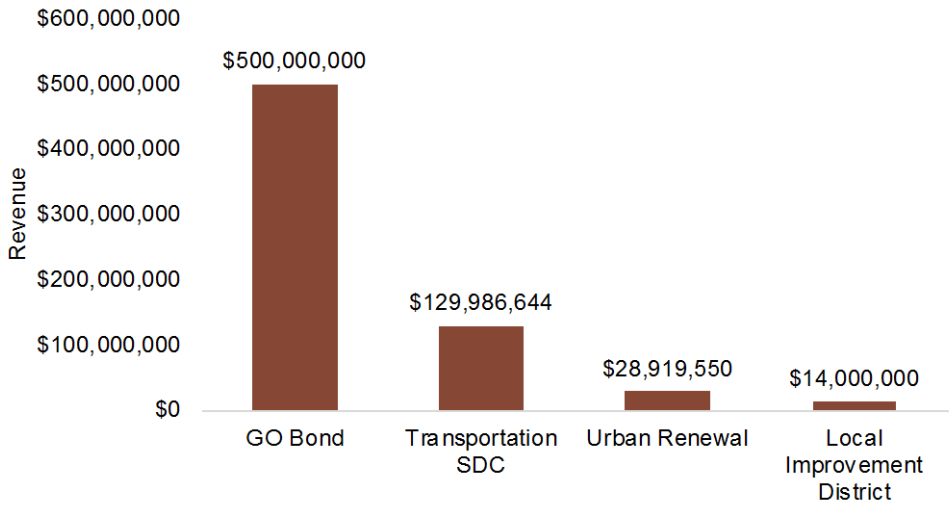
Based on Exhibit 1, the estimated need for new capital revenue produced is $189.2 million and the estimated need for new O&M revenue produced is still being determined (as mentioned previously, there will very likely be a need for new O&M funding tools).

Maximum Potential: Defined

"Maximum potential" means the upper limit of revenue that Bend can generate off a single funding tool. The upper limit is either legally or politically constrained in ways that may make it impractical to achieve, but it does provide useful 'sideboards' for the funding conversation.

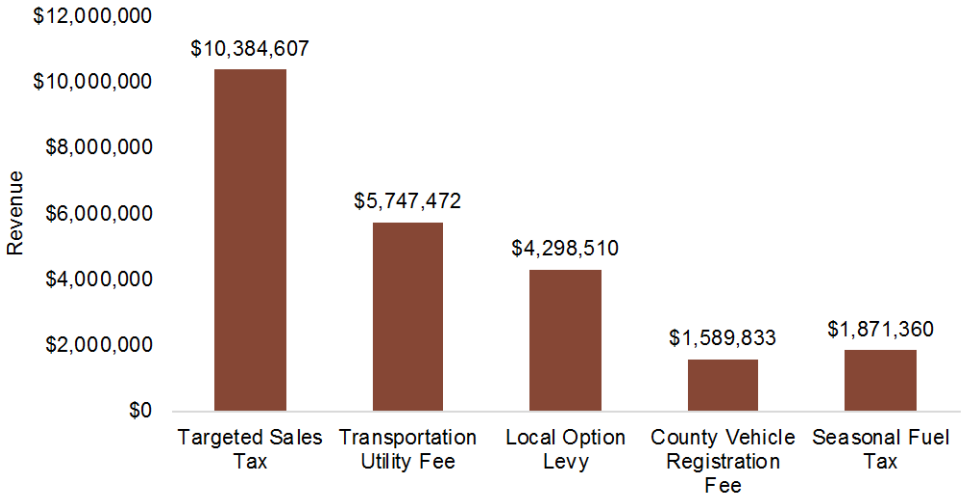
Knowledge of maximum theoretical revenue capacity for each new tool is necessary to know so that the City of Bend understands the limits of each tool. The extent that each tool can contribute to cost is variable, as illustrated in Exhibit 3 and 4.

Exhibit 2. Maximum Revenue Capacity in 2018 dollars, New Capital Funding Tools (FY2020 to FY2040)



Source: Calculated by ECONorthwest.

Exhibit 3. Maximum Potential Revenue Capacity in 2018 dollars, New O&M Funding Tools (annual)



Source: Calculated by ECONorthwest.

The City already has *existing* funding tools to fund about 46% of Bend's capital transportation needs and to meet Bend's operating/maintenance transportation needs based on currently known O&M costs and assumptions about continued general fund availability for O&M needs.[5] This means that while the City will need some new funding tools to cover the projects in the BTP, the City may not need to use all new tools to their maximum theoretical capacity. Further, this analysis shows that the City of Bend does not need to use all nine of the new funding tools under consideration; the City could limit the use of new tools levied or imposed. As such, because maximum revenue capacity for new tools is in excess of the BTP funding need, the

[5] Currently the preliminary analysis of existing funding tools shows a surplus of O&M revenue to cover expenditures. However, the City identified additional O&M needs that do not yet have cost estimates. Once the City allocates these costs, the analysis will likely show a deficit of existing O&M funds. Further, about 37% of O&M revenues derive from General Fund subsidies. The availability of new funding tools could redirect this subsidy towards other needs, such as public safety.

City has some flexibility in determining which funding tools are ultimately selected for the Funding Plan.

Recommendations

This section provides the FWG's initial recommendations regarding the package of funding tools that should be pursued as the project team further develops the Funding Plan for the BTP. The section describes which tools the FWG believes are the best choices for the Funding Plan, which tools need additional study and consideration, and which tools appear less suitable for the Funding Plan.

The FWG began by considering detailed information about 17 potential funding tools and reviewing them according to how well each of the tools performed on four dimensions: legality, equity, efficiency, and political acceptability. Based on these criteria, the FWG developed a shortlist of nine funding tools that seemed most suitable for Bend (these tools are described later in this document and also in detail in Appendix B). These funding tools were targeted for further analysis and discussion.

There are a variety of ways that potential funding tools could be combined to address Bend's transportation funding needs. To provide a sense of how the funding tools could work in practice, and how tools could complement one another, the project team used the nine short-listed (most suitable) funding tools to develop four potential funding "packages". The packages were intended as examples of different approaches to meeting funding needs. Each of the funding packages uses different combinations of funding tools; the composition of each package was determined according to the package's theme: "Users Pay", "Simplicity", "Resilience", and "Balance". These packages are detailed in Appendix C, which includes a description of the advantages and risks of each package and its component tools.

After evaluating these packages, the FWG agreed that two of the four packages are not appropriate or are too risky to serve as the foundation for successful implementation of the BTP. Specifically:

- The "Simplicity" package relies almost entirely on a large General Obligation (GO) bond for capital expenses and a local option levy for operating and maintenance funds. The FWG eliminated this package because they found it too reliant on one payer (Bend's property owners are the ultimate payers of any bonds or levies) and too risky (both tools require a public vote so if one or both tools failed, the City would struggle to implement the BTP).
- The "Users Pay" package was also eliminated. The package intends to have system users, beneficiaries, and new growth as the primary funders; it relies heavily on increases to Transportation System Development Charges (TSDCs), the creation of Local Improvement Districts (LIDs), and the adoption of a Transportation Utility Fee (TUF) to fund new transportation infrastructure. The package does not include a GO bond. While FWG members agreed that Bend's many visitors, commuters, and system users should contribute to funding transportation infrastructure, FWG members were concerned that this package generates insufficient total revenue to cover the initial target project costs. They were also concerned it relies heavily on funding tools that are contingent on new development occurring and on the concurrence of property owners to form LIDs. They pointed out that the timing of availability of revenue from these funding tools could create implementation challenges for early projects.

The FWG appreciated aspects of each of the two remaining packages ("Resilience" and "Balance"). Both packages included funding tools that derive from a range of payers (property owners, new development, visitors to Bend, commuters, and major employers). Both packages include some tools with significant revenue generating capacity and flexibility for use on a wide

range of capital and operating and maintenance (O&M) projects (like a GO bond, a fuel tax, or a TUF). Both packages also include a range of tools that are focused on specific geographies or types of projects (like LIDs and urban renewal).

The principles and recommendations that follow build on the FWG's discussions of the benefits of each of the tools included in the above-referenced packages. Together, these principles and recommendations comprise initial strategies for funding transportation in Bend. They are a set of working conclusions from Phase 1 of the BTP and are subject to update as Bend works toward a Funding Plan in Phases 2 and 3 of the projects in 2019.

Funding Plan Principles

The FWG recommends the following foundational principles for the Funding Plan in the BTP.

- **Intentional Diversification.** Use a range of tools to achieve balance and resilience. The tools that comprise the Funding Plan will be diverse enough to generate revenues that are stable and flexible over the planning period, that generate revenue across economic market cycles, and that fund the full range of project types and programs.
- **Fairness.** Ensure visitors and commuters, new development, existing residents, and businesses (including property tax exempt businesses) pay their fair share for the transportation system that everyone uses.
- **Full Funding for Priority Projects and Associated Operations & Maintenance (O&M).** The Funding Plan in the BTP must generate sufficient capital and operations/maintenance revenue to cover the full life-cycle costs (from initial construction to on-going maintenance) of priority projects (including depreciation), programs, and needed staffing to manage and promote change.
- **Community Buy-in.** The community must broadly support the Funding Plan. Attaining community buy-in for many of the new funding tools, especially those that require a public vote, will require public and stakeholder outreach, polling, an educational campaign, and a balanced approach to crafting the plan.
- **Support Phased Implementation.** The projects described in the BTP will be implemented over a long term (20 years). As such, it will not require all of the funding to be available up front. The Funding Plan in the BTP should provide revenue to match the expected sequence of projects, with an explicit focus on near-term and priority projects.
- **Be flexible and adapt to the future.** Where possible and appropriate, the Funding Plan in the BTP should identify alternate tools (a "Plan B") for those that require public votes or that Bend does not fully control. The Funding Plan should recognize the technologies will change in ways that affect costs and also change the City's ability to monitor use and collect revenues. The Funding Plan should considering funding for innovation and adaptation/inclusion of new technologies that may become available over time.

Recommended Tools

The FWG recommends that the Funding Plan rely on a core set of tools that generate sufficient revenue to flexibly fund a wide range of projects, programs, and O&M costs. In addition, the plan should include a set of supplemental tools that may have more limited revenue capacity but play an important role in funding specific types of projects or projects in specific geographies.

Core Tools

The FWG recommends that the following tools be included as core components of the eventual BTP Funding Plan. These tools provide sufficient funds that can flexibly meet City-wide needs, such that they can reasonably serve as a foundation for the Funding Plan. The FWG recognizes that future discussions about rates and timing of implementation are necessary.

- **GO Bond.** The FWG broadly agreed that a GO bond would be a necessary component of any workable Funding Plan. If approved by voters, a GO bond can provide a large amount of upfront funding for a wide range of priority capital projects. More research is needed to understand the bond amount that voters might support; some members of the FWG suggested that a bond of approximately $100 million is a reasonable starting point.[6] Several members felt that higher bond amounts might be supportable with an attractive mix of projects and well-executed public outreach. The FWG noted that a GO bond must be paired with other core funding tools that can be used for operating and maintenance costs. The FWG expressed serious concern about building new projects without knowing upfront that they will have adequate revenue to cover on-going operations/maintenance over the life of the projects.
- **Transportation Utility Fee (TUF).** The FWG broadly supports the inclusion of a TUF in the Funding Plan. These fees are used to cover transportation costs in many communities in Oregon, can be used flexibly for O&M or capital costs, and can be structured so that even property-tax exempt system users contribute to funding key transportation infrastructure. A public vote is not required to introduce a TUF, although the City could choose to put the TUF to a public vote. More work is needed to determine the recommended rate for a TUF. Some FWG members suggested that the initial estimates of revenue capacity were too low, because higher rates and / or a different mix of payers (households and employees)[7] would be practical.[8]
- **Fuel Tax, with Seasonal Variation.** The FWG agreed that levying a fuel tax (either a seasonal fuel tax or a year-round fuel tax with seasonal variation) is a reasonable tool that should be included in the Funding Plan. Its revenue capacity is relatively high, and a fuel tax can be used broadly for O&M and capital expenses for projects around the city. While it does require a public vote to enact, the FWG felt that including a fuel tax in the package would ease some concerns about voting for a GO bond, because a seasonal fuel tax would be aimed at ensuring that visitors to Bend (and commuters who work in Bend but live outside the City) would contribute to funding improvements to the transportation network along with current residents and property owners. More work is needed to consider how to approach this tax and to evaluate potential rates. As one example, the FWG discussed a rate of $.03 per gallon in off-seasons and shoulder seasons, and $.05 per gallon in peak season.[9] For the purposes of revenue forecasts, the analysis uses a maximum rate of $10 per household and $2 per employee. Additional scenarios that the FWG considered are included in Appendix C; higher rates could increase the potential revenue. Further analysis and refinement is needed once CTAC has developed a list of priority projects and needs.

Other Core Funding Tools that Require Additional Exploration

The FWG agreed that two other tools (an increase in TSDCs and a food and beverage sales tax) should be further explored in the coming months as core tools. Some members of the FWG

[6] For a house with an assessed value of $400,000, annual payments in the first year for a $100M bond would be between $255 and $314, depending on loan terms. See Figure 27 on page 77 of Appendix C for details.

[7] In FWG Packet #3, three approaches to calculate revenue capacity are displayed: (1) rates of $2, $5, and $10/month levied on households and businesses, (2) rates of 2, $5, and $10/month levied on households and employees, and (3) rates of $0.10, $0.25, $0.50, and $1 per month levied on daily trips generated. Rates to determine initial revenue capacity estimates are based on the second approach and two placeholder rates: $10 per household and $2 per employee.

[8] Details of the TUF projections under various scenarios are included on page 79 of Appendix C. They range from about $400,000 up to almost $11M, depending on approach and rates used. FWG members' comments suggest that that higher end of this range may be possible.

[9] This would increase revenue projections from the $1.2M described in FWG packet #3 to $1.9M. See page 71 of Appendix C for details on the original analysis. Note that the project team has recently also received updated information regarding Bend's fuel sales that will further increase revenue projections. This new data will be included along with updated revenue projections in the BTP Funding Plan.

had concerns or questions not yet fully resolved. These concerns and questions will require further consideration. The concerns are described below.

- **Increased TSDCs.** Unlike other tools described in the recommendations, the City already has a TSDC, and it is included in the estimate of existing sources. Regarding increasing those existing TSDC, several FWG members supported increases in TSDCs, over time, as a straightforward, City-controlled tool with substantial revenue capacity that is intended explicitly to fund growth. At the same time, others noted that TSDC revenues are volatile because they are dependent on new development (and therefore are subject to development cycles), that TSDCs were recently increased by 34% and that further increases may affect development feasibility and housing costs. They also pointed out that increases in City-wide TSDC rates might reduce the ability of the City to consider supplemental TSDCs (i.e. higher TSDC rates) as a funding tool in the Urban Growth Boundary (UGB) expansion areas where there may be a clearer nexus to new development and greater support from developers.[10] Further information and discussion are needed regarding supplemental TSDCs as a potential funding tool for expansion and/or opportunity areas.

  CTAC also emphasized that potential increases to citywide TSDC would need more information and further discussion.

- **Food and Beverage Sales Tax.** FWG members supported, in concept, the inclusion of a prepared food and beverage tax that generates revenue through the tourism economy. However, most members expressed concerns about describing and justifying the tool to voters who must approve it. Some felt that it would be challenging to communicate the logic or linkage between levying a sales tax on food/beverages and using that revenue for transportation projects. Some felt that a vehicle fuels tax was a more straightforward path toward getting voter approval for a tool that increases revenue generated by Bend's many visitors.

Supplemental Tools

The FWG recommends the following tools to supplement the core tools described above. Each could play a niche supporting role in a complete funding package, and the City should continue to evaluate them as more is known about specific projects and costs.

- **Urban Renewal.** The FWG broadly agreed that urban renewal should be used to fund appropriate transportation projects in a potential new Urban Renewal Area (URA) in Bend's core area. In that geography, it will be among the most powerful tools available for funding infrastructure. However, because urban renewal dollars can only be spent inside a URA boundary, and only on projects that are identified in an adopted urban renewal plan, this tool is limited in application and better suited to supplement core tools in the Funding Plan.
- **Local Improvement District (LID).** The FWG agreed that LIDs should be part of the Funding Plan and recognized that they are best suited to funding infrastructure needs in UGB expansion areas, opportunity areas, and for neighborhood-focused walkability improvements. Because they require property owners to agree to them (and typically initiate them), broad geographic application of a LID is not likely to be successful. LIDs also carry an administrative burden and may require additional staff to support implementation.
- **County Vehicle Registration Fee.** Use of this tool is contingent on Deschutes County's willingness to pursue and impose a vehicle registration fee that will ultimately need to be approved by voters by a county-wide vote, which adds substantial risk to the certainty of this tool. However, FWG members felt there was real merit to exploring the County's willingness

[10] This kind of area-specific SDC is often called a 'supplemental SDC' and is used to fund the specific infrastructure needed to allow development to occur in that area. They are often negotiated with developers and property owners as part of master plan agreements for UGB expansion areas in Oregon.

to use this fee, particularly as a regional tool to support projects on Highway 97 that have regional significance because they enhance services and/or fix problems for all residents in Deschutes County.

- **Local Option Levy.** The group identified a local option levy as a valuable tool to catch up on deferred street maintenance needs for all modes and viewed it as a valuable tool for one-time use (rather than for new capital or for ongoing O&M). Because it must be regularly renewed with a public vote, the FWG expressed concerns about using this tool as an ongoing revenue source throughout the 20-year implementation period. Clear messaging would be important for this tool to ensure that the public understands what it includes and how it is different from a GO bond.
- **Parking fees.** While the FWG broadly supported the use of parking fees to manage parking demand, the group did not recommend parking fees as a near-term funding source because its revenue generating capacity relative to other tools was less certain and smaller. The broader CTAC, however, was divided on this outcome, with a small majority (11 to 9) voting to keep parking fees as a potential supplemental funding tool. The CTAC's vote means that additional analysis will be completed better understand the revenue generating potential and the role that parking fees could play in a funding strategy. CTAC also acknowledged that parking fees may be considered later as a potential policy tool for transportation demand management.

While there are still many unknowns, collectively, the FWG recommendations point toward this eventual Funding Plan structure:

- A GO bond, perhaps paired with a phased City-wide TSDC increase or a TUF, would provide foundational revenue for City-wide capital costs, and are especially suited to large and highly visible projects that enhance system-wide service. These tools could then be paired with some combination of a TUF, seasonal fuel tax, and perhaps a prepared food and beverage tax to provide additional capital revenue and provide operating and maintenance funding.
- For specific geographies that need targeted investments (such as UGB expansion areas[11], opportunity areas, or parts of the City that need sidewalk investments), urban renewal, LIDs, and supplemental TSDCs are an option.
- A county vehicle registration fee could serve regional needs and a local option levy could serve targeted O&M needs serving all modes, especially for catching up on deferred maintenance projects.

The analysis completed to date suggests that the new funding tools in such a funding package, if successfully passed by voters and/or the City Council and combined with existing funding tools, would likely have sufficient total revenue capacity to cover both capital and O&M costs (though some tools would have to be stretched to their maximum revenue potential)[12]. Such a package would also be responsive to the other foundational principles that FWG discussions highlighted.

In addition to core and supplemental funding tools, the FWG affirms that the City and MPO should consider and pursue project-specific local and / or federal grants as applicable. This includes potential public and private funding that could fund capital, O&M, innovation, pilot projects, and other programs. CTAC affirmed this notion and emphasized that, if federal or other

[11] UGB expansion areas are not currently included as part of the funding needs, but this will be considered in winter/spring 2019 and may change.

[12] Note that transit needs, and funding will be considered as part of CET's regional planning process, which is currently set to take place in winter/spring of 2019. The Bend component of CET's planning will be included in Bend's Transportation Plan and funding needs and potential tools will be reflected in the Funding Plan.

grants are pursued for specific projects, the City may need to have matching funding available. The FWG also recognizes that there may be other tools on the horizon that may not be feasible or practical now, such as vehicle-miles-traveled- (VMT) based fees.

Arriving at the Recommendations

The Initial Funding Assessment recommendations are the product of an iterative process involving technical analysis and FWG input during a series of meetings, described below. The FWG discussed and provided input on revenue projections (existing and new tools), approaches to funding, and funding packages comprised of various tools. Ultimately, these discussions helped to form the foundation of Initial Funding Assessment (IFA) and its recommendations.

Funding Work Group Meeting #1

Funding Work Group Meeting #1 took place on June 7, 2018. The following provides a summary of the technical content and meeting outcome.

Summary of Technical Content

The first meeting of the FWG included an overview about the landscape and challenges of transportation funding at the federal, state, and local levels (including transportation system development charges), as well as a review and discussion of Bend's previous transportation funding plans. The FWG also reviewed information about a variety of potential funding tools and discussed potential evaluation methods and criteria for comparing funding tools. See Appendix A for details.

Meeting Outcome

The group agreed that the broad criteria of efficiency, legality, equity, and political acceptability would be suitable dimensions to compare new funding tools, and that it would be most helpful if this information were presented through a visualization as well as a descriptive table. The staff and consultant team prepared the packet and materials for Meeting #2 according to these decisions.

Funding Work Group Meeting #2

Funding Work Group Meeting #2 took place on July 24, 2018 and was focused on identifying the new funding tools that are best suited to use in Bend.

Summary of Technical Content

AT FWG #2, the project team discussed individual funding tools and evaluation criteria, provided direction on tools to focus on / eliminate, and provided input about packaging funding options.

First, the consultant team presented a menu of 17 funding tools for the FWG to consider as opportunities to pay for projects and programs identified in Bend's Transportation Plan (see sidebar to the left). Appendix B, Funding Workgroup Packet #2, shows a matrix of these 17 funding tools with accompanying technical details.

Menu of New Funding Tools

The original 17 funding tools under evaluation were: general fund allocations, room tax, **transportation system development charges**, **utility franchise fees,** business fee, parking fee, **local improvement districts, general obligation bonds, local option levy, urban renewal, transportation utility fees, seasonal fuel tax, county vehicle registration fees,** payroll tax, advertising/naming rights, tolls, and **targeted sales tax.**

Tools highlighted and bolded in green made it to the short-list.

The FWG reviewed an evaluation of these 17 funding tools to help them narrow to a short-list of funding tools for further consideration. The evaluation looked at each tool across several criteria: legality, efficiency, equity, political acceptability, and magnitude of additional funding. An initial and very preliminary indication of revenue capacity was also provided qualitatively.

Participating in their own ranking and evaluation exercise (see Exhibit 5), the FWG identified which funding tools they considered most suitable for funding Bend's needed transportation projects and priorities. Eight funding tools emerged as most suitable. The FWG also asked staff

and the consultant team to consider a local option levy for operations costs if paired with a general obligation (GO) bond for capital costs.

Exhibit 4. Funding Tool Ranking Exercise

Output from FWG#2 ranking exercise. Each member was given ten gold circles to allocate to funding tools that they believed to be most suitable for Bend based on the meeting packet they reviewed and the group discussion about it. They were also given red circles to allocate to tools that they did not believe to be suitable for further consideration at this stage. Results and outcomes are discussed below.

Meeting Outcome

Evaluating the menu of funding tools became the foundation for the next step of work. Nine tools ended up on a short-list of tools earmarked for more analysis. These tools are:

- Increased Transportation System Development Charges
- Local improvement districts
- Urban renewal
- Seasonal fuel tax
- Targeted sales tax
- General obligation bond
- County vehicle registration fees
- Transportation utility fees
- Local options levy

Funding Work Group Meeting #3

Funding Work Group Meeting #3 took place on September 20, 2018. The following provides a summary of the technical content and meeting outcome.

Summary of Technical Content

At FWG #3, the project team reviewed funding packages and more detailed information on the funding tools that comprised the packages.

Prior to this meeting, the FWG members received a packet of information that included an evaluation of individual funding tools across a set of dimensions that could limit or encourage each tool's use in one of four funding packages. For context, each funding package served as a preliminary (hypothetical) proposal of what a potential funding strategy could look like. Therefore, the evaluation of individual funding tools, see Figure 1 in Appendix C, is key technical detail because each package should:

- Meet all target funding needs.
- Support all project types earmarked in the BTP (i.e. O&M vs. capital; transit vs. roadway).
- Provide sufficient funds available for use across the geographic region, of which some areas of Bend would require more or less funds contingent on project locations.
- (Ideally) spread the financial burden across different groups (e.g. residents, property owners, businesses, commuters, tourists, etc.).
- (Ideally) not be overly problematic to implement, of which some funding tool possesses different logistical needs (e.g. public vote, renewal, council action, etc.).

The overview of funding tool dimensions and other information provided in the FWG packet gave the FWG a better understanding of each funding tools' nuances, advantages, and risks. Recognizing this was key to understanding the development and makeup of each package. In that, each tool played a different role; piecing tools together to form funding packages was demonstrative of an iterative process that took each of the tool's dimensions into consideration.

In addition to an overview of funding tool dimensions, the consultant team provided context for each tool's revenue capacity. This included information about (1) the legal, maximum revenue capacity generated from each tool and (2) revenue capacity given different imposed rates. Discussions about revenue projections stayed at a relatively high-level; the FWG did not go into detail discussing data sources, assumptions, or methods. That said, FWG members did receive this information in their packet, see Appendix C.

The compilation of these details allowed the FWG to have a robust discussion of the implications to using each tool and implications of each funding package. The FWG provided direction on how to refine the packages for inclusion in the IFA report and provided direction on the preliminary strategies for inclusion in the IFA report.

Meeting Outcome

Input given at FWG #3 centered on each of the funding tools individually, each of the funding packages individually, and general principles that the eventual Funding Plan should encompass. Regarding the funding tools, the group shared their thoughts about whether funding capacities seemed reasonable or overly burdensome. FWG members also discussed suitability of each of the tools from a messaging and optics standpoint, particularly for the tools that would require a public vote.

Based on the discussion during FWG meeting #3, the consultant team drafted recommendations for initial FWG review and approval. FWG members had the opportunity to review and provide comment on the draft recommendations, which the consultant team then revised and included as the key content in this IFA. These may be further revised after FWG #4.

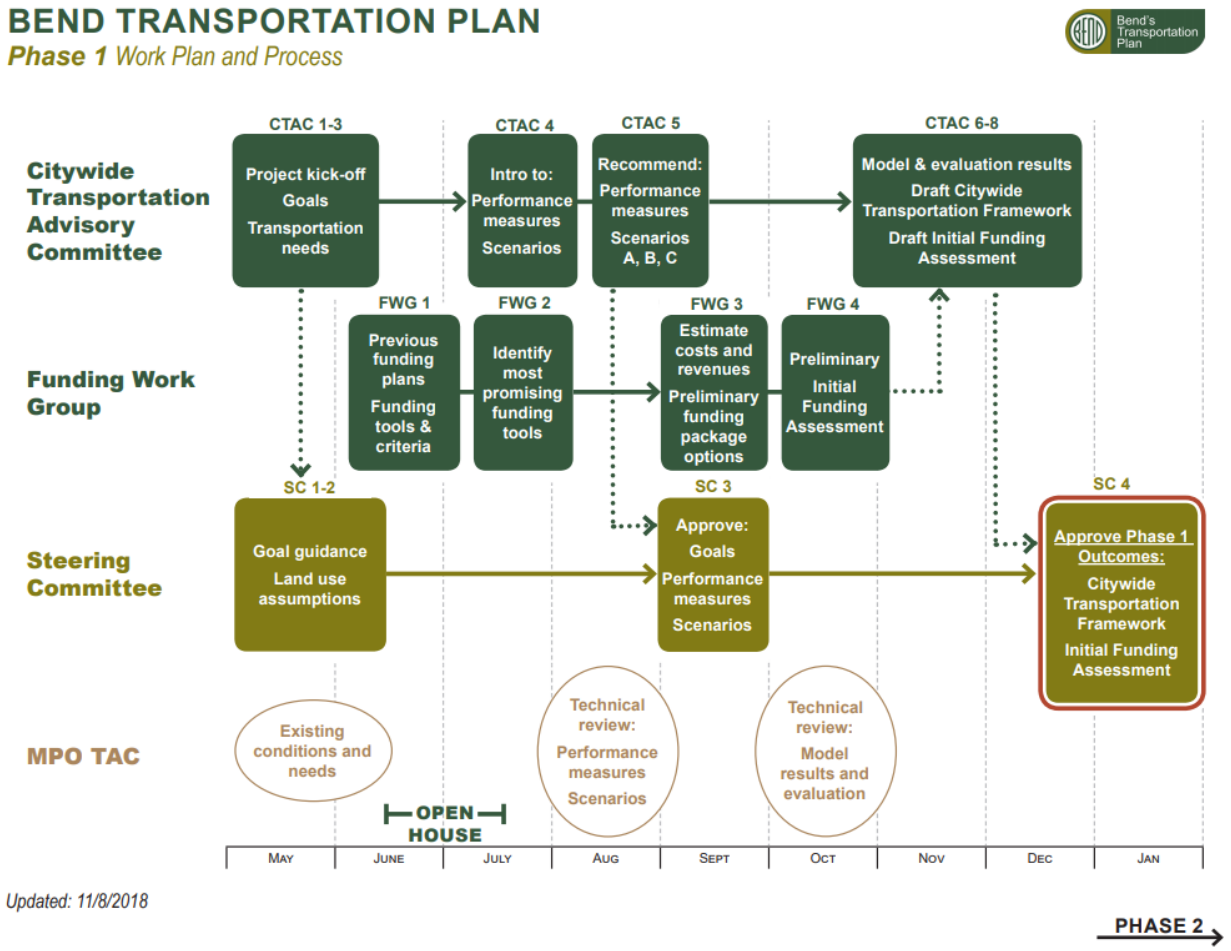
Next Steps

This Initial Funding Assessment report is a recommendation from CTAC to the Steering Committee. The initial recommendations capture high-level strategies but do not include a detailed funding package; this will be developed and refined in 2019, with further input from the FWG, CTAC and the Steering Committee.

Analysis, findings, and recommendations captured in this IFA will feed into the second and third phases of the BTP, see next Exhibit. According to the current timeline, in spring and summer of 2019, CTAC will develop a list of priority projects and programs for Bend's Transportation Plan. Based on these projects and programs, the staff and consultant team will develop a more specific estimate of the full extent of project costs of Bend's Transportation Plan over the 20-year analysis period. With input from the FWG and CTAC, the staff and consultant team will continue to fine-tune projections for new funding tools and revenues. The FWG will then consider a refined funding package, which will be based on the initial recommendations in this IFA, using the updated cost and revenue estimates. The funding package will be described as part of a funding plan. Once the FWG has reached agreement on the funding plan, it will be presented to CTAC for input, then to the Steering Committee for approval.

This process will lead us to a funding plan that (1) considers the costs of needed projects and programs as identified by CTAC, and (2) identifies suitable new funding tools to cover funding needs that exceed the City's current funding capacity.

Exhibit 5. Phase 1 Workplan, Leading to Phase 2



Citywide Transportation Framework Recommendations

PREPARED FOR: Steering Committee
PREPARED BY: TSP Project Team
DATE: January 22, 2019

Introduction

This memorandum presents the Citywide Transportation Advisory Committee's (CTAC) recommendations for the Citywide Transportation Framework. The Citywide Transportation Framework is a key outcome of the first year of work to update Bend's Transportation Plan. It implements the project goals and performance measures approved by the Steering Committee in September 2018 (Results of Sept 11 2018 SC Meeting). CTAC believes that the recommended Citywide Transportation Framework provides a balanced basis for a transportation system that will serve Bend residents, workers, visitors, a robust economy, and a livable community to 2040.

The project team conducted a detailed technical evaluation of three citywide transportation scenarios, considering both the tradeoffs of the approaches that scenarios represented, as well as the benefits of individual projects (Scenario Evaluation Detailed Technical Analysis – Attachment E). CTAC then used the technical findings to work through a list of transportation project and program choices – resulting in the Citywide Transportation Framework recommendations described in this memo.[1]

The recommended Citywide Transportation Framework includes a broad range of projects and programs to accommodate Bend's growth to 2040. The Citywide Transportation Framework projects and programs principally affect the City's arterial and collector system and transportation patterns in the City as a whole[2]. The CTAC-recommended Citywide Transportation Framework is now directed to the Steering Committee for refinement (as necessary) and approval. Once approved by the Steering Committee, the Citywide Transportation Framework will serve as the basis for Phases 2 and 3 of Bend's Transportation Plan.

The Citywide Transportation Framework will be combined with the outcomes of the January 2019 Neighborhood Workshops, resulting in a complete system of projects and programs for the

[1] CTAC was briefed on the technical evaluation at its November 13, 2018 meeting, then met in workshop format on December 4th and 11th to create its recommendations.

[2] In addition to advancing the City's Transportation Plan, the Citywide Transportation Framework will be the basis for an update of the Bend Metropolitan Planning Organization's Transportation Plan update, which focusses on arterials and collectors and has a regulatory deadline for an update by fall 2019. Because the boundaries of the MPO are largely the same as the City of Bend's, the Bend Transportation Plan and the MPO MTO are being created concurrently for efficiency and to comply with the Transportation Planning Rule.

City's Transportation Plan update. In late spring/early summer 2019, the project team, CTAC and the Steering Committee will begin the process of prioritizing citywide and neighborhood projects and programs, and matching those projects with funding. During that same time period, CTAC will be developing policy language.

Developing the Recommended Citywide Framework

The findings from evaluating three scenarios against 18 performance measures[3] informed the development of the recommended Framework. A detailed summary of the scenario evaluation can be found in the *Scenario Evaluation Overview for CTAC* (Scenario Evaluation).

Key Findings from Scenario Evaluation & CTAC Discussion

✓ Addressing Key Vehicular Capacity Needs Will Improve Travel Time Reliability & Help Alleviate Congestion

The analysis found that a mix of approaches is needed to manage Bend's existing and future congestion – including improving connectivity (new roads), widening existing roadways, fixing intersection bottlenecks, and/or adopting policy that allows for more vehicular congestion in specific areas or corridors. Three need areas that were particularly complex to identify preferred solutions for and led to focused CTAC discussions of trade-offs were: (1) east-west capacity and connectivity through Central Bend, (2) north-south capacity, and (3) south/central US 97 corridor capacity and safety.

For need areas #1 and #2, the recommended Citywide Transportation Framework includes a combination of new roads and an incremental approach to intersection improvements and roadway widening that will allow the City to prepare for growth and monitor transportation technology changes while preserving the ability to construct new or widen existing roadways when they are needed. In addition, the Citywide Transportation Framework includes recommendations to study several projects, such as a new bridge over the Deschutes River and moving the Burlington Northern Railroad switching yard outside of the City. For need #3, CTAC decided to support operations and safety management improvements to be identified via the ODOT US 97 Parkway Study.

✓ Complete Bike and Pedestrian Networks Create Connectivity and Access

Complete bicycle and pedestrian systems in Bend will improve connectivity and access for people on foot, using mobility devices, and on bikes. Without the complete network, individual projects will not result in significant gains in access to jobs for those walking, using mobility devices or biking. Completing these networks is particularly important for improving the viability of transit in Bend. CTAC recommended implementation of the complete bicycle "low-stress network" and a complete pedestrian system to address this need.

[3] Safety is of particular concern to CTAC and the public. Safety projects are included in the Baseline, as a Performance Measure, were a key discussion point in developing the CTF, and will be studied as part of the Transportation Safety Action Plan (TSAP), which is being conducted concurrently with the Transportation Plan. The TSAP is expected to provide projects and policies in the Spring of 2019.

✓ **Transit and Demand Management Work Together**

The analysis showed that demand for motor vehicle trips, particularly during peak hours, can be reduced by a combination of transit investments and implementing policies and programs that encourage use of other modes (e.g., parking pricing and employer commute options). Concepts such as "mobility hubs"[4] have the potential to improve mobility and reduce demand for motor vehicle trips by providing first/last mile travel choices that connect to an improved transit system. Implementing transportation demand management in key regional centers and parking pricing in downtown would support increased transit, walking and biking in Bend and complement the land use plan adopted in the 2016 update of Bend's Comprehensive Plan.

Recommended Citywide Transportation Framework

The recommended Citywide Transportation Framework is a balanced approach to addressing Bend's citywide transportation needs. Projects include enhancing capacity, improving safety, completing walking and biking connections, and enhancing operations with technology, improving transit service, and implementing travel demand management. The recommended Citywide Transportation Framework is a mix of the best performing projects combined with the Baseline projects that are already in the transportation plan.[5]

Baseline Projects

The recommended Citywide Transportation Framework includes Baseline Projects, comprised of the City of Bend's 5-year Capital Improvement Program, the Bend MPO Transportation Plan's financially-constrained project list, and the Bend Urban Area 2016 Transportation System Plan amendments to support the UGB expansion.[6] These projects are anticipated to be funded with current funding streams. The Baseline Projects are shown in Figure 1 and listed in Table 1.

Additional Vehicular & Multimodal Projects

CTAC recommends 33 new projects and programs to be added to the Baseline Projects to serve together as the Citywide Transportation Framework. Funding for these projects and programs, which go beyond the funding assumptions for the Baseline Projects, will be evaluated as part of the future phases of the work program (see the *Initial Funding Assessment* for additional detail). These additional projects are shown in Figures 2 and 3 and listed in Table 2. For operational and safety improvements to US 97 (project N-4), additional detail will be developed as part of the in-process US 97 Bend Parkway Plan.

Complete Bicycle Low-Stress Network

CTAC recommends implementation of a complete Bicycle Low-Stress Network as part of the Citywide Transportation Framework. The Bicycle Low-Stress Network, presented on Figure 5,

[4] A mobility hub is a physical place where different modes of travel and services converge, providing an integrated range of mobility services such as public transit, bike share, scooters, shuttles, and ride-share. This convergence of services helps to seamlessly link trips by different modes, including providing first/last mile services for regional transit connections.

[5] CTAC recommended addressing some projects, listed in Appendix A, outside of the Citywide Framework because they did not address the performance measures, or could better be addressed through policy or at the neighborhood level.

[6] Bend Urban Area Transportation System Plan as updated to incorporate 2016 UGB expansion.

will be implemented through a mix of projects, including the retrofit of existing streets with protected bike facilities, enhancements to support Neighborhood Greenways (shared use facilities), and crossing improvements to connect the network. CTAC is also working on policy language to ensure that new facilities will be constructed to include low-stress bicycle infrastructure.

Connected Pedestrian System

CTAC recommends implementing a complete pedestrian system as part of the Citywide Transportation Framework through: (a) identifying projects to close sidewalk and crossing gaps on arterials and collectors and (b) implementing a local sidewalk infill and crossing improvement program. The project team is inventorying gaps in the collector and arterial sidewalk system and identifying locations where crossing enhancements are needed. The project team will refine the local sidewalk infill and crossing improvement program using input from Neighborhood Workshops and discussions with CTAC around pedestrian policy. Future work efforts may also assess the condition of existing sidewalks to determine necessary improvements. Because this work is not complete, the projects required to complete the pedestrian network on the arterial and collector network are not presented in this memorandum.

Studies and Policies

CTAC recommends two studies to determine how best to address major transportation issues:

1. Study an additional river crossing south of Reed Market Road. CTAC agreed that a new river crossing to create an additional east-west corridor is likely to be needed before 2040, and that the City should undertake a more detailed study of the location, impacts, and tradeoffs to determine the appropriate location.
2. Study the feasibility of either relocating the BNRR switchyards outside of the City or grade-separating the railroad crossing of Reed Market Road to address the Travel Time Reliability impacts of train car switching.

CTAC also recommends several projects and programs that are not geographically specific and therefore not mapped:

- Require Travel Demand Management programs for major employers and institutions.
- Install and implement technology to improve traffic signal coordination on signalized corridors, including freight and transit signal priority on designated corridors.
- Implement parking pricing in Downtown Bend as planned in the Downtown Parking Plan.

In addition, CTAC recommends adopting policies that will allow for different mobility standards in specific areas of the City, as well as when projects would be triggered by demand. Policy language for these items will be developed during the winter and early spring of 2019.

Figure 1. Baseline Transportation Projects

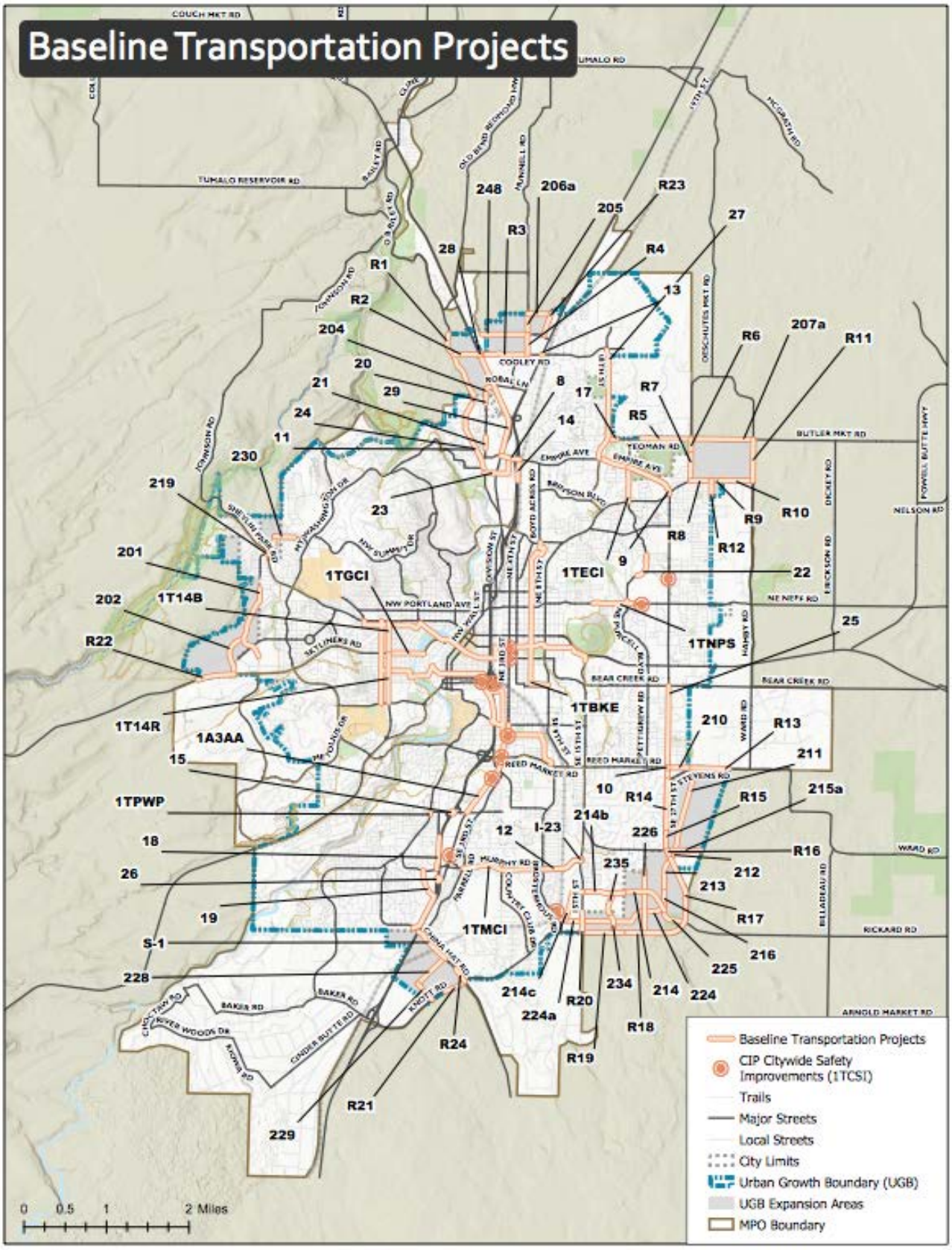


Table 1. Baseline Transportation Projects

Number	Project Description
8	Widen Empire Ave to 5 lanes and install signal at SB ramps
9	Construct extension of Empire Ave
10	Realign Stevens Road to connect directly to Reed Market Rd
11	Construct intersection control improvements on O.B. Riley Rd
12	Murphy Road extension
13	US 97/Cooley Road area improvements
14	Widen existing Empire Ave/US 97 ramp to 2 lanes
15	Preliminary engineering and ROW acquisition for overcrossing or interchange of US 97/Powers Road
17	Construct Yeoman Road 2 lane extension
18	North Frontage Road
19	South Frontage Road
20	Britta Street extension (north section)
21	Britta Street 2 lane extension
22	Purcell 2 lane extension
23	Mervin Samples Rd/Sherman Rd upgrade to 2 lane collector roadway and install traffic signal at US 20
24	Upgrade O.B. Riley Rd to 3 lane arterial
25	Upgrade 27th Street to 3 lane arterial
26	Construct northbound on and southbound off ramps at US 97/Murphy Road
27	Complete 19th Street 3 lane arterial
28	Construct intersection control improvements on US 20
29	Add second southbound through lane on US 20
1TMCI	Murphy Corridor Improvements
1TECI	Empire Corridor Improvements
1TBKE	Bicycle Greenways
1A3aa	South 3rd Street Pedestrian Improvements
1TNPS	Neff and Purcell Intersection (Formerly Neff & Purcell Sidewalk)
1TPWP	Powers and Brookswood Roundabout Phase II
1TGCI	Galveston Corridor Improvements
1T14B	14th Street Reconstruction Schedule B
1T14R	14th Street Reconstruction
1TCSI	Citywide Safety Improvements
R1	O.B. Riley Rd (curb, sidewalk and bike lane improvements)
R2	Cooley Rd (curb, sidewalk and bike lane improvements)
R3	Cooley Rd (curb, sidewalk and bike lane improvements)
R4	Hunnell Road (sidewalk improvements)
R5	Yeoman Rd (curb, sidewalk and bike lane improvements)
R6	Deschutes Market Rd (curb, sidewalk and bike lane improvements)
R7	Deschutes Market Rd (curb, sidewalk and bike lane improvements)
R8	Butler Market Rd (curb, sidewalk and bike lane improvements)
R9	Butler Market Rd (curb, sidewalk and bike lane improvements)
R10	Butler Market Rd (curb, sidewalk and bike lane improvements)
R11	Butler Market Rd (curb, sidewalk and bike lane improvements)
R12	Eagle Rd (curb, sidewalk and bike lane improvements)
R13	Stevens Rd (curb, sidewalk and bike lane improvements)
R14	SE 27th St (curb, sidewalk and bike lane improvements)
R15	SE 27th St (curb, sidewalk and bike lane improvements)
R16	SE 27th St (curb, sidewalk and bike lane improvements)
R17	SE 27th St (curb, sidewalk and bike lane improvements)
R18	SE 27th St (curb, sidewalk and bike lane improvements)
R19	Knott Rd (curb, sidewalk and bike lane improvements)
R20	15th St (curb, sidewalk and bike lane improvements)
R21	Knott Rd (curb, sidewalk and bike lane improvements)

R22	Skyliners Rd (curb, sidewalk and bike lane improvements)
R23	Clausen Dr (curb, sidewalk and bike lane improvements)
R24	China Hat Rd (curb, sidewalk and bike lane improvements)
R25	China Hat Rd (curb, sidewalk and bike lane improvements)
R26	Deschutes Market Rd (curb, sidewalk and bike lane improvements)
201	Skyline Ranch Road Extension
202	Crossing Drive Extension
204	New Road
205	Hunnell Road Extension
206a	New Road
207a	Yeoman Road Extension
210	New Road to Stevens
211	New Road
212	New Road
213	New Road
214	New Road
214b	New Road
214c	New Road
215a	New Road
216	New Road
219	Skyline Ranch Road
224	New Road
224a	New Road
225	New Road
226	New Road
228	New Road
229	New Road
230	New Road
234	Raintree Court Extension
235	Raintree Court Extension north
248	Loco Road Extension
S-1	Corridor improvement, China Hat widen from 2 to 3 lanes
I-23	Roundabout at Murphy Road/SE 15th Street

Figure 2. Additional Citywide Transportation Framework Projects

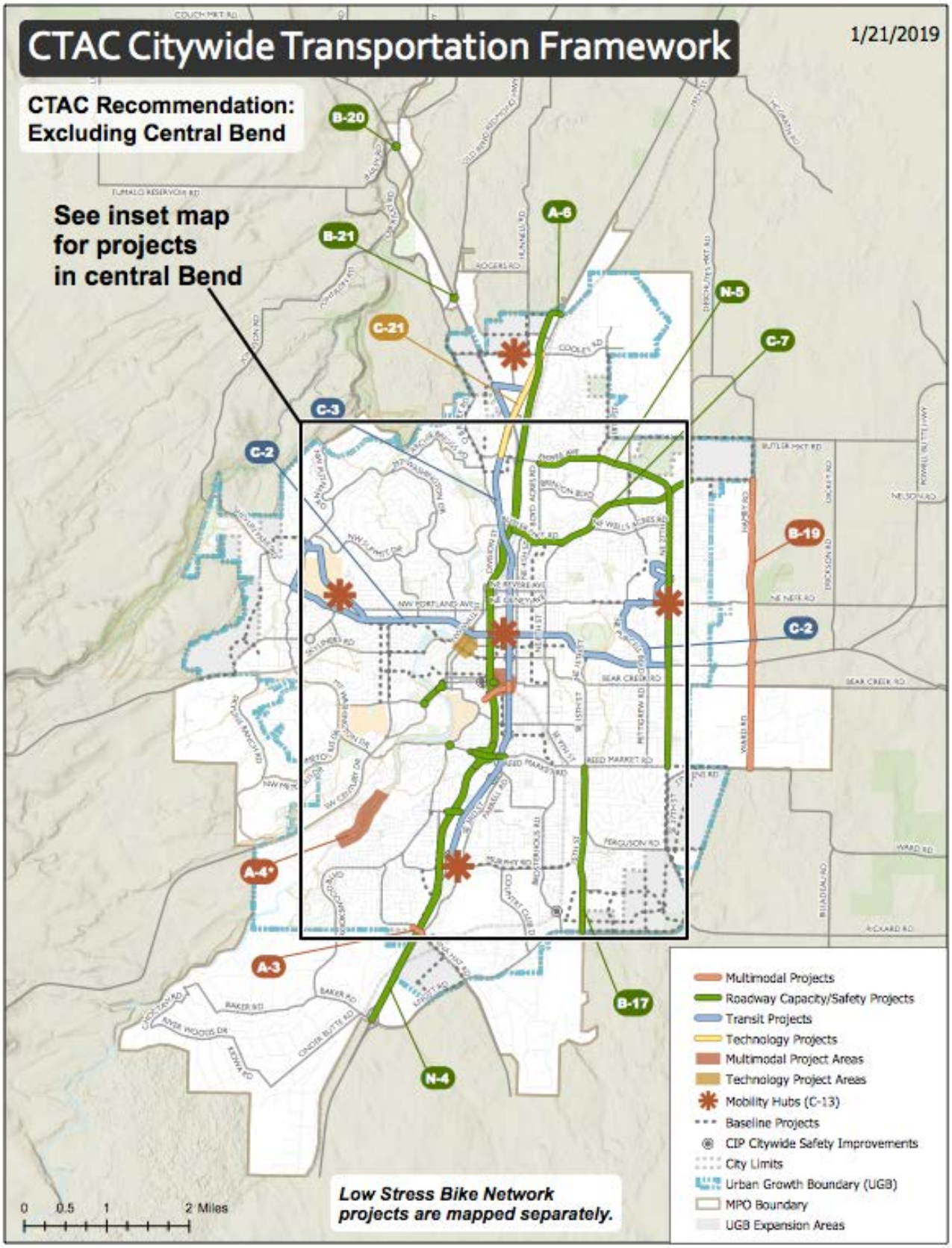


Figure 3. Additional Citywide Transportation Framework Projects (Central Bend Area)

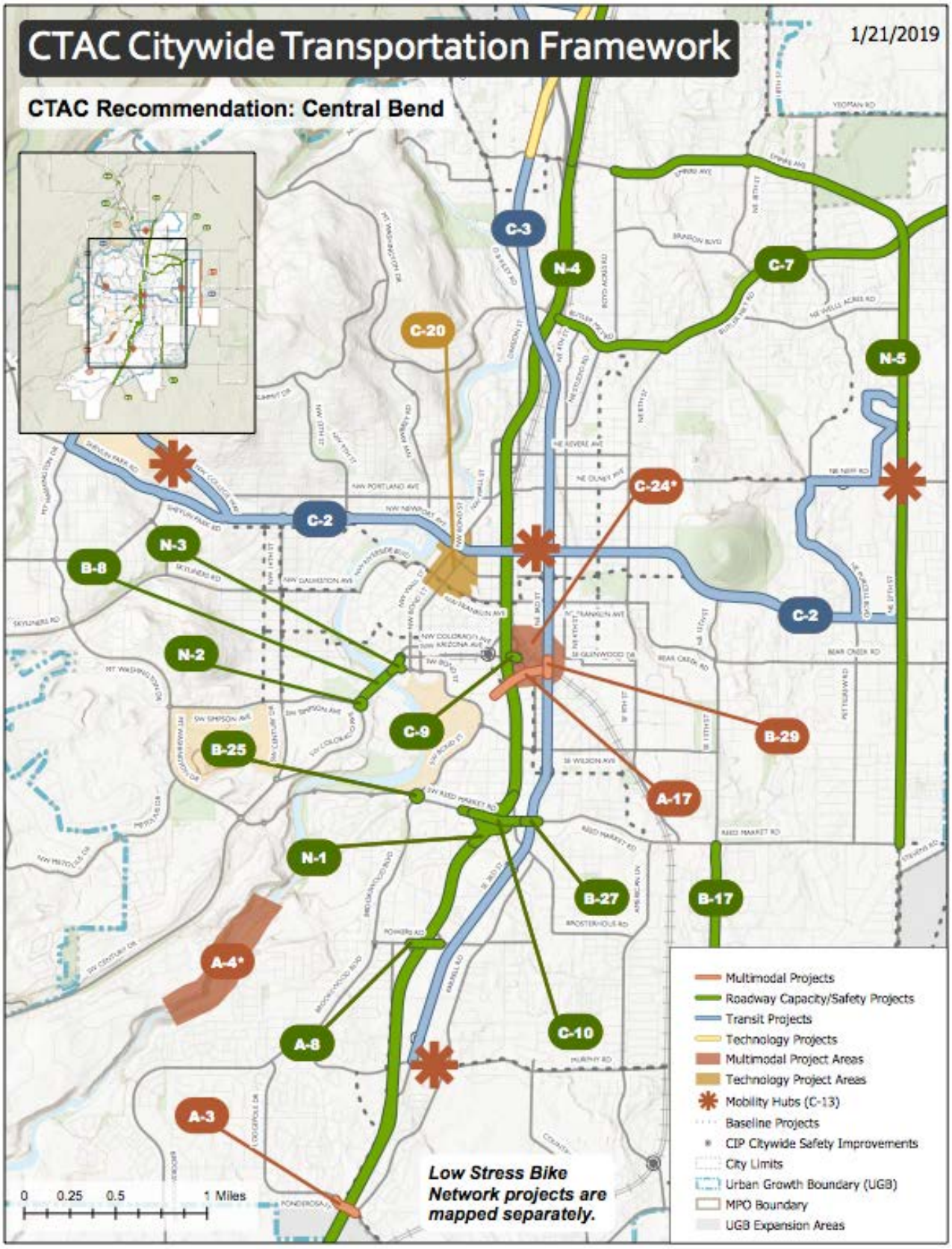


Table 2. Additional Citywide Transportation Framework Projects

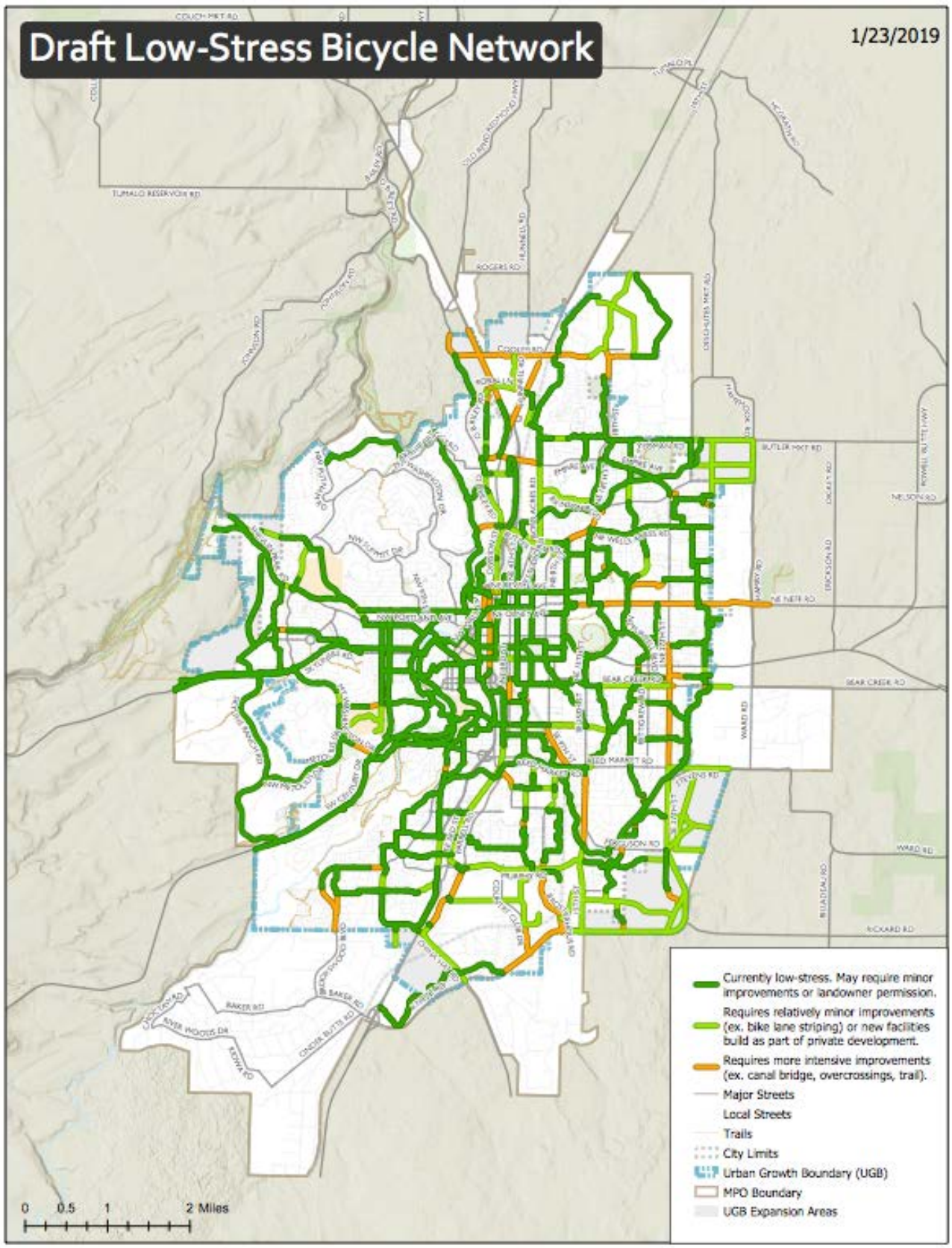
Number	Project Description	Project Type
A-3	Ponderosa Street/China Hat Road Overcrossing of US 97	Multimodal
A-4*	Southern River Crossing Study (between Powers and Murphy)	Multimodal
A-6	US 97 North Parkway Extension (from Grandview Drive to US 97), including all improvements in the FEIS	Roadway Capacity/Safety
A-8	Powers Road/US 97 interchange1	Roadway Capacity/Safety
A-17	Aune Road Extension (Bond to 3rd Street)	Multimodal
B-8	Colorado Avenue corridor capacity improvements (Include incremental approach for Colorado including right-of-way acquisition and monitoring for if/when widening is appropriate. Implement alternate mobility targets and identify smaller projects to improve mobility, reliability and safety)	Roadway Capacity/Safety
B-17	Corridor Improvements to 15th Street between US 20 and Knott Road, including protected bike/ped facilities and roundabouts at key intersections	Roadway Capacity/Safety
B-19	Hamby Road widening (from Stevens Road to Butler Market Road), including a roundabout at US 20	Multimodal
B-20	Intersection safety and capacity improvements at US 20/Cook/Tumalo	Roadway Capacity/Safety
B-21	Intersection safety and capacity improvements at US 20/Old Bend-Redmond Highway	Roadway Capacity/Safety
B-25	Widen Bond/Reed Mkt roundabout (partial two lane)	Roadway Capacity/Safety
B-27	Provide dedicated left turn lanes on Reed Market at 3rd Street – possibly through widening or a road diet	Roadway Capacity/Safety
B-29	Widen 3rd St to 4 lanes under the railroad, including complete street design	Multimodal
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	Transit
C-3	3rd Street high-capacity transit with mobility hubs near Robal Road, downtown Bend, and Murphy Road	Transit
C-7	Butler Market Road intersection capacity improvements	Roadway Capacity/Safety
C-9	US 97 northbound/Colorado Avenue traffic signal	Roadway Capacity/Safety
C-10	Reduce turn movements at the Reed Market Road/US 97 northbound ramps	Roadway Capacity/Safety
C-13	Mobility Hubs (access to transit, bike share, car share, etc.) at key gateways and activity centers	Multimodal
C-16 (Not mapped)	TDM program for major employers and institutions	Technology
C-19 (Not mapped)	Improved traffic signal coordination on signalized corridors, including freight and transit signal priority on designated corridors	Technology
C-20	Parking pricing in Downtown Bend	Technology
C-21	Traffic signal priority for freight and transit at signalized intersections on US 97	Technology
C-24*	Study of cost and feasibility of relocating BNSF switchyard	Multimodal
N-1	Reed Market/US 97 Interchange	Roadway Capacity/Safety
N-2	Widen Colorado Avenue / Simpson Avenue roundabout	Roadway Capacity/Safety
N-3	Colorado Avenue / Industrial Way intersection capacity improvements	Roadway Capacity/Safety
N-4	US 97 operational and safety management improvements as defined by ODOT Parkway Study	Roadway Capacity/Safety

N-5	Empire/27th corridor capacity improvements (Include incremental approach for Empire/27th including right-of-way acquisition and monitoring for if/when widening is appropriate. Implement alternate mobility targets and identify smaller projects to improve mobility, reliability and safety)	Roadway Capacity/Safety
LSN (mapped separately)	Complete the bicycle low stress network (LSN)	Pedestrian/ Bicyclist
P-1 (Not mapped)	Complete the arterial/collector pedestrian system (sidewalks and crossings)	Pedestrian/ Bicyclist
P-2 (Not mapped)	Implement a local street sidewalk infill & crossing improvement program	Pedestrian/ Bicyclist
Not mapped	Adopt policies that allow for more congested conditions in some areas of the City and smaller projects to address needs	N/A

*Indicates project for a feasibility study

Project Type: Multimodal Roadway Capacity/Safety Transit Technology Pedestrian/Bicyclist

Figure 4. Bicycle Low Stress Network



Remaining Key Need for Steering Committee Direction

CTAC agreed that additional east-west roadway connectivity north of Reed Market Road (between 15th Street and 27th Street) is important to provide capacity and route choices to manage congestion on Reed Market Road and other east-west routes. This concept was evaluated in the scenarios as a collector roadway extension of Wilson Avenue from 15th Street to Pettigrew Road. However, CTAC was split on whether the connection should be an extension of Wilson Avenue as a through-collector street or a series of local street connections within the neighborhood. CTAC also discussed whether the connection(s) should extend further east from Pettigrew Road to reach 27th Street.

The technical evaluation for the Wilson Road extension found that it would have potentially significant benefits for managing vehicular congestion. By 2040, the Reed Market Road demand is forecasted to significantly exceed capacity, creating issues with reliability in travel time that could cause peak hour variations in travel time of up to 15 minutes beyond normal conditions. Providing an additional through corridor along Wilson Road between 15th Street and Pettigrew Road was found to reduce demand on Reed Market Road by up to 15%. Connecting further east to 27th Street could provide greater reduction. In addition, the new roadway would provide an additional connection for walking and biking through the area.

However, the extension of Wilson Road is challenged with a number of constraints, including topography, private property impacts, and neighborhood livability. A preliminary alignment review by City staff found that at least five residences would likely need to be purchased to construct a collector roadway extension of Wilson Road to reach Pettigrew Road. In addition, the corridor would use existing local streets through residential areas, creating potential issues with traffic volume in the neighborhood. A series of local street connections may be a viable alternative to providing this connection with reduced property and neighborhood impacts; however, local street connections may not provide as much system capacity/congestion benefit and may encourage cut-through traffic on local streets.

CTAC recommends that the Steering Committee discuss this remaining need and provide direction. Options include:

a) Approve a project for the Citywide Transportation Framework, including the type of connection (collector corridor or local street connections) and the eastern extent of the improvement (Pettigrew Road or 27th Street); or

b) Request further evaluation in Phase 2 of the work program to determine the feasibility, impacts, and benefits of a collector corridor vs. local street connections; or

c) Approve a study for the Citywide Transportation Framework to examine this need in more detail, including a targeted public outreach component, at a later time.

Staff recommends advancing Option B, which would allow the project team to conduct additional evaluation and bring that information back to CTAC and the Steering Committee in Spring 2019. At that time, if it is determined that a focused planning and conceptual design effort (including additional neighborhood outreach in the project area) is necessary, Option C could still be selected.

Benefits of Implementing the Citywide Transportation Framework

Implementing the Citywide Transportation Framework will address the Steering Committee's approved Transportation Goals, as summarized in Table 3. The Citywide Transportation Framework will create the basis for a transportation system that increases transportation choices, improves travel time reliability and safety, addresses key vehicular mobility issues, and sets the stage for future changes in transportation technology.

Table 3. Citywide Framework Approach to Addressing Goals

TRANSPORTATION GOAL	CITYWIDE TRANSPORTATION FRAMEWORK APPROACH
Increase System Capacity, Quality, and Connectivity for All Users	• Increase connectivity, mobility, and reliability for vehicular traffic by addressing system bottlenecks. • Improve connectivity for people biking by implementing a complete bicycle low-stress network. • Improve connectivity for people walking and using mobility devices by creating a connected pedestrian system through sidewalk infill and enhanced pedestrian crossings. • Enhance connectivity for people biking, walking, and using mobility devices by implementing current City policy to construct sidewalks and bicycle facilities along with all projects on arterials and collectors. • Address the system disruptions caused by railroad crossings and switching activities by studying grade-separation of railroad crossings at Reed Market Road and relocating switching activities outside of the City. • Manage system demand by implementing transportation demand management in key regional centers, increasing transit service and connections to other modes, and pricing downtown parking. • Upgrade rural roads within the City to provide connections for all modes to growth areas.
Ensure Safety for All Users	• Address known safety issues at locations with high-crash rates or severe/fatal crashes with enhanced traffic control, crossing treatments, etc. • Provide grade-separated crossings of high speed/volume corridors for walking and biking. • Implement access management and operational enhancements on US 97 consistent with the ODOT US 97 Parkway Plan outcomes. • Implement a complete bicycle low-stress network. • Implement a connected pedestrian network. • Upgrade rural roads within the City to city standards to provide connections for all modes to growth areas. • Minimize the barrier effect of future high-speed/high-volume roadways by monitoring the need for widening to multiple through-traffic lanes and implementing improvements as needed over time.

TRANSPORTATION GOAL	CITYWIDE TRANSPORTATION FRAMEWORK APPROACH
Facilitate Housing Supply, Job Creation, and Economic Development to Meet Demand/Growth	• Improve connectivity in areas for future growth, including the collector roadway system identified in the UGB expansion process. • Upgrade rural roads within the City to city standards to provide connections for all modes to growth areas. • Anticipate future growth to the east and south by supporting right-of-way acquisition for future widening of Empire/27th and a study of a new river crossing south of Reed Market Road. • Address key freight bottlenecks including implementing the North Parkway FEIS projects, supporting the current ODOT US 97 Parkway Study through access management and operational improvements, and recommending improvements to the south end of US 97. • Provide transportation systems (transit, mobility hubs, walking/biking corridors) in key urban corridors/centers to support the land use vision of higher density, mixed-use
Protect Livability & Ensure Equity & Access	• Implement complete biking and walking networks. • Reduce through traffic on local streets by addressing key system bottlenecks on arterial and collector roadway corridors with new connections and additional capacity. • Include projects that improve access throughout the City, with a focus on improvements to accessibility on Bend's eastside. • Improve transit headways, including high-capacity transit on key corridors, and improve transit service connections mobility hubs. • Minimize the barrier effect of future high-speed/high-volume roadways by monitoring the need for widening to multiple through-traffic lanes and implementing improvements as needed over time.
Steward the Environment	• Implement demand management policies and programs, increase transit service and connections, and provide complete walking and biking networks to limit increases to VMT/capita.
Have a Regional Outlook & Future Focus	• Leverage investments by ODOT (US 97 Parkway) and Cascades East Transit to improve the transportation system. • Utilize technology to optimize transportation system performance (e.g., enhanced traffic signal coordination and ramp metering). • Create transportation mobility hubs where residents and visitors can link traditional transit with new transportation modes (e.g., ride share, bike share, micro transit), including connections to regional transit or vanpool trips. • Address bottlenecks on key corridors in/out of Bend
Implement a Comprehensive Funding & Implementation Plan	• Support prioritization in spring 2019 to match investments with an emerging funding plan. • Manage maintenance and operations costs by limiting increases in lane miles of roadway. • Monitor the need for major roadway widening projects as growth occurs and new transportation technology and mode choices emerge.

Appendix A: Projects to Address Outside of the Citywide Framework

Neighborhood Level Projects for Phase 2 Evaluation

Table 1: Projects to Address at the Neighborhood Level

Number	Project	Notes
A-9	US 97/Murphy Road Frontage Road	More suited for neighborhood discussion with downtown stakeholders
A-13	US 20 Multi-Use Path (between Cooley Road and Old Bend-Redmond Highway)	For bicyclists, this is best if paired with widening 3rd Street under the railroad (B-29))
B-1	Greenwood Avenue protected bike facility	This would require the remainder of Greenwood to be made low-stress, which could be difficult to implement due to road width and parking uses
B-4	US-20 protected bicycle facilities	Bear Creek bicycle facilities (B-24) would provide an alternate and quieter route that may be more practical to achieve
B-23	Portland Avenue intersection improvements	This should include consideration of intersection at NW College
C-1	Greenwood Avenue road diet from Bond to 3rd Street	Would likely result in an LTS 3 facility, which is still high-stress for bicyclists
C-11	Convert Wall to SB one-way from Bond to Newport	More suited for neighborhood discussion with downtown stakeholders
C-15	Road diet on Wall and Bond with parking protected bicycle facilities	More suited for neighborhood discussion with downtown stakeholders

Policy Approach

Table 2: Projects to Advance through Policy

Number	Project	Rationale	Next Step
A-2	Cooley Extension	Limited traffic attraction	Consider in the future if the regional Redmond to Bend 19th Street Corridor Project is advanced
A-21	Grade separate rail crossings at Revere, Wilson, Reed Market, Country Club	Not a likely project for the citywide framework, but could be an action/policy to advance for future corridor planning	Address in policy within the TSP
B-8	Colorado Avenue widening (from Simpson Avenue to Arizona Avenue)	Recognize that this project may be needed in the future, but smaller projects may assist mobility in the short term.	Include incremental approach for Colorado widening including right-of-way acquisition and monitoring for if/when widening is appropriate. Implement alternate mobility targets and identify smaller projects to improve mobility, reliability and safety

B-9	US 97/Robal Road intersection capacity improvements	ODOT Parkway Study will identify potential solutions in this area.	Support US 97 operational and safety managements improvements as defined by the ODOT Parkway Study (N-4).
B-10	US 97 southbound auxiliary lane (from Empire Boulevard to Butler Market Road)	ODOT Parkway Study will identify potential solutions in this area.	Support US 97 operational and safety managements improvements as defined by the ODOT Parkway Study (N-4).
B-12	Empire Boulevard widening (from Boyd Acres Road to Butler Market Road)	Recognize that this corridor may be needed in the future and that ROW should be reserved as development occurs.	Include a project to reserve right-of-way only for corridor widening (N-5). Widen key intersections along the corridor (e.g., multi-lane roundabouts). Implement alternate mobility targets and identify smaller projects to improve mobility, reliability and safety
B-22	27th Street widening (from Neff Road to Butler Market Road)	Recognize that this corridor may be needed in the future and that ROW should be reserved as development occurs.	Include a project to reserve right-of-way only for corridor widening (N-5). Widen key intersections along the corridor (e.g., multi-lane roundabouts). Implement alternate mobility targets and identify smaller projects to improve mobility, reliability and safety
C-4	US 97 access management (from Cooley Road to US 20)	ODOT Parkway Study will identify potential solutions in this area.	Support US 97 operational and safety managements improvements as defined by the ODOT Parkway Study (N-4).
C-5	US 97 access at Hawthorne Avenue closure	ODOT Parkway Study will identify potential solutions in this area.	Support US 97 operational and safety managements improvements as defined by the ODOT Parkway Study (N-4).
C-8	Implement transit service on Butler Market	Not much attraction to transit on Butler	CET plan
C-12	Sign the route from US20 to US97 to continue on 3rd St to Division ramp instead of Empire or provide traveler info.	ODOT Parkway Study will identify potential solutions in this area.	Support US 97 operational and safety managements improvements as defined by the ODOT Parkway Study (N-4).
C-14	Enhanced transit to Sunriver, LaPine, Tumalo/Sisters, Redmond	Does not move the needle for Bend	CET plan
C-17	20 MPH speed limit on streets in and approaching downtown	Not currently permissible by the City	Address in policy within the TSP
C-18	Increase transit service frequency to 10 minutes	Beyond Greenwood and 3rd, not sufficient demand to	CET Plan

		warrant 10-minute headways	
C-22	Close at-grade US 97 connections and install on-ramp metering	ODOT Parkway Study will identify potential solutions in this area.	Support US 97 operational and safety managements improvements as defined by the ODOT Parkway Study (N-4).

Projects to Set Aside

Table 3: Projects to Set Aside

Number	Project	Rationale	Next Step
A-5	US 97/ Empire Ave Southbound off-ramp	Not consistent with the US 97 North Parkway FEIS and no significant traffic attraction	Eliminate from further consideration
A-7	US 97 North Interchange with connection to 18th Street	No significant traffic attraction	Eliminate from further consideration
A-16	Reed Market Road Railroad Overcrossing	More information needed to determine appropriate treatment for Reed Market Railroad crossing and switchyard delays	Future Study (C-24) to identify solution
B-7	Reed Market Road widening (from Century Drive to Bond Street)	ROW impacts would be significant	Eliminate from further consideration
B-11	Butler Market Road widening	No traffic attraction	Eliminate from further consideration
B-15	Reed Market Road widening and enhanced pedestrian and bicyclist facilities (from Bond Street to 3rd Street)	ROW impacts would be significant	Eliminate from further consideration
B-16	Reed Market Road widening and enhanced pedestrian and bicyclist facilities (from 3rd Street to 27th Street)	ROW impacts would be significant	Eliminate from further consideration
B-18	27th Street-Knott Road widening to 5 lanes (from US 97 to US 20)	No traffic attraction	Eliminate from further consideration
C-23	One way on Newport and Portland	Increases trip length and VMT, has impacts on downtown traffic	Eliminate from further consideration