



CITY OF REDMOND
Community Development Department

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REDMOND URBAN AREA PLANNING COMMISSION
716 SW Evergreen Ave Conference Room A

Monday, June 15, 2015

6:00 PM

Agenda

UAPC Members	
	I. CALL TO ORDER
Evan Dickens, Chair	II. CITIZEN COMMENTS
Dean Lanouette, Vice-Chair	III. WORK SESSION a. Finalize Workplan for FY16 b. Expanded Site Plan Review Options – Minor Site Plan c. Review TSP SOW d. Update on Parks Plan Update
David Allen	IV. COUNCIL LIASION COMMENTS (if present)
James Cook	V. COMMISSIONER COMMENTS
William Hilton	
Lori McCoy	VI. STAFF COMMENTS
Eric Porter	
Vacant Youth Ex Officio	VII. ADJOURN

*Please note that these documents are also available on the City's website www.ci.redmond.or.us; click on City Government, hover on Commissions and Committees, click on Urban Area Planning Commission. You may also request a copy from City Records Office 923-7751 or email KellyM@ci.redmond.or.us

Anyone needing accommodation to participate in the meeting must notify Jodi Burch, at least 48 hours in advance of the meeting at (541) 923-7735, or through the Telecommunications Relay Service (TRS) which enables people who have difficulty hearing or speaking in the telephone to communicate to standard voice telephone users. If anyone needs Telecommunications Device for the Deaf (TDD) or Speech To Speech (STS) assistance, please use one of the following TRS numbers: 1-800-735-2900 (voice or text), 1-877-735-7525 (STS English) or 1-800-735-3896 (STS Spanish). The City of Redmond does not discriminate on the basis of disability status in the admission or access to, or treatment, or employment in, its programs or activities.

**City of Redmond
Transportation System Plan Update
Draft SOW**

Background**Project Purpose**

The current City of Redmond Transportation System Plan (TSP) was adopted in 2008. This project will update the current TSP to reflect changes that have occurred in the City, Region, and State since 2008 and will provide a 20-year horizon for transportation planning. The project will update all elements of the TSP and may identify potential amendments to the Comprehensive Plan, City Development Code and other implementing documents.

Project Area

The project area encompasses the Redmond Urban Growth Boundary (UGB). Roadways included in the TSP update fall under multiple jurisdictions including the City, Deschutes County and the Oregon Department of Transportation (ODOT).

Problem Statement

In the seven years since the TSP's adoption, significant changes have occurred in the City and the state. The economy is recovering from the recession and economic growth is once again moving in a positive direction. State policies on land use and transportation have been revised to reflect more flexible standards and to align with state and local economic development goals. The TSP update will reflect these changes as it addresses current opportunities and challenges in the City including:

- The recognition that most significant solution in the 2008 TSP, the Redmond Reroute Phase 2, is not feasible in the foreseeable future due to its high cost (estimated at \$225 *million in 2008 dollars*) and the scarcity of federal transportation funding. In lieu of the realignment, US 97 will carry the 2040 forecasted traffic volumes on its current alignment;
- The existing US 97 South Redmond corridor is a critical element of Redmond's economic development and business access is a fundamental component of the corridor;
- The 2008 TSP identified a number of local network solutions that extend outside the UGB and cannot be implemented without Deschutes County land use actions and DLCD approval. The City is desirous of identifying viable transportation solutions that are fundable and can be implemented within the City's authority and jurisdictional boundaries.
- Elevating economic development considerations in the evaluation of transportation improvements;
- Incorporating pertinent plans and initiatives which have occurred since 2008 including the East Redmond Industrial Site and the attendant acceptance of alternative mobility standards, and the Trip 97 concepts for performance measures and funding options;

- Transportation system improvements are required to support industrial uses and the Updated TSP must address the freight needs of rail and truck operators.
- Evaluating opportunities to maximize the use of multimodal transportation options to reduce the need for vehicle trips by supporting compact development, multi-use trail planning and transit service expansion;
- Networks that provide safe and more comfortable access to and from schools, and bicycle/pedestrian connections to downtown are important for youths, aging populations, and the overall community. City desires to have continuous sidewalks and bike facilities which connect schools, businesses, recreation areas, grocery stores, government facilities and healthcare.
- Evaluating access management policies to ensure sufficient mobility and safety while meeting the needs of business and freight needs. Special attention will be given to the recent access management changes in state policy that reflect priorities tied to economic development; and
- Update the priority project list to reflect projects that are most relevant to the future needs of the City. The City has identified areas of focus for both community livability and economic development. These include:
 - Developing a medical district proximate to the St. Charles hospital;
 - Downtown circulation concepts;
 - South Redmond large-lot industrial opportunities; and
 - Creating transportation choices that align with the City's Great Neighborhood Principles.

Project Objectives

- Adopt an updated TSP that provides for a safe, efficient, multi-modal transportation network, based on the needs of existing and future land uses;
- Provide a data driven safety plan that focuses on reducing or eliminating fatal and serious injury crashes;
- Improve traffic circulation through the City including the local street network;
- Provide parallel routes to support the long-term function of highways and major roadways, particularly in the South Redmond corridor;
- Identify short and long-term transportation solutions that support economic development and redevelopment including Transportation System Management and Operations (TSMO);
- Evaluate the potential transportation needs of the economic development lands including industrial, mixed use and business districts, and identify solutions that will support the development of these sites;
- Determine the appropriate means for managing the state highways and major arterials to meet both local access and through traffic needs as well as improving safety and mobility for all users (auto, transit, bicyclists, pedestrians and motor carriers);
- Securing an intermodal network of safety and access for all types of users by developing plan elements that guide pedestrian and bicycle facilities to achieve maximum connectivity between bicycle, pedestrian, transit, and vehicle routes and facilities;
- Consider the needs of the travel disadvantaged in assessing both transportation needs and solutions;

- Review recent changes to the TPR and Oregon Administrative Rules related to access management and alternative mobility standards to identify potential opportunities to employ the use of alternative/local standards;
- Integrate concurrent, parallel planning efforts related to the US 97 South Redmond Corridor and Downtown circulation into the TSP.
- Develop TSP implementation policies which support a safe, convenient, and economical transportation system.

DRAFT

Detailed Work Tasks

Task 1: Project Management

Objective: To provide the project management tools necessary for a successful update of the TSP.

1.1 Project Management Team (PMT)

The PMT shall be shall comprised of City, ODOT and Consultant Project Managers and will manage the day-to-day tasks related to keeping the project on scope, schedule and budget.

1.2 Committee Rosters

City shall establish committee rosters for advisory committees including a Technical Advisory Committee (TAC) and a Project Advisory Committee (PAC):

- A.** TAC will provide the primary technical review and guidance for the project and should include representatives from:
- Redmond Planning and Public Works;
 - Redmond Public Safety;
 - DLCD;
 - Economic Development interests (EDCO, REDI, etc)
 - ODOT;
 - Deschutes County;
 - Others ...
- B.** PAC will provide input to the project from various community perspectives. The PAC may include representation from:
- Local business community;
 - City Planning Commission
 - City Council;
 - Redmond School District;
 - EDCO and/or REDI;
 - Redmond Airport;
 - Local and, if feasible, statewide trucking interests;
 - Railroad interests;
 - Cascades East Transit;
 - Transportation disadvantaged;
 - Title VI communities;
 - Others

1.3 Meeting Schedules

A. PMT Teleconferences/In person

Consultant shall arrange up to eight (8) teleconferences with PMT, both scheduled and as required to address specific issues. Dates and times of scheduled teleconferences will be determined at the Kick-Off Meeting. Consultant shall arrange a standard call-in number. Consultant shall develop an agenda for each teleconference, and shall disseminate the agenda to the PMT no later than the evening prior to the teleconference.

B. TAC/PAC

Consultant shall arrange TAC and PAC meetings; dates and times of scheduled meeting to be determined at the Kick-off Meeting.

1.4 Project Website

Consultant shall prepare and maintain a Project Website during the entire Project. Consultant shall coordinate with PMT to provide a linkage between the Project Website and City and ODOT websites. Consultant shall be responsible for all aspects of website, including: development, registration, hosting, gathering/monitoring of content, and controls, as required by, and subject to approval by City and APM. Project Website must include a disclaimer indicating that offensive or harmful language posted by public will be deleted. Project Website will be accessible within two weeks after the Kick-Off Meeting and remain active for a minimum of six months following Project completion.

Website must include, at a minimum: Draft and Revised Tech Memos; all maps and graphics developed for this Project in PDF or JPG format; and meeting information (times, locations, agendas, summaries, and materials).

Website must include an interactive on-line mapping tool element that allows the public to provide input and to pinpoint issues, ideas, and comments directly on a map of the Project Area.

1.5 Refined Project Schedule

Consultant shall prepare Refined Project Schedule and deliver to PMT within two weeks after Kick-Off Meeting in format agreed to by PMT. Where reasonable, Consultant shall schedule and perform tasks concurrently, to minimize time. As part of project management, Consultant shall update Refined Project Schedule as needed, at PMT request, and distribute updated schedule to PMT.

City Deliverables

- 1A Committee Rosters
- 1B Kick-off Meeting
- 1C PMT Teleconferences

Consultant Deliverables

- 1A Kick-Off Meeting
- 1B PMT Teleconferences (up to 6)
- 1C Project Website
- 1D Refined Project Schedule

Task 2: Background Plans and Policy Review

Objective: Assess existing plans, policies, standards, rules, regulations, and other applicable documents as they pertain to development of TSP update. Develop TSP goals, objectives and evaluative criteria.

2.1 Background Document

Upon request of Consultant, City and ODOT shall provide the most current version of the following documents in electronic format, as available:

- Oregon Administrative Rules (OAR) chapter 734 division 051
- Oregon Highway Plan
- North Redmond Interchange Area Management Plan
- Oregon Freight Plan
- Oregon Public Transportation Plan
- Oregon Rail Plan
- Oregon Aviation Plan
- Oregon Bicycle/Pedestrian Plan
- Oregon Transportation Safety Action Plan
- ODOT funding projections
- Statewide Planning Goals
- Statewide Transportation Improvement Program
- ODOT Highway Design Manual
- Oregon Roadway Departure Safety Implementation Plan
- Oregon Intersection Safety Implementation Plan
- Oregon Bicycle and Pedestrian Safety Implementation Plan
- Oregon Resilience Plan
- Cascades East Transit Transportation Plan
- Redmond Comprehensive Plan
- Redmond 2008 TSP
- Deschutes County 2012 TSP
- Ongoing amendments or updates to 2008 TSP project lists and costs
- Redmond Airport Master Plan
- Redmond Development Code
- City Buildable Lands Inventory
- City Economic Opportunities Analysis Report
- City's current and past budget for transportation
- City's current and historic funding and sources
- City Parks and Recreation District Master Plan

2.2 Draft Tech Memo #1: Plans and Policy

Consultant shall prepare Draft Tech Memo #1 to provide the baseline of existing plans, policies, standards, rules, regulations, and other applicable documents as they pertain to development of Updated TSP. Draft Tech Memo #1 is intended to guide later decisions regarding selection of preferred alternatives and necessary amendments to pertinent document and regulations. Draft Tech Memo #1 must summarize the applicability of Background documents to the Updated TSP.

Consultant shall submit Draft Tech Memo #1 to PMT for their review and comment. City and APM will submit comments to Consultant.

2.3 Draft Tech Memo: Analysis Methodology & Assumptions Memorandum

Consultant shall prepare and submit a draft and revised Tech Memo, Analysis Methodology & Assumptions Memorandum, for existing conditions, future conditions, and alternatives analysis to TPAU and PMT. Consultant shall obtain approval of methodology from TPAU and PMT prior to beginning analysis and revise memorandum accordingly.

2.4 Draft Tech Memo #2: Goals, Objectives, Evaluation Criteria

Consultant shall prepare Draft Tech Memo #3 to establish the goals, objectives, and evaluation criteria for later use in setting policy and selecting preferred alternatives. Goals, objectives, and evaluation criteria serve as the basis for the needs analysis, policy and ordinance development, and project selection. Additionally, these goals, objectives, and evaluation criteria must be structured in a way that informs relevant, strategic, actionable policies in support of Statewide Planning Goal 12 “to provide and encourage a safe, convenient, and economical transportation system” and to “facilitate the safe, efficient and economic flow of freight and other goods and services.”

Consultant shall review existing transportation policies and compare with project goals and outcomes. Consultant shall draft Policy revisions for consideration by the City, Agency, and TAC and PAC consistent with the community’s goals, as reflected in Draft Tech Memo #2.

Draft Tech Memo #2 must, at a minimum, address each of the objectives listed under “Project Objectives” above along with the objectives listed in the 2008 TSP and the Transportation element of the current Comprehensive Plan. Consultant shall submit Draft Tech Memo #3 to PMT for their review and comment. City and APM will provide comments to Consultant.

City Deliverables

- 2A Background Documents
- 2B Comments on Draft Tech Memos

Consultant Deliverables

- 2A Draft Tech Memos

Task 3: Transportation System Inventory and Existing Conditions Analysis

Objective: Establish a baseline understanding of the current City transportation system; identify opportunities, deficiencies, and solutions.

3.1 Transportation System Inventory

Consultant shall prepare Draft Tech Memo #3, an assessment of the existing conditions in the Project Area. Consultant shall inventory the existing transportation system within Project Area. Inventories must be presented in tabular Excel or GIS format, with a simple and concise accompanying narrative unless as otherwise noted below. This information may be obtained from the existing TSP, Comprehensive Plan and other sources. City and Agency may provide Consultant with additional information as needed. Inventory must include the following elements:

A. Lands and Population

Consultant shall identify existing, planned, and potential land uses, and environmental constraints to development, which are relevant to Redmond's transportation system. The population assumptions in the inventory will reflect the assumptions that we developed for the Bend-Redmond Travel Demand Model. The Land and Population Inventory must be consistent with acknowledged comprehensive plans and based on data assembled by the City that includes:

- In-process, developed, undeveloped, under-developed, and constrained lands that are undevelopable;
- Comprehensive Plan designations and zoning;
- Natural resources and environmental barriers;
- Activity centers that are likely destinations for bicyclists and pedestrians, such as schools, parks, commercial centers, and neighborhood centers;
- Location of minority and transportation-disadvantaged populations; and
- Historic and projected population growth patterns.

B. Roadway System Inventory

Consultant shall inventory existing road system characteristics to establish a baseline for comparison with future needs. The inventory must be based on GIS data, as available, provided by ODOT and City. Where GIS data is not available or applicable, data will be provided in an Excel database. Road system inventory must include:

- Facility functional classifications for state and local roads
- Jurisdictional responsibility for state and local roads
- State highway approach permits along state highways within city limits.
- State highway log data
- Geometry for Project Area intersections (Consultant shall assemble)
- Number and width of study intersection lanes (Consultant shall assemble)
- Signal locations (Consultant shall assemble)
- Posted speed limits
- Pavement types and conditions
- Street locations on the local system
- For state, city and local streets in downtowns or business areas, on-street parking locations and utilization
- Park and ride locations
- Right of way widths
- Intelligent Transportation System facilities
- Culverts
- Intermodal connections and facilities
- National, state, regional, and local freight and motor carrier routes
- ORS 366.215 Routes (No reduction of capacity)
- National highway system facilities
- Americans with Disabilities Act accessible public sidewalk impediments (i.e. driveway aprons, public sidewalks)

C. Bridge Inventory

Consultant shall inventory the City bridges and provide a brief summary of bridge conditions using the ODOT Bridge Management System. Inventory summary shall include a review of the Oregon Resiliency Plan. ODOT shall assist City with bridge inventory summary as needed. This is intended to summarize prior bridge analysis and conditions assessments.

D. Public Transit Inventory

The Consultant shall inventory the public transportation system based on data provided by City, Cascades East Transit and ODOT including:

- Existing routes and circulation;
- Location of bus stops;
- Connectivity with other transit facilities;
- Paratransit demand and accessibility; and
- Community need.

E. Rail Inventory

The Consultant shall inventory rail system characteristics, including:

- Type of service (passenger or freight);
- Owner/operator of rail line;
- Location of rail lines and terminals;
- Proximity to the highway;
- Classification of the lines;
- Number of trains/schedule;
- Industries served and commodities handled;
- Track conditions;
- Train speeds;
- Crossing locations and known issues (e.g. unprotected crossings);
- Road impact if service is discontinued; and
- Potential for rail banking, trail use, or public use.

F. Bicycle/Pedestrian Inventory

Consultant shall inventory bicycle and pedestrian system characteristics to provide a comprehensive portrait of multi-modal infrastructure and overall interconnectedness between these modes. The inventory must be based on data provided by the City and ODOT in Excel or GIS format, including:

- Bicycle facility types, locations, geometry, conditions, and use;
- Pedestrian facility types, locations, geometry, and use;
- Crosswalk locations, conditions, and use;
- Wheelchair ramp locations, conditions (include Americans with Disabilities Act compliance), and use;
- Consistency of facilities with state/regional standards;
- Commute/recreational use of bicycle facilities;
- Commute/recreational use of pedestrian facilities; and

- Location/trip characteristics of major bicycle/pedestrian generators.

G. Air Transportation Inventory

Consultant shall inventory air system including, as available:

- Airport location and use;
- Airport imagery surfaces;
- Airport protected surface area;
- Runway length/condition;
- Surrounding land uses/zoning; and
- Types of service.

H. Freight Generators Inventory

The consultant shall inventory the major freight generators in the planning area. Freight generators are the industrial areas, distribution centers, truck terminals and businesses that ship or receive a significant amount of freight. The Freight Generators Inventory could be based on data assembled by the City, Chamber of Commerce, ODOT or Oregon Employment Department and include:

- General information and mapped location of major freight generators;
- Major commodities shipped or received;
- Intermodal facilities and linkages; and
- Connector roads connecting to intermodal facilities or to major freight generators;

I. Funding Inventory

City shall provide the Consultant with history of all existing revenue streams with a ten year history of trends including:

- Transportation revenues received from the state;
- Local transportation revenues; and
- System Development Charges and other revenue from development.

3.2 Existing System Conditions Analysis

Consultant shall analyze current conditions and identify deficiencies of the transportation system based on policies, standards, goals and objectives developed in Tech Memos 1–3. Analysis must include:

A. Traffic Counts

TPAU has developed a 2040 Bend-Redmond travel demand model which will be utilized for this project. Additional traffic counts may be needed_[A1]

B. Intersection Operations Analysis

Consultant shall use ODOT geometric and operational design standards for state facilities and Redmond design standards for City facilities. Consultant shall perform traffic analysis of the City's transportation system and identify existing deficiencies. All analyses must focus on evening commute period conditions unless otherwise discussed and agreed with Consultant team, City and ODOT. Operational analysis for study intersections, regardless of jurisdiction, must include:

- Volume-to-Capacity ratio

- Level-of-service
- Delay
- 95th percentile queuing (not simulation-based)
- Turning movements

C. Active Transportation Analysis – Primary non-motorized transportation facilities

Consultant shall perform analysis of primary non-motorized transportation facilities. Analysis must include availability of sidewalks, bicycle lanes, transit routes and facilities, and gaps in primary routes and intermodal opportunities. Analysis must include:

- Availability of sidewalks and bicycle lanes
- General condition of existing sidewalks and bicycle lanes
- Bicycle Level of Traffic Stress (LTS) as per Agency's Analysis Procedure Manual v2
- Qualitative (multimodal) Assessment for pedestrian and transit modes. Guidance is available in Agency's Analysis Procedure Manual v2.
- A qualitative assessment of transit service and identification of underserved areas.
- Gaps in intermodal connectivity

D. Crash Analysis

Consultant shall obtain the most recent available five years of crash data from ODOT's Crash Analysis and Reporting Unit for study segments and intersections in the Project Area. Consultant shall assemble an inventory and identify crash patterns in the history of collisions on the transportation system among all users (e.g. trucks, autos, pedestrians, bicyclists). The inventory must include:

- Location;
- Crash type and characteristics;
- Severity (property damage, injury, or fatality);
- Summary review of pedestrian/bicycle crashes; and
- Summary review of fatal crashes.

Consultant's data for state highways must include locations of Top 5% or 10% Safety Priority Index System sites. Consultant shall calculate study intersection crash rates and compare with Highway Safety Manual Part B critical crash rates and published 90th percentile rates in Table 4-1 of the Agency's Analysis Procedure Manual. Project-area K-factors from 12+ hour counts shall be used to convert short duration counts to daily traffic approach volumes. Consultant shall calculate the crash rate of study segments and compare to Table II in the statewide Crash Rate Book to identify study segments with more crashes than other similar facilities in Oregon. For all areas that exceed the critical crash rate, 90th percentile rate, or the Table II rate, Consultant shall identify and present crash patterns and potential countermeasures/safety improvements at intersections that exceed the statewide crash rate performance threshold. Consultant shall use HSM Crash Modification Factors for summarizing the potential crash reduction of each improvement. All Crash Modification Factors shall have a star rating of 3 or better from the HSM Crash Modification Factors Clearinghouse and must have consistent volumes/parameters with the TSP analysis. Summary crash data, including crash rates must be documented.

E. Bridge Conditions Analysis

ODOT shall provide a generalized summary analysis of bridge conditions using the ODOT Bridge Management System and the Oregon Resiliency Plan. This is intended to integrate prior bridge analyses, conditions assessments, and current inventory to provide a prioritized list of bridge maintenance or improvement needs. The Bridge Conditions Summary should be provided in a three to five page memorandum, including tables with prioritized projects and planning-level project cost estimates.

F. Access Management Analysis

Consultant shall identify existing access management standards as defined in OAR 734 and City standards, and review existing City arterials and collectors adjacent to study intersections identifying general corridor areas with substantial violations of jurisdictional access management standards.

G. Environmental Justice Analysis

Consultant shall identify the socio-economically sensitive populations within City using 2010 Census data. The Environmental Justice mapping is for the purposes of meeting the City's needs and avoiding undue adverse impacts when examining future projects and needs and must consist of maps and brief text identifying the locations of the following socio-economically sensitive populations:

- Minority groups (all persons who did not self-identify as white, non-Hispanic);
- Low-income (persons who earned between 0 and 1.99 times the federal Poverty Level in 1999);
- Elderly persons (persons 65 years of age or older in 2010);
- Youth (persons 16 years of age or younger in 2010);
- Non-English speakers (people who stated that they didn't speak any English at all in 2010); and
- People with disabilities (all persons 5 years or older with any type of disability: sensory, physical, mental, self-care, go-outside-the-home or employment).

Consultant shall submit Draft Technical Memo #3 to PMT for review and comment. A revised draft will be submitted to the TAC and PAC one week prior to Joint TAC and PAC Meeting #1 after receiving comments from the PMT.

3.3 Public Involvement – Joint TAC and PAC Meeting #1

City shall arrange and Consultant shall prepare supporting materials and facilitate Joint TAC and PAC Meeting #1. The purpose of Joint TAC and PAC Meeting #1 is to provide an orientation to Project, consider the draft project goals, objectives, and evaluation criteria in Final Tech Memo #1, Revised Tech Memo #2, and review the existing conditions in Draft Tech Memo #3. Consultant shall prepare meeting schedule, agendas, and materials for Joint TAC and PAC meeting and meeting minutes afterwards.

3.4 Public Presentation #1

City shall arrange and Consultant shall conduct a Public Presentation summarizing key project findings to date. Consultant shall prepare presentation, present materials, and answer questions. Consultant shall provide input opportunities for attendees and

summarize input received. Public Presentation must be conducted during the same trip as Joint TAC and PAC Meeting #1.

3.5 Final Tech Memos #2 and #3

Consultant shall review comments received from PMT, TAC and PAC within one week after Public Presentation #1, and during the Public Presentation. Consultant shall revise Tech Memo #2 and Tech Memo #3 accordingly. Consultant shall post Final Tech Memos #2 and #3 to Project Website within two weeks of receiving comments.

City Deliverables

- 3A Inventory Documents
- 3B Comments on Draft Memos
- 3E Joint TAC and PAC Meeting #1
- 3F Public Presentation #1

Consultant Deliverables

- 3A Draft Tech Memo #3
- 3B Joint TAC and PAC Meeting #1
- 3C Public Presentation #1
- 3D Final Tech Memos #2 and #3

Task 4: Future Conditions Analysis and Alternatives Development

Objective: Baseline year 2040 system conditions to identify deficiencies and needs and potential solutions, and to develop information upon which City may make future transportation decisions.

4.1 Tech Memo #4 – Future Systems Conditions

Consultant shall prepare Draft Tech Memo #4, an assessment of land use and transportation future conditions in the Project Area under a “no-build” scenario. Consultant shall rely only on planned transportation improvements that have an identified and committed funding source, in preparing the “no-build” scenario (e.g. are in the Statewide Transportation Improvement Program). Draft Tech Memo #4 must include the elements listed below:

a) Population and Employment Forecasts

Consultant shall summarize the future population and employment data used in the 2040 Bend-Redmond travel demand model.

b) Future No-build Scenario

Consultant shall prepare traffic analysis under a no-build scenario for both automobile and non-automobile transportation. The no-build scenarios must follow the same format as in Tech Memo #3 and contain volume-to-capacity ratio, Level of Service, and turning movements, shown on figures. Consultant shall conduct a qualitative multimodal analysis assessment and Bicycle Level of Traffic Stress for the Project Area similar to Tech Memo #3, only on roadway and roadway sections that would change based on planned -future projects or be impacted by a significant change in future traffic volumes and conditions.

Future no-build traffic volumes must be generated by Redmond 2040 Travel Demand Model and supplied to the Consultant by TPAU. Consultant shall submit a completed TPAU model request form available at:

<http://www.oregon.gov/ODOT/TD/TP/Pages/Tools.aspx>. Consultant shall allow at least three weeks between the time the request is submitted and when the information is needed. Consultant shall post-process the data.

c) Future Deficiencies

Consultant shall identify projected future transportation system deficiencies. Deficiencies include both the failure to meet measurable standards identified in Tech Memo #1, and the failure to satisfy the goals, objectives, and evaluation criteria identified in Tech Memo #2. Consultant shall clearly describe each deficiency. Consultant shall submit Draft Tech Memo #4 to PMT for review and comment. City and APM will submit comments to Consultant.

4.2 Draft Tech Memo #5: Alternatives Analysis and Funding Program

Consultant shall prepare Draft Tech Memo #5 identifying up to three alternative solution packages that address the identified deficiencies and needs. Alternatives must address the standards, goals and objectives identified in previous Tech Memos. Consultant shall coordinate with TPAU and amend the Analysis Methodology and Assumption Memorandum, if necessary, on the potential of the solution packages requiring new travel demand model runs and volume post-processing.

Consultant shall provide an evaluation matrix for the alternative solutions, utilizing the evaluation criteria identified in Tech Memo #2. For road improvements, the evaluation matrix must include volume to capacity, Level-of-Service, and cost. Multimodal improvements must include qualitative assessment levels and Level of Traffic Stress.

Consultant shall estimate conceptual construction costs for up to three build scenarios. Cost estimates must be planning-level cost estimates, based on year 2015 dollars, and referenced to appropriate escalation factors.

Draft Tech Memo #5 must include the elements listed below:

a) Identification of Auto-Related Alternatives

Consultant shall prepare proposed solutions to identified deficiencies for automotive traffic. Consultant shall make a list of recommended changes to street classifications, with supporting rationale.

b) Access Management and Spacing

Consultant shall recommend future access management strategies and identify opportunities to improve access management, as well as recommending strategies to adjust current access points based on the OAR Chapter 734 Division 051, and City access goals and ordinances. Specific driveway closures will not be recommended in the TSP.

c) Bicycle and Pedestrian Connectivity

Consultant shall recommend connectivity improvements to the City's existing bicycle and pedestrian network, particularly routes that connect to schools, parks and commercial centers. Consultant shall recommend future bicycle and pedestrian network extensions within the Project Area or connecting to existing facilities in adjacent areas.

d) Transit

Consultant shall recommend connectivity and accessibility improvements to the City's existing transit routes and facilities and recommend future transit routing extensions into and beyond the Project Area. Consultant shall use the Transportation and Growth Management publication "Transit in Small Cities: A Primer for Planning, Siting and Designing Transit Facilities in Oregon" to make recommendations about proposed transit facilities and improvements.

e) Intermodal Route Connectivity

Consultant shall recommend intermodal connectivity improvements between the City's existing bicycle and pedestrian networks, as well as any anticipated transit facilities. Consultant shall recommend future bicycle, pedestrian, and transit network improvements into and beyond the Project Area in a way that supports intermodal connectivity.

f) Multi-Use Trails

Consultant shall incorporate the existing multi-use trails system and park trail system plans into the planned system. Consultant shall provide recommendations to improve connectivity to the existing trails system and identify potential future connectivity to multi-use trail system locations within the Project Area.

g) Freight

Consultant shall identify the major freight issues in the Project Area including accessibility, mobility, safety and freight passage through, into, and from the City with an emphasis on intermodal connections. Consultant shall recommend freight route improvements (including rail) to the existing transportation system and future freight route improvements to accommodate future land use and transportation system changes. This task includes identifying problem areas such as access issues, roadway constraints, turning radii at intersections, weight restricted bridges, vertical clearance constraints and truck loading zone issues. Consultant shall identify a local truck route based on the locations of the freight generators identified in the inventory section above, roadways with above average truck traffic and Oregon Highway Plan Freight Routes. Include connector roads to intermodal facilities as part of the local truck route.

h) Safe Routes To Schools

Consultant shall identify potential alternative connective routes, facility enhancements, and crossing treatments that would improve student safety when walking or biking to school. Consultant shall document these identified alternatives, enhancements, and treatments in a format that can be integrated into the Updated TSP and that can also be crafted to address the needs of future "Safe Routes to Schools" programs. Consultant shall identify school siting and site design factors that enhance accessibility for pedestrian, bicyclist and transit users.

i) Safety

Consultant shall identify study intersections or segments where countermeasures could be applied to reduce crash frequency to mitigate increases in crashes associated with increased traffic volume or future roadway projects. Consultant shall identify CMFs associated with each countermeasure to provide an estimate of the potential change in crash frequency, based on CMFs from the Highway Safety Manual or FHWA's online CMF Clearinghouse with a star rating of 3 or better.

j) Local Street Connectivity and Extension Plan

Consultant shall assess local street alignment and connectivity in several areas of the City where the local street alignment influences future development of these areas, consistent with the local street grid pattern. Consultant shall depict future local street connections in these areas on a map and in text.

k) Airport

Consultant shall evaluate potential freight, transport, passenger, and any other relevant multi-modal uses of the Airport.

l) Funding Programs

Consultant shall prepare a comprehensive list of funding options for consideration by City. Funding options section must include a summary of historic and existing City transportation funding sources (as summarized in Tech Memo #3) and obtain projected transportation funding and revenue from the City. Funding options must include all funding sources available to City in a matrix form, and a brief narrative explaining each option.

Consultant shall prepare a future transportation funding plan based on the current and historic transportation funding information in Tech Memo #3 and consistent with Step 15 of Transportation System Planning Guidelines 2008 and ODOT directive, PB-03, Financial Feasibility in System Planning. Financial Feasibility will help clarify system management and plan implementation objectives.

m) Development Code Amendments

Consultant shall prepare a list of amendments to City's development code to implement the goals and policies identified in Task 2 and must comply with OAR 660-012-0045.

Consultant shall submit Draft Tech Memo #5 to PMT. City and APM will submit comments to Consultant.

4.3 Joint TAC and PAC Meeting #2

City shall arrange and Consultant shall prepare supporting materials and facilitate Joint TAC and PAC Meeting #2. The purpose of Joint TAC and PAC Meeting #2 is to review and discuss the future baseline transportation conditions and potential alternative solution packages in Draft Tech Memo #5. Consultant shall prepare meeting schedule, agendas, and materials for TAC and PAC Meeting #2 and meeting minutes afterwards.

4.4 Public Presentation #2

City shall arrange and Consultant shall conduct a Public Presentation (approximately 15 to 20 slides) summarizing key project findings. Consultant shall prepare presentation, present materials, and answer questions. Public Project Presentation #2 must be conducted during the same trip as Joint TAC and PAC Meeting #2.

4.5 Final Tech Memos #4 and #5

Consultant shall revise Draft Tech Memos #4 and #5 incorporating comments received. Consultant shall post Final Tech Memos #4 and #5 to Project Website within two weeks of receiving comments and submit any requested GIS files to PMT.

City Deliverables

- 4A Joint TAC and PAC Meeting #2
- 4B Public Presentation #2
- 4C Comments on Draft Tech Memo #4
- 4D Comments on Draft Tech Memo #5

Consultant Deliverables

- 4A Draft Tech Memo #4
- 4B Draft Tech Memo #5
- 4C Joint TAC and PAC Meeting #2
- 4D Public Presentation #2
- 4E Final Tech Memos #4 and #5

Task 5: Identification of Preferred and Cost-Constrained Alternatives

Objective: To identify preferred and cost-constrained alternatives.

5.1 Draft Tech Memo #6: Preferred Alternatives

Consultant shall prepare Draft Tech Memo #6, identifying preferred and cost-constrained alternatives. Consultant shall develop Draft Tech Memo #6 based on prior work in this Project, 2008 TSP, and input received from PMT, TAC and PAC. Draft Tech Memo #6 must include the elements listed below.

a) Selection of Preferred Alternatives

Identify a preferred alternative for each deficiency or need and, if different, a cost-constrained alternative for each deficiency or need taking into account expected funding levels. Identification of Alternatives must include, in addition to those elements required by the TPR, the following elements:

- A prioritized list of projects for walking, bicycling, transit, and motorized vehicles including freight.
- Projects necessary to reduce transportation barriers to key development and redevelopment areas.
- Corridor improvement needs for US 97 and OR 126 within the project area.
- Access Management Strategies for City/County/State arterials and collectors.
- Identification of improvements that could be incorporated into a future “Safe Routes to Schools” plan including school siting policies.

- Planning-level cost estimates referenced to an appropriate escalation factor for updates.

b) Future Transportation Funding Plan

Prepare a future transportation funding plan based on current and historic transportation funding information in Tech Memo #3. The TSP shall be based on financial feasibility but may include illustrative projects that are beyond assumed constrained funding levels.

Consultant shall submit Draft Tech Memo #6 to PMT in electronic format and also up to 20 hardcopies. City and APM will provide comments to Consultant.

5.2 Joint TAC and PAC Meeting #3

City shall arrange and Consultant shall prepare supporting materials and facilitate Joint TAC and PAC Meeting #3. The purpose of Joint TAC and PAC #3 meeting is to discuss potential preferred alternatives in Draft Tech Memo #6. Consultant shall prepare meeting schedule, agendas, and materials for TAC and PAC Meeting #3 and meeting minutes afterwards.

5.3 Final Tech Memo #6

Consultant shall revise Draft Tech Memo #6 incorporating comments received. Consultant shall post Final Tech Memo #6 to Project Website within two weeks of receiving comments.

City Deliverables

5A Comments on Draft Tech Memo #6

5B Joint TAC and PAC Meeting #3

Consultant Deliverables

5A Draft Tech Memo #6

5B Joint TAC and PAC Meeting #3

5C Final Tech Memo #6

Task 6: Draft Updated TSP, Implementing Ordinances and Findings

Objective: To prepare a Draft TSP, Implementing Ordinances and Findings

6.1 Draft TSP

Draft Updated TSP incorporating earlier Tech Memos and additional comments received during the review process. Draft Updated TSP must include maps showing each updated future network and a comprehensive map showing all networks; prioritized list of multi-modal projects with escalation factor estimates; project summary prospectus sheets, including project costs, location map, and cross-section; and access spacing standards. Draft Updated TSP must summarize the following in either the report body or appendix:

a) Transportation System Summary

- Inventory of entire transportation system for all modes of travel

b) Transportation Goals, Plans, and Policies

- Survey of state, regional, and local plans, policies, rules and regulations.
- Goals and objectives supporting the community's vision.

- A discrete, actionable set of policies which capture the opportunities and strategies supporting an Updated TSP and otherwise reflect the intent of Goal 12 “to provide and encourage a safe, convenient, and economical transportation system.”
- c) Existing Conditions
- Analysis of existing traffic conditions for all modes of travel: volumes, Level-of-Service, turning movements, mobility, and safety for all through streets and intersections. Areas of significant stacking (including at commercial driveways) or traffic safety concerns.
- d) Future Demand and Land Use
- Existing and future land uses to estimate traffic generation in the community, as well as future through traffic. Trip distribution, including estimates of trip ends per land use type, total annual trip ends and summer peak trip ends.
- e) Safety Plan
- A Safety Plan that aligns with current goals in the Oregon Transportation Safety Action Plan and identifies cost-effective opportunities to obtain Highway Safety Improvement Program funding to reduce fatal and serious injury crashes through the ODOT All Roads Transportation Safety Program.
- f) Pedestrian Plan
- A Pedestrian Plan aligned with current intermodal policy goals.
 - Examination and analysis of existing facilities. Recommendations for improvements and design standards. Focus on safety and gaps in the pedestrian network.
 - Comprehensive and prioritized list of improvements, including itemized preliminary engineer’s estimates; special emphasis must be placed on connectivity among primary pedestrian facilities and intermodal linkages.
- g) Bicycle Plan
- A Bicycle Plan to better align with current intermodal policy goals.
 - Examination and analysis of existing facilities. Recommendations for improvements and design standards. Focus on safety and gaps in the bicycle network.
 - Comprehensive and prioritized list of improvements, including itemized preliminary Engineer’s Estimates; special emphasis must be placed on connectivity among primary bicycle facilities.
- h) Transit Plan
- Examination and analysis of existing facilities. Recommendations for improvements and design standards. Focus on safety, gaps in the system and intermodal linkages with the pedestrian and bicycle networks.
 - Comprehensive and prioritized list of improvements, including itemized preliminary engineer’s estimates.
 - Analysis and recommended improvements must reflect current intermodal policy goals.
- i) Motor Vehicle Plan (including Transportation System Management and Truck Freight

Plan)

- Proposed changes and improvements to best accommodate vehicle traffic within the existing constraints and long-term vision of the City.
 - Focus on impacts to businesses, particularly in the downtown.
 - Potential to add pedestrian improvements, landscaping features, and traffic calming measures.
 - Traffic calming measures particularly in downtown, mixed-use areas, areas of high bicycle and pedestrian traffic, and residential areas. Measures must take into account winter maintenance activities and freight access and mobility.
 - Comprehensive and prioritized list of improvements, including itemized preliminary engineer's estimates.
- j) Other Modes Plan (Air, Rail, Water, Pipeline)
- Survey of other transportation modes.
- k) Sustainability Plan
- Policies supporting community's vision regarding sustainability, including Transportation Options and reduction of the carbon footprint.
- l) Funding and Implementation
- Examination of historic funding sources and potential future funding sources.

Consultant shall submit Draft Updated TSP (60-80 pages) to PMT in electronic format and also up to 20 hardcopies. City and APM will provide comments to Consultant.

6.2 Draft Policy Amendments, Implementing Ordinances and Findings

Consultant shall prepare Draft Implementing Ordinances, specifically amendments to the Land Use Development Ordinance, necessary for implementing the Draft Updated TSP and its policies and recommendations. Consultant shall prepare a city-review draft document with findings addressing State transportation planning requirements, including Transportation Planning Rule findings, to support adoption of Draft Updated TSP by City. Consultant shall submit Draft Implementing Ordinances and Draft Findings to PMT.

6.3 Joint TAC and PAC Meeting #4

City shall arrange and Consultant shall prepare supporting materials and facilitate Joint TAC and PAC Meeting #4. The purpose of Joint TAC and PAC Meeting #4 is to review and discuss the Draft Updated TSP and Draft Implementing Ordinances. Consultant shall prepare meeting schedule, agenda, and materials for TAC and PAC Meeting #3 and meeting minutes afterwards.

6.4 Adoption Draft Updated TSP, Adoption Draft Implementing Ordinances and Final Findings

Consultant shall revise Draft Updated TSP, Draft Implementing Ordinances, and Draft Findings, incorporating comments received from PMT, TAC and PAC. Consultant shall submit five bound "hard" copies of the documents to City, and one bound "hard" copy to ODOT. Consultant shall submit electronic copies to City and ODOT.

6.5 Department of Land Conservation and Development Notice

City shall submit a copy of the Adoption Draft Updated TSP to the Department of Land Conservation and Development at least 35 days prior to the first evidentiary hearing as directed by Oregon Revised Statutes 197.610 and OAR 660-018-020.

City Deliverables

6A Comments on Draft Updated TSP and Draft Implementing Ordinances

6B Draft findings addressing local ordinance requirements

6C Joint TAC and PAC Meeting #4

6D Department of Land Conservation and Development Notice

Consultant Deliverables

6A Draft Updated TSP

6B Draft Policy Amendments, Implementing Ordinances and Findings

6C Joint TAC and PAC Meeting #4

6D Adoption Draft Updated TSP, Adoption Draft Implementing Ordinances and Final Findings

Task 7: Adoption

Objective: To adopt Updated TSP and associated Implementing Ordinances

7.1 Joint Planning Commission and City Council Work Session

City shall arrange and conduct Planning Commission and City Council Work Session for presentation of Adoption Draft Updated TSP, Adoption Draft Implementing Ordinances, and Final Findings. Consultant shall attend Joint Planning Commission and City Council Work Session to present documents and answer questions.

7.2 Planning Commission Hearing

City shall arrange and conduct Planning Commission Hearing for presentation of Adoption Draft Updated TSP, Adoption Draft Implementing Ordinances, and Final Findings. Consultant shall attend hearing to present documents and answer questions.

7.3 City Council Hearing

City shall arrange and conduct City Council Hearing for presentation of Adoption Draft Updated TSP, Adoption Draft Implementing Ordinances, and Final Findings for approval and adoption. Consultant shall attend hearing to present documents and answer questions.

7.4 Final Updated TSP and Final Implementing Ordinances

Consultant shall revise Adoption Draft Updated TSP and Final Implementing Ordinances to reflect City Council actions. Consultant shall submit one bound “hard” copy and one electronic copy of the Final Updated TSP and Final Implementing Ordinances to Department of Land Conservation and Development. Consultant shall submit three bound “hard” copies and one electronic copy of the Final Updated TSP and Final Implementing Ordinances to City.

Consultant shall submit two bound “hard” copies and one electronic copy of the Final Updated TSP and Final Implementing Ordinances to ODOT.

7.5 Title VI Report

Consultant shall prepare and submit to ODOT and City a report delineating Title VI activities, documenting project process and outreach for all low income, race, gender, and age groups.

City Deliverables

- 7A Joint Planning Commission and City Council Work Session
- 7B City Planning Commission Hearings
- 7C City Council Hearing

Consultant Deliverables

- 7A Joint Planning Commission and City Council Work Session
- 7B City Planning Commission Hearing
- 7C City Council Hearing
- 7D Final Updated TSP and Final Implementing Ordinances
- 7E Title VI Report

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