



Tualatin Transportation System Plan

Scope of Work

We are pleased to present a Scope of Work for the completion of Tualatin's Transportation System Plan. As described below, the Fehr & Peers Team is positioned to help Tualatin create its 2024 TSP through an approach that features an inclusive community outreach process; integrated, thoughtful modal planning; a strong emphasis on equity; and the development of an actionable plan that advances Tualatin's values and priorities through strategic investments in project and programs.

Task 1 - Project Management

The objective of this task is to oversee project schedules, deliverables, and budget, and to establish consistent lines of communication between city staff and the project consulting team. The Consultant Project Manager will be responsible for proactively managing the tasks and providing all services and work needed to complete the project. The Consultant Project Manager will proactively communicate any potential schedule impacts due to outstanding data needs or decisions made by City Staff.

1.1 Project Plan

Prior to the project kickoff Fehr & Peers will draft a project plan that will include a detailed schedule with deliverables and anticipated dates for public and stakeholder outreach. This will include planned touchpoints with the Technical Advisory Committee (TAC) and Community Advisory Committee (CAC) to support development of the TSP, Planning Commission, and City Council. The schedule will identify tasks that are flexible and could be used to maintain project momentum in the event that technical tasks, data, and/or policy direction take longer than anticipated. The plan will also identify how an equity lens could be applied at key stages of the project to ensure that equity is at the forefront of all our work.

Key Deliverables

- Project Plan that details schedule and deliverables

1.2 Kick Off Meeting

Representatives from Fehr & Peers, Alta, and Community Engagement Liaisons will attend a virtual 1.5 hour kickoff meeting with the City project management team at the start of the project to review the project plan and confirm project scope, schedule, budget, and deliverables to ensure a shared understanding of expectations and roles. The kick-off meeting will also be an opportunity to establish communication protocols, identify risks, and discuss potential mitigation strategies. Details of our approach to public



engagement will be discussed during the kickoff to ensure that key engagement milestones are part of the project schedule.

Key Deliverables

- Kickoff meeting agenda
- Meeting presentation
- Meeting notes

1.2 Bi-Weekly Check-In Calls and Invoicing

The Fehr & Peers project manager will facilitate 30-minute bi-weekly virtual meetings with the Tualatin project management team to discuss project updates, issues, and deliverables. These check-ins are expected to occur between May 2023 and November 2024. Meeting agendas will be sent out prior to these calls and we will keep notes of the discussion and next steps to be shared with the PMT after the calls. Fehr & Peers will also provide monthly progress reports documenting the status of both scope progress and budget.

Key Deliverables

- 32 check-in calls
- Meeting agendas and notes
- Monthly invoices with progress reports

Task 2 – Goals and Objectives

This task will focus on developing Goals and Objectives for the TSP that align with the Tualatin's priorities and local, regional, and statewide policy. This task will include vetting of existing TSP goals to identify where updates are needed and gathering input from the community, stakeholders, and City staff to ensure that the Goals and Objectives will bring Tualatin's vision for transportation to fruition.

2.1 Priorities Workshop

The consultant team will lead a virtual 1.5-hour priorities workshop that engages a broad cross-section of staff (public works, planning, finance, parks, city administration, etc.). This workshop will focus on affirming and/or updating the seven goals and associated objectives in the 2013 TSP. This discussion will be informed by a review of related transportation and land use policies and actions taken since adoption of the TSP.

Key Deliverables

- Workshop meeting agenda
- Workshop presentation
- Workshop summary notes

We will take the results of the Priorities Workshop to the TSP committees for review and input, followed by broader public information and input opportunities as described in Task 3.

2.2 Policies & Practices Audit

Broad community discussion tends to be less effective at the policies and practices level. To identify where updates are needed, we will review the 2013 TSP, 2023 Climate Action Plan, Parks & Recreation Master Plan, and up to five other existing local, regional, and state plans and policies to summarize:

- How a given planning document, requirement, policy, or recent update is relevant to the TSP.
- How well these established policies address key areas of interest to the City, such as equity, safety, and climate.
- Potential issues or conflicts to address.
- What types of elements may be needed in the updated TSP or implementing documents to address identified conflict areas.
- Compatibility of the TSP update with state, regional, and local plans and regulations

As a part of this task and to meet the requirements of the Transportation Planning Rule (TPR), the consultant team will review the 2023 Regional Transportation Plan's transportation performance measures and regional targets and suggest targets for the City to adopt that are consistent with the RTP and the City's stated goals. These targets will be incorporated into the TSP policies and final report.

An updated list of policies will be created for City staff and stakeholder review and discussed during a virtual staff workshop. Final policies will be drafted and incorporated into the draft and final TSP document.

Key Deliverables

- Draft Policies and Practices Audit memo
- Final Policies and Practices Audit memo
- Policies workshop agenda and notes
- Draft TSP policies
- Final TSP policies

Task 3 – Stakeholder and Community Outreach

Alta will lead the public engagement work for the TSP and will be supported by Community Engagement Liaisons. The public engagement strategy will be designed to elicit diverse participation and actively engage the Tualatin community, City Council members, priority-equity communities, and other key stakeholders.

3.1 Public Involvement Plan Development

The consultant team will develop a comprehensive and equitable Public Involvement Plan using a range of tools, strategies, and methods to reach out to a broad range of participants. The plan will outline in detail the activities, events, and communication strategies for the project, outlining the activities the consultant

team will carry out within the contracted budget. It will outline goals for engagement, particularly regarding achieving equitable outcomes.

This plan will be developed at the start of the project so that engagement efforts can be coordinated with key project milestones.

Key Deliverables

- Draft and final Public Involvement Plan

3.2 Stakeholder Outreach

The TSP stakeholder outreach is envisioned to include development of a Technical Advisory Committee. The TAC would be comprised of representatives from public agency stakeholders in the project area such as neighboring cities, counties, and TriMet. The committee would be engaged to provide input on:

- TSP Goals (task 2),
- the results of the technical analysis (task 4), and
- development of the project list (task 6).

The consultant team will lead creation of presentation materials, handouts, and agendas for these meetings and workshops. While the City will lead recruiting of TAC members and generally building the contact list for the project, the consultant team will recommend ways to broaden the contacts beyond the groups of people already connected with City of Tualatin business and projects.

Key Deliverables

- Compilation of the TAC roster
- Organization of at least three TAC meetings
- Presentation materials and agendas
- Summary notes

3.3 Community Outreach

We know that equitable public engagement is a key priority for this TSP. To achieve that, this task will encompass multiple avenues of engagement to ensure that we reach a wide range of residents. The community outreach will prioritize framing transportation issues around people's experiences, challenges, and things they wonder about, instead of expecting the public to absorb the official policy and rules.

Online Engagement:

Early in the project Fehr & Peers will create a project website that can host project updates and interim deliverables, and which can be used to solicit and summarize online feedback. Two online surveys and bi-monthly email updates will supplement a range of in-person engagement opportunities at key milestones throughout the TSP.



Engagement Activities:

The consultant team will organize and facilitate in-person or hybrid events and activities designed to listen to the community about their needs and observations. During these events the team will also inform and educate about the constraints and opportunities. Some events will be designed to solicit feedback from a wider range of people and engage the community throughout the TSP process. Interactive activities are anticipated to include:

- Two in-person or hybrid workshops to talk with the community about the TSP Goals (task 2) and project list (Task 6)
- 5 pop-up events and neighborhood meetings.
- 5 online stakeholder meetings with small groups, such as PTAs, CIOs, or other community groups
- Specific attention will be paid to engaging the BIPOC community with 1.5-hour focus groups hosted by CELs and phone or email follow ups conducted towards the end of the project to ensure that their feedback has been reflected in the TSP.

Outreach materials:

Outreach materials to advertise listening and feedback events will include social media posts, flyers, and yard signs and both English and Spanish language versions will be available. This scope and budget assume that the consultant team will design the materials but does not include expenses associated with printing and distributing them. Outreach materials will include:

- Process and issue-based educational materials (up to 2 pages)
- 2 Project flyers (8.5x11") print and digital
- 1-2 Postcards (3.5x5"), print for citywide mailing or Tualatin Today.
- 1 Yard Sign, print- at parks and key public destinations
- 2 sets of social media graphics (Facebook and Instagram), digital
- Up to 5 graphically rich boards for community workshops
- Copy for bimonthly listserv emails and quarterly social media posts

Key Deliverables

- Project website creation with monthly updates
- Survey creation (2 surveys), distribution, and analysis of results
- Two Workshops at key milestones
- Focus groups with underrepresented communities
- Five mobile pop-up event tabling to share and solicit feedback
- Content for email updates, social media posts, and marketing materials
- Presentation materials and digital content creation for the above events and outreach

3.4 Engagement Summary Memo

Mid-way through the TSP project the consultant team will summarize the engagement efforts thus far and how well the engagement is meeting project goals for broad and diverse participation. This interim memo will focus on how successful the engagement has been and whether the Public Involvement Plan needs to



be altered to reach a broader set of people. At the end of the project a draft and final memo will be written, detailing the engagement for the entire TSP. A major focus will be on how feedback was solicited from underserved or hard to reach groups in Tualatin and how the engagement efforts met the City's desire for equitable public outreach.

Key Deliverables

- Draft mid-point engagement summary
- Draft and final Engagement Summary Memo

3.5 Council and Planning Commission Meetings

As part of the Project Plan, the key milestones to gather Planning Commission and City Council feedback and inform them on project deliverables will be identified. Fehr & Peers will produce presentation materials for these meetings and will summarize that feedback for dissemination with the rest of the project team. The feedback from these meetings will be incorporated into the applicable project deliverables and summarized for the Engagement Summary Memo (Task 3.4).

Key Deliverables

- Attendance at Planning Commission and City Council meetings
- Presentation materials for meetings
- Summary notes from the meetings

Task 4 – Technical Foundation

Fehr & Peers will coordinate the project team for the quantitative multimodal analyses and will lead the roadway, freight, and transit sections. Alta will lead the analysis of active transportation modes. These subtasks will be largely concurrent, striving for real-time communications of findings and issues, seeking to ensure that all aspects of the analysis are mutually informed for reporting to the City.

4.1 Data Collection

We will work with City staff to collect any GIS layers, recent traffic data, and multimodal infrastructure data that is already available from local or regional sources to support the technical work. The consultant project team will compile the following information:

- Collection of new PM-peak period all-modes turning movement counts at 25 intersections
- Collection of new bi-directional daily speed and volume counts at 5 locations
- Collision data from ODOT
- Bicycle facilities
- Pedestrian facilities
- Transit stop and route information from TriMet and SMART
- Roadway characteristics such as functional class, speed limits, and number of lanes



- Environmentally sensitive areas, water bodies, and parks
- Equity areas and population demographics
- Current transportation demand management programs for large employers in the city
- Key destinations including schools, government centers, and major employers
- Land Use Data:
 - Current uses
 - Current zoning
 - Current built area
 - Approved developments
- 2045 forecasted traffic volumes from Metro and/or Washington County

After cleaning and inventorying this data, we will identify gaps in data that is needed for the existing and future conditions analysis. We will plan one 3-hour in-person field visit for data collection and observation. We assume that 25 intersection turning movement counts and 5 bi-directional all-day speed and volume counts will be purchased from a count vendor, with the exact locations to be identified early in the project with City staff.

If data gaps are identified, Alta will work with a technology partner specializing in computer vision and AI with aerial imagery to derive a robust inventory of existing bicycle and pedestrian elements not present in Tualatin's existing GIS data. A potential line-item cost for data collection of sidewalks and crosswalks is included in our project budget. We anticipate working with Tualatin to adjust this potential cost during our existing conditions work to reflect the actual cost of data gathering for the entire city or specific prioritized areas, such as 'climate friendly areas' within the city, per CFEC requirements.

Additionally, data gathering will be required to capture curb ramps as well as bicycle facility width and condition. Alta will work with Tualatin to develop a data gathering strategy which prioritizes specific areas, such as 'climate friendly areas' within the city. We anticipate this data gathering would be done via a combination of fieldwork and desktop inventory. The proposal, as submitted, assumes approximately 40 staff hours for data collection that could either augment or replace data gathering by a technology partner, or the City. We anticipate refining this cost with Tualatin staff.

Key Deliverables

- An inventory of existing data resources for use in the technical analysis
- Purchase of 25 PM peak period all-mode turning movement counts
- Purchase of 5 bi-directional all day speed and volume counts
- An inventory of bicycle and pedestrian elements to meet CFEC requirements

4.2 Planning Context and Existing Conditions

The technical approach will focus on identifying existing transportation issues and needs for each mode. The consultant team will incorporate findings from the policies and practices audit (Task 2.2) and initial data collection (Task 4.1) into a technical memorandum that outlines challenges and opportunities for all travel modes in Tualatin.

This initial system scan will incorporate an analysis (led by Alta) of existing and planned Active Transportation routes, which will be performed to identify deficiencies and gaps in the bicycle and pedestrian networks. This will include:

- Pedestrian network:
 - Presence, type and width of facilities including sidewalks, crosswalks and curb ramps
 - system connectivity, including sidewalk gaps and crossing spacing gaps
 - access to destinations
 - Pedestrian-involved crashes and safety issues
- Bicycle network:
 - Presence, width and type of facilities
 - system connectivity
 - access to destinations
 - Bicycle-involved crashes and safety issues
 - Bicycle level of traffic stress

The results of these analyses will culminate in an active transportation map atlas consisting of Pedestrian Network Maps and Bicycle Network Maps. Information will be consolidated, when possible, to provide legible but information dense maps. Special emphasis will be placed on the identification of bicycle and pedestrian facility integration, Complete Streets, closing gaps in connectivity, bicycle comfort or “Level of Traffic Stress”, and potential opportunity sites that support a better integrated multi-modal network. This technical work will support the policy and program recommendations for active transportation in the City.

Fehr & Peers will lead the Transit, Roadway, and Freight Systems analysis to identify:

- Transit system:
 - Existing transit providers
 - Location of transit stops and routes
 - Transit service coverage and frequency
- Freight System:
 - Designated freight routes
 - Key freight destinations and employment centers
- Roadway system:
 - Current functional class and ownership
 - Roadway characteristics (ADT, number of lanes, and posted speed)
 - Location of traffic signals and intelligent transportation system (ITS) facilities
 - Location and condition of bridges and bridge ownership
- Intersection operation analysis:
 - Intersection geometry and traffic control at 25 study intersections
 - PM peak hour level of service, delay, and volume to capacity ratio at 25 study intersections
- Corridor analysis on SW Nyberg Street and SW Tualatin-Sherwood Road encompassing 10 intersections
- Collisions:
 - High collision locations
 - Fatal and severe injury crashes

- Crashes involving a pedestrian or bicyclist
- Air, Marine, and Pipeline facilities
- Transportation options element:
 - Employers and total number of employees in the city that are part of the Employee Commute options program
 - Known transportation demand management programs for large employers in the city

The traffic operations analysis will be evaluated at intersections using Synchro software and the latest Highway Capacity Manual (HCM) methodology. Intersection operations will be reported using level of service (LOS) letter grades, average control delay per vehicle, and intersection volume to capacity ratio. The results will be compared with any appropriate LOS standards published by the owner of the facility. The corridor analysis will be completed in SimTraffic to capture the effects of closely spaced intersections.

Complete existing conditions maps will be created for each mode using ArcGIS. Unless otherwise described, analyses rely on readily available data from local, county, regional, and state spatial databases, or other common publicly available datasets, and assumes no new data collection.

Key Deliverables

- Draft and final memorandum on Existing Conditions and Planning Context
- PM-peak hour intersection level of service analysis for 25 intersections
- Corridor analysis on SW Nyberg Street and SW Tualatin-Sherwood Road encompassing 10 intersections
- Modal maps

4.3 Future Network Analysis

To complete the future network analysis, Fehr & Peers and Alta will work together to summarize planned transportation improvements from city, county, and regional planning documents and anticipated population and employment growth from the regional travel demand model in order to identify the gaps and deficiencies in the future transportation network for all modes of travel.

Fehr & Peers will coordinate with Metro and Washington County to request travel demand model outputs from the Washington County Westside focus model in order to prepare horizon year (2045) traffic forecasts. Model revisions and validation by the consultant team are not assumed in this scope of work. The travel model outputs along with planned transportation improvements will provide the foundation for developing future year traffic forecasts at the 25 study intersections and study corridor.

Tualatin's TSP must analyze and report on the transportation performance measures adopted with the 2023 RTP. After publication of the draft RTP in summer 2023 the consultant team will review and determine how to calculate the City's performance towards these measures. We have accounted for additional technical budget for this task to perform this work.

From the identified modal network deficiencies we will develop solutions and projects to close the gaps and form a complete transportation network. We will work with City staff to identify a priority travel network

for pedestrians, bicyclists, transit, and vehicles. These networks will be mapped in ArcGIS and included in the future network conditions memorandum.

Key Deliverables

- Draft and final memorandum on Future Network Conditions
- PM-peak hour 2045 intersection level of service analysis for 25 intersections
- Corridor analysis on SW Nyberg Street and SW Tualatin-Sherwood Road encompassing 10 intersections
- Layered Network Modal maps

Task 5 – Modal Network Development & MMLoS Policies

The technical analysis will provide the framework to identify key facilities needed for each travel mode in Tualatin. This task will further refine these priority facilities and set multimodal level of service policies that the City can use to measure performance for all transportation modes.

5.1 Multimodal level of service policy development

While the region and ODOT are updating the Regional Mobility Policy and the CFEC performance measure requirements, the City of Tualatin can have independent discussions to measure transportation performance relative to its long-term local goals. We will work with City staff to craft multimodal LOS policies that support community goals. Key questions we like to ask include:

- What types of LOS metrics make the most sense for each mode?
- Are LOS metrics appropriate for the local land use context?
- Can the LOS concept be informative on congested corridors?
- Which of these metrics need to be modeled vs. others that are more intuitive?

The consultant team will hold two 1.5-hour workshops with city staff to discuss the types of LOS metrics that could be appropriate for each mode in Tualatin. Following this workshop, we will draft multimodal LOS policies and standards as required in the TPR to be reviewed by city staff. After reviewing city comments, we will finalize the multimodal LOS policies and standards to be incorporated into the final TSP document.

Key Deliverables

- Two 1.5-hour workshop with city staff
- Workshop agenda
- Workshop presentation
- Workshop notes
- Draft multimodal LOS policies
- Final multimodal LOS policies

Task 6 – Project Prioritization, Costing, and Funding Identification

This task brings together the findings from the existing and future analysis to develop a list of projects that will meet Tualatin’s identified needs for all travel modes. Starting from a broad list of potential capital and programmatic projects, we will work with the City to prioritize these projects and create a constrained project list that could conceivably be built within the twenty year planning horizon based on identified funding opportunities.

6.1 Draft Project List Creation

This task will develop an updated list of projects and programs to address the current and future needs and deficiencies for all five modal networks identified in the earlier tasks. We will review the following documents for potential projects to include on the draft list:

- 2013 Tualatin TSP
- Most recent Tualatin Capital Improvement Plan
- 2023 Metro RTP
- 2019 Washington County TSP
- 2013 Clackamas County TSP
- Statewide Transportation Improvement Program
- TriMet long-range service plan

The project list in the 2013 TSP will be reviewed and updated, including removal of projects that have been completed or deemed infeasible and incorporating revisions to projects where more information is now available. In addition to developing a sound 20-year roadmap of investments for Tualatin, this process will have an eye toward developing a subset of projects that can help position the City to seek funding. This is also an opportunity to craft a list of projects and programs that the City can use as a tool for advocating for support from other agencies.

Key Deliverables

- Draft project list
- Draft maps

6.2 Financially Constrained Project List

To help the City identify priority investments, Fehr & Peers will partner with staff and stakeholders to develop a criteria-based prioritization process for the identified capital projects that also draws from the public feedback that we will have received. Evaluation criteria could include metrics such as community support, safety, bike LTS, climate, and potential for outside funding/partnerships, among others. Equity will be an important metric to ensure that communities that have been historically underrepresented benefit from future projects. We will draft an initial set of prioritization criteria for city review and feedback. After receiving comments and discussion of the criteria, Fehr & Peers will finalize the prioritization criteria.

Fehr & Peers will then perform a GIS exercise to score the project list according to the criteria. The full list of projects with their draft scoring will be shared with city staff for review. We anticipate one round of adjustments to the scoring criteria and rescoring of projects.

Based on a review of the 2013 TSP project list and the requirements in the new CFEC guidelines, we do not anticipate performing an Enhanced Review of any roadway projects as is detailed in OAR 660-12-0830. If the project list does not have any projects requiring Enhanced Review the TSP would not need to perform a VMT analysis based on the constrained project list. These two analyses are not included in this scope and budget but could be reevaluated at such time as they may become necessary.

Fehr & Peers will work with the City to build a final project list that includes projects with a range of costs and implementation timelines so that there will be projects that fit a range of available funding sources. The list will fit within Tualatin's anticipated financial means over the 20 year planning horizon and build out a balanced multimodal network for the city. Accompanying maps will illustrate the location and type of project and can be used during outreach to stakeholders and the public.

Key Deliverables

- A draft set of prioritization metrics for scoring the draft projects
- A final set of prioritization metrics
- A scored list of projects
- Final project list that fits within the City's 20-year funding outlook
- Final maps showing the constrained projects

6.3 Project Cost Estimating

In tandem with the project scoring, planning level cost estimates will be developed for the project list using locally available cost data wherever possible. We assume that the City will provide recent local capital cost information where available, or if not available, we will use the best available data from other regional sources. These will be used to estimate what projects can be included on the financially constrained list to fit within the available funding for the next twenty years.

Key Deliverables

- Planning-level cost estimates for projects on the draft project list

6.4 Funding Assessment

To ensure that there are appropriate financial resources available to complete the identified policies, programs, and projects, ECONorthwest will analyze Tualatin's funding capacity. First, they will complete a capacity analysis to evaluate baseline funding available over the planning period based on historic transportation revenues and recent trends in project funding. Second, they will identify and evaluate a menu of potential funding and financing tools available to the city that they are currently not employing.



Based on some standard evaluation criteria (i.e., such as funding adequacy, administrative ease, etc.) they will present initial recommendations about what funding tools and funding strategies are appropriate to include in the Funding Assessment, considering the existing funding tools the City is already implementing and recommendations for new or innovative funding sources. After feedback from the project team and City staff they will make final recommendations regarding the package of funding tools that should be pursued as the project team further develops the TSP. The final work will describe which tools are the “best” choices for the Financial Plan and which tools appear less suitable.

Key Deliverables

- Draft and final funding assessment memo

Task 7 – Draft and Final Document

This task will create a public-facing document summarizing the data collection, public outreach, and results of our multi-disciplined analysis. Therefore, it is imperative we produce a memorable, high-quality set of deliverables of lasting usefulness, which will include:

- **Executive Summary:** Intended for public consumption, this shorter document will incorporate extensive graphic appeal and be written in concise and non-technical language to communicate the TSP’s overall vision clearly to all.
- **Document for Internal Staff:** This document will have the same results shown in the Executive Summary but will be expanded to provide the necessary project details, including the outreach process, goals and policies, analytical findings, modal plans, performance metrics, and implementation details. This will be a final plan ready for Council adoption.
- **Spanish Language Version:** To reach a wider public audience, a Spanish language version of the executive summary will be created.

Key Deliverables

- Visually enhanced Executive Summary
- Draft and final TSP report
- Spanish language version of the executive summary
- All supporting technical documentation and GIS files

City staff will lead the adoption process for the Tualatin TSP while we will be available to support as needed through participation in presentations, public hearings and preparation of materials. We are available to attend up to four meetings in support of plan adoption.



Budget

Attached is the expected cost and hours needed to fulfill the tasks described above. The budget includes the staff performing the work, their role, and the hourly rate for their time. This budget includes all expenses including travel, communication, and any other direct costs we expect to incur when providing these services.