

Sample Evaluation Matrix

Updated 10/25/2023

An evaluation framework was created to help prioritize projects developed through this transportation system plan update. The evaluation framework is an extension of the goals and objectives and provides a consistent method to aid in identifying the highest priority projects. The evaluation framework can be quantitative and/or qualitative in nature. For this effort, projects will be evaluated using a [quantitative or qualitative – choose one method].

[Quantitative approach] The framework consists of a point-based technical rating system, where scoring depends on how well proposed projects meet the measure of effectiveness criteria. By summing ratings (and weighting if desired), alternatives can be compared.

The evaluation criteria were selected based on the proposed transportation system plan goals and objectives. The criteria are focused on compliance with state, regional, and local plans and policies, engineering design requirements, and a desire to maximize positive (and minimize negative) economic, social (livability), and environmental impacts. Table 1 lists example evaluation criteria and a potential corresponding scoring methodology.

[Qualitative approach] The proposed evaluation criteria are based on the proposed goals and objectives. A qualitative process using the evaluation criteria will be used to evaluate alternatives and prioritize projects developed through the transportation system plan update. The rating method used to evaluate the alternatives is described below.

- Most Desirable: The concept addresses the criterion and/or makes substantial improvements in the criteria category. [+1, ●]
- No Effect: The criterion does not apply to the concept or the concept has no influence on the criteria. [0, ○]
- Least Desirable: The concept does not support the intent of and/or negatively impacts the criteria category. [-1, ○]

At this level of screening, the criteria will not be weighted; the ratings will be used to inform discussions about the benefits and tradeoffs of each alternative or project relative to each other. Table 1 presents example evaluation criteria and measures that could be used to qualitatively evaluate the alternatives developed through the transportation system plan update. It should be noted that these examples and the number of criteria per goal or measures per criterion shown should not be interpreted as a relative level of importance between goals or criteria. Furthermore, evaluation criteria are dependent on available data and assessment tools to address specific measures.

Table 1: Evaluation Matrix (SAMPLE EVALUATION CRITERIA AND MEASURES)

Criterion Number	Evaluation Criteria	Evaluation Measures
Goal 1 Coordination Goal: Develop and maintain a Transportation System Plan that is consistent with the goals and objectives of the City, [applicable] County, and the state.		
C1.1	Compliance with State policies, plans, standards, and requirements	To what extent does the project ensure compliance with State policies, plans, standards, and requirements?
C1.2	Consistency with the regional transportation plan	To what extent does the project ensure consistency with the regional transportation plan?
C1.3	Compliance with local land use plans, comprehensive plans, and regional transportation plans.	To what extent does the project comply with local or regional land use, comprehensive, and transportation plans? Measured by whether or not the project is identified or compatible with an adopted plan.
C1.4	Incorporate projects identified in other state, regional, or local plans	Is the projects included in an existing state, regional, or local plan? Is the project inconsistent or would it impede implementation of another project included in an existing state, regional, or local plan
Goal 2 Safety: Provide a transportation system that enhances the safety and security of all transportation modes.		
C2.1	Estimated number of fatal or serious injuries.	To what extent does the project reduce the estimated frequency of fatal and serious injury crashes? Whenever possible, measure using Oregon calibrated Highway Safety Manual (HSM) predictive models for estimating relative change in predicted crash frequency.
C2.2	Number of conflict points between all modes of travel including crossing points for pedestrians and bicyclists along major arterials.	To what extent does the project increase safety by reducing vehicle to vehicle, vehicle to pedestrian/bicycle, or pedestrian/bicycle to pedestrian/bicycle conflict points? Measured as relative impact between projects in regards to the number of conflict between modes and speed differential.
C2.3	Estimated number of bicycle and pedestrian related crashes.	To what extent does the project reduce the estimated frequency of pedestrian and bicycle related crashes? Whenever possible, measure using Oregon calibrated Highway Safety Manual (HSM) predictive models for estimating relative change in predicted crash frequency.
C2.4	Impact on emergency response time.	To what degree does the project reduce emergency response time? Measured by whether or not a project provides a more direct connection for emergency response vehicles or provides improvements that reduce overall travel time.
C2.5	Awareness and reliability of lifeline and evacuation routes.	To what extent does the project enhance or worsen awareness and/or reliability of lifeline and evacuation routes.
C2.6	Intersection visibility and sight distances available to motorists, pedestrians, and bicyclists at intersections and key decision points.	To what extent does the project improve sight distance for all system users, allowing each adequate time to identify and react to conflicts? Measured as relative impact between projects for providing adequate sight distance based on desired operating speeds.
C2.7	Schools	Does the project improve connectivity to schools and remove existing walking/biking barriers?
C2.8	Number of police calls in proximity of project	Does the project improve the personal security and/or safety identified in the police call logs?
Goal 3 Health: Provide a transportation system that enhances the health of residents and users.		
C3.1	Active living and physical activity.	Does the project promote or increase the use of active transportation modes?
C3.2	Exposure to air pollution	Does the project promote walking and/or biking on low traffic streets?

Criterion Number	Evaluation Criteria	Evaluation Measures
C3.3	Access to health supportive services	Does the project promote multi-modal access to parks, community centers, civic amenities, neighborhood commercial, health and social services, and/or other health supportive destinations?
C3.4		
Goal 4 Mobility: Optimize the performance of the transportation system for the efficient movement of people and goods.		
C4.1	Percent of facilities meeting applicable operational performance measure.	To what extent are operational performance measures met for the project? Measured by the percent of facilities where operational performance measures are met.
C4.2	Viability of non-auto travel.	To what degree are transportation facilities (transit service, sidewalks, bicycle lanes, separated mixed-use paths, parks) for non-auto travelers integrated into the project? Measured relative to facilities and integration present in baseline conditions.
C4.3	Impact on transit ridership.	To what degree does the project promote transit ridership or make transit a more viable option for all users? Measured by whether or not a project is able to increase transit ridership.
	Percentage of acceptable pavement conditions based on roadway classification or extended lifespan of pavement.	To what extent will the project preserve or extend the life of the existing pavement condition? Measured by whether or not the project improves the pavement condition index.
C4.4	Access spacing	To what extent is the project adhering to existing access spacing standards or promoting good access management practices.
C4.5	Improve operations/sight distances – see objective under Goal 2	Is the project improving existing sight distance issues?
C4.6	Strategies to create greater mobility, reduce auto trips, make more efficient use of the roadway system, and minimize air pollution.	Implements Transportation Demand Management (TDM) and Transportation System Management (TSM) or other strategies.
Goal 5 Accessibility and Connectivity: Develop an interconnected, multimodal transportation network that connects all members of the community to destinations within and beyond the [city/county].		
C5.1	Impact on system-wide connectivity and availability of more direct routes accommodating all modes of transportation.	To what extent does the project improve the connectivity of the existing transportation system or provide a more direct route accommodating all modes? Measured by the extent to which each project increases connectivity and provides facilities for all modes.
C5.2	Miles of designated facilities (on-street and off-street) for bicyclists and pedestrians provided.	To what extent does the project increase the number of miles of pedestrian and bicycle facilities? Measured by potential expansions of the pedestrian and bicycle systems.
C5.3	Potential impact on bicycle and pedestrian volumes.	To what degree does the project increase pedestrian and bicyclist travel? Measured by potential increase in pedestrian and bicyclist volume relative to baseline conditions.
C5.4	Improves accessibility for people with disabilities	To what degree does the project address existing ADA gaps?
Goal 6 Equity: Provide an equitable, balanced and connected multi-modal transportation system.		
C6.1	Impact of transportation project on low income and minority populations.	To what extent does the project affect low income and minority populations relative to other community groups? Measured as relative ability of each project to spread the impacts and benefits of transportation improvements equitably to all populations.

Criterion Number	Evaluation Criteria	Evaluation Measures
C6.2	Support of affordable communities	Does the project support the community's affordable housing goals? To what extent does the project impact combined housing and transportation costs?
C6.3	ADA Compliance.	To what extent does the project provide opportunities to upgrade pedestrian facilities to ADA standards? Measured by percent of pedestrian facilities meeting ADA standards.
C6.4	Incorporation of safe, convenient, and comfortable multimodal facilities.	To what degree does the project further multimodal transportation? Measured by degree to which projects provides for robust facilities and network connectivity.
Goal 7 Community and Economic Vitality: Provide a transportation system that supports existing industry and encourages economic development in the [city/county].		
C7.1	Roadway geometry accommodates freight movement where it is warranted.	To what extent does the project accommodate the design vehicle for designated freight routes? Measured by whether or not a project is able to accommodate the design vehicle without potential adverse impacts to other modes.
C7.2	Capacity at Railroad crossings.	To what extent does the project accommodate existing and forecasted freight capacity at railroad crossings? Measured by whether or not a project is able to accommodate existing and forecasted capacity.
C7.3	Traffic operations performance on designated freight routes.	To what extent does the project provide acceptable performance along designated freight routes? Measured by operational performance along freight routes.
C7.4	System-wide congestion and travel time.	To what extent does the project relieve congestion or reduce travel times on the transportation system? Measured by whether or not a project relieves congestion or reduces travel time.
C7.5	Potential increased attraction to desired businesses and developers.	To what extent does the project eliminate roadblocks to development caused by the transportation system? Measured by the critical transportation improvements funded relative to Baseline.
C7.6	Recreational routes/connecting recreational locations	To what extent does the project promote regional recreational bicycle and pedestrian tourism?
Goal 8 Sustainability: Provide a sustainable transportation system through responsible stewardship of environmental resources.		
C8.1	Impacts on air quality, environmentally sensitive areas, and water and soil quality.	To what degree does the project impact environmentally sensitive areas? Measured by the potential adverse impacts of the proposed project to the environment.
Goal 9 Strategic Investment: Provide a sustainable transportation system through responsible stewardship of financial resources.		
C9.1	Cost/benefit analysis and potential impact on forecasted expenditures.	To what degree does the project leverage a positive return on investment? Measured by the calculated cost/benefit analysis and alignment with current funding projections.
C9.2	External funding opportunities leveraged and financially responsible development proposals.	To what extent does the project leverage other private funding sources or include transportation improvements as part of a development proposal? Measured by whether or not a project leverages additional funding sources or is included as part of a development proposal.
Goal 10 Land Use and Transportation Integration: Create a balanced built environment where desired existing and planned land uses are supported by an efficient multi-modal transportation system.		
C10.1	<i>Criteria and measures specific to this Goal have not been identified yet. Project participants will discuss the possibility of referencing criteria listed under other goals where there is a clear relationship to transportation and land use integration.</i>	

