

PBOT

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Southwest In Motion (SWIM) Plan

To: Stakeholder Working Group
From: Nick Falbo, Senior Transportation Planner
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Subject: Prioritization Criteria for Discussion

Southwest In Motion is a short-term refinement, prioritization and implementation strategy for planned active transportation investments in Southwest Portland. The final plan will identify a realistic 5-year active transportation action plan that provides basic walking and bicycling connectivity as well as access to transit improvements, where they are needed most.

There is a tremendous need for active transportation investment in Southwest Portland. The Portland Bureau of Transportation has conducted many citywide, area, and corridor plans which recommend active transportation infrastructure for the Southwest area, and many projects remain unbuilt. Total cost for walking and bicycling projects in the Transportation System Plan major project list, a subset of all needs, total over \$250,000,000.00¹.

Prioritization Process

To make the most of limited resources, and to spend public funds in a transparent way, the Southwest In Motion plan will use a data-driven prioritization process to guide the top tier of investments. All planned projects are valuable and needed, and the Southwest In Motion plan needs to identify which projects to do first. The plan will use the ActiveTrans Priority Tool (ATP)² to record, calculate and apply prioritization criteria and measures to the Southwest In Motion project list. Figure X illustrates the expected prioritization process sequence for Southwest In Motion.



Figure 1: Prioritization Process

¹ Excluding mega projects such as the SW Corridor Light Rail and Lake Oswego to Portland Trail.

² NCHRP 803: ActiveTrans Priority Tool, available from http://www.pedbikeinfo.org/planning/tools_apr.cfm



Criteria and Measures

Before prioritization of a project list, PBOT in collaboration with the Stakeholder Working Group (SWG) must identify which prioritization criteria and measures will be used to sort and rank potential projects. As a starting point, staff prepared a draft of criteria and measures for discussion among the SWG. This proposal is based on the review of past PBOT prioritization processes, consideration for lessons learned from those efforts, preliminary public involvement from the SWG and PedPDX plan, and an understanding of future bureau funding priorities³. The reviewed sources and projects are identified and described below.

APT Standard Criteria

APT methodology identifies nine criteria that are commonly considered in prioritization processes⁴. Agencies may select among these criteria, as well as identify new locally identified factors most relevant to the project purpose.

- Stakeholder Input
- Constraints
- Opportunities
- Safety
- Existing Conditions
- Demand
- Connectivity
- Equity
- Compliance

PBOT Criteria from Past Planning

PBOT routinely conducts data driven prioritization processes as a key step for prioritizing project lists of all scales. The precise selection of criteria and measures differs in response to project goals, data availability, community priorities and institutional interests. To understand the potential criteria and measures commonly used, the project team reviewed prioritization criteria, measures, and variables used in the transportation planning projects listed below. Prioritization details for each plan are reproduced in the back of this memo.

- Safe Routes to school strategy (2017, in progress)
- Southwest Neighborhoods, Inc (SWNI) sidewalk prioritization (2011)
- Neighborhood Streets Program, LTIC Allocation Methodology (2017)
- Transportation System Plan (TSP) major programs list (2016)
- Growing Transit Communities (GTC) (2016)

³ PBOT is actively forming the PBOT Investment Strategy for programming future revenue streams. More information is available in the presentation here: <https://www.portlandoregon.gov/transportation/article/663066>

⁴ Criteria are referred to as “factors” in the APT methodology. Detailed descriptions of these factors, and examples of potential variables are available in chapter 1 of NCHRP Report 803.

PedPDX Walking Priorities Survey

As part of the public engagement for Ped PDX: Portland's Citywide Pedestrian Plan, staff administered a survey to ask Portland community members about priorities related to access, demand, safety, and equity⁵. This early engagement effort offers some insight into priorities of Southwest residents and stakeholders. These results may be used to influence or validate the selection of prioritization criteria and measures.

Analyzing results for Southwest Portland residents reveals unique priorities in Southwest, different from the rest of the city. To the question of "What kinds of places are most important to improve for walking in Portland?" the top three answers were:

1. Connections to Schools (Access)
2. Connections to Transit (Access)
3. Along and across busy Streets (Safety)

Project Stakeholder Working Group Exercise

The Southwest In Motion SWG participated in an informal exercise during the first Stakeholder Working Group meeting for the Southwest In Motion Project⁶. This exercise asked participants to answer the question "The best, first projects are ones that ..." as a way to understand the core outcomes valued by the working group members. The exercise was a starting point for discussion, and while not conclusive, points to important shared priorities among the working group members.

Staff grouped exercise responses into common categories, and identified the following themes for the best projects:

- Stakeholder Input/Community Support
- Safety
- Opportunities (for implementation)
- Demand (Expected level of use)
- Serve Key Destinations & Access to Transit
- Support Culture Change
- Geographic Balance
- Connectivity (Network Completion and Expansion)
- Return on Investment

⁵ As reported in PBOT PedPDX Draft Walking Priorities Survey Report. November 2017.

⁶ Prioritization Activity Results from SWG Meeting #1. 9/28/2017

Criteria Comparison

Table 1 identifies the overlapping prioritization criteria applied across these planning projects and engagement efforts. In some cases, plans used different terminology for shared criteria. Staff considered the intent and specific measures used to identify a common criteria name when creating this table.

Table 1: Common Prioritization Criteria Across Projects

	<i>Neighborhood Streets Program</i>	<i>Safe Routes to School</i>	<i>Transportation System Plan</i>	<i>Growing Transit Communities</i>	<i>SWNI Sidewalk Infill</i>	<i>PedPDX Survey</i>	<i>SWIM SWG Exercise</i>
Network Access	X	X	X	X	X	X	X
Equity	X	X	X	X		X	
Safety		X	X	X		X	X
Stakeholder Input			X	X	X		X
Demand				X	X	X	X
Connectivity				X			X
Cost Effectiveness			X				X
Opportunities					X		x

PBOT Lessons Learned

Discussion with project staff working on PBOT's past prioritization efforts revealed lessons and recommendations to consider in crafting future prioritization criteria and measures.

- Less can be more. Limit criteria and measures to those big-issues that matter. Including too many criteria and measures can wash out the distribution of scores, and fail to identify priority areas.
- Be aware of the use of similar or overlapping measures across multiple factors. If done unintentionally, this results in double counting. When done intentionally, it can accurately represent needs that address multiple values and goals.
- Measures should be readily available or easy to calculate. Measures requiring complex analysis may take significant resources to calculate, and have little overall effect on the outcomes of the selection compared to a simpler calculation or proxy measure.

Discussion Draft Criteria

The discussion draft criteria for Southwest In Motion prioritization are shown in **Table 2**. This table identifies recommended criteria, describes the objective of each criteria, provides an example of the types of measures used to value the criteria, and summarizes the expected prioritization results of each measure.

Table 2: Southwest In Motion Discussion Draft Criteria

	Criteria	Objective	Types of Measures	Expected Result
Primary Prioritization	Network Access	The project should support high-priority southwest designated active transportation networks (transit, walking, bicycling, school access).	Walkways: Number of city active transportation networks (SRTS, TSP Transit Access, City Walkway, SW Trails, etc) Bikeways: Bicycle Plan for 2030 Classifications; Bike Plan Investment Scenarios;	This will prioritize interconnected, designated networks
	Connectivity	The project should overcome barriers or fill gaps in the walking and biking network	Connectivity score (based on analysis or assignment) of the degree a project fills a major network gap or crosses a barrier.	This will prioritize arterial/collector streets crossing I-5 and waterways.
	Safety	The project should improve safety on our most dangerous streets.	On a Vision Zero HCN; High Speed, High Volume roads	This will prioritize arterial streets
	Demand	The project should serve areas with high concentrations of homes or destinations.	Serves Town/Neighborhood Centers, Multifamily Residential Zones, High Frequency Transit Stops, and Essential destinations.	This will prioritize town and neighborhood centers
Prioritization Refinement	Equity	The project should support under-served populations.	Using LTIC vulnerability measure: Score of Low income, Communities of color, Renter population.	This will prioritize high need geographic areas.
	Community Support	The project should respond to community demand and priorities.	Supported by Neighborhood organizations, District Coalition	This may shift priorities in ways not measured in the qualitative analysis.
	Funding Opportunity	The project should be compatible with funding sources, opportunities and programs.	Eligibility for funding sources (TSDC Eligible, LTIC collector street, SRTS alignment, VZ corridor	This will identify projects with more funding eligibility.
	Construction Feasibility	The project should be constructible, with no known fatal flaws or major constraints.	BES opportunity area, Presence of curb, degree of geographic constraint	This will prioritize opportunistic projects, and de-prioritize highly challenging projects.

Next Steps and Public Engagement

The public can help shape the prioritization process by helping to identify which criteria are most relevant given the project purpose and community values, and by helping to establish weights used to apply the criteria to the project list.

Staff will review, discuss and revise the draft criteria with the SWG, with the intent advancing an agreed upon criteria list for further public engagement. As part of public engagement related to priorities, staff will conduct online surveys, discuss with city committees, and host targeted focus groups.

The goal of the public engagement will be to ask for priorities among the draft criteria, and to identify any additional criteria or measures for consideration. Staff will hold further discussion with the project SWG related to specific measures and variables assigned to each criterion. Using the results of the public engagement, staff will identify potential weighting scenarios to discuss further with the Stakeholder Working Group.

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Past Project Prioritization Criteria and Measures

The following tables summarize the evaluation criteria and measures used in other PBOT planning efforts. While no set of criteria is identical, they identify common shared criteria across projects. These tables also indicate the types of measures used to value each of the criteria.

Table 3: Safe Routes to School Strategy Prioritization Criteria and Measures

Factor	Criteria	Measure	Detailed Variable
Access	School Access	Serves Multiple School walking networks	Project is on a designated SRTS route. Additional points for each overlapping route.
Equity	Low income child population	Title 1 school	Project is within enrollment boundaries of a title 1 school
Safety	Active Transportation Safety	On a Vision Zero HCN; Speed, Volume	On a high crash network street. Based on speed and volume where available. Proxies were used in some cases.

Table 4: SWNI Sidewalk Infill Prioritization Criteria and Measures

Factor	Criteria	Measure
Need	Street Classifications	City Walkway or within Pedestrian District
Access	Access to Transit	Frequent service bus route or Streetcar, Access to Light Rail Station, Regular bus route, Arterial that provides access to frequent service bus route
Demand	Trip Attractors	Schools, high density housing, commercial areas, concentrations of the elderly, low income and other disadvantaged populations
Support	Community Support	Supported by Neighborhood, District Coalition or in recent area plan
Planning	Identified in existing plans	Supported by existing policy and Identified as an existing Project in the Transportation System Plan (2002) and Pedestrian Master Plan (1998)
Feasibility	Constructability	Project is reasonably constructible, preferably within existing public right-of-way. Stormwater infrastructure is present.

Table 5: Neighborhood Streets Program (LTIC Allocation) Prioritization Criteria and Measures

Factor	Criteria	Measures (Proposed 2017 Allocation)	Detailed Variable
Access	Neighborhood Access	Point based score of designated city active transportation networks (SRTS, TSP Transit Access, Bike Network, Pedestrian Network)	<p>Scoring for Neighborhood Access (0-5 scale):</p> <p>Pedestrian access: 1 point if a street is designated in the TSP as a Central City Transit/Pedestrian street, city walkway, off-street path, or pedestrian district, or if the street is a SW Trail.</p> <p>Bike access: 1 point if street is designated in the TSP as a city bikeway or major city bikeway.</p> <p>Safe Routes to Schools: 1 point if street is within 1/4 mile walking distance of participating schools or has already been designated as a SRTS pathway.</p> <p>Transit access: 2 points if a street is within 1/4 mile walking distance of frequent service transit stop. 1 point if street is within 1/4 mile walking distance of non-frequent service transit stop.</p>
Equity	Vulnerability Factors	Composite score of Income, Nonwhite population, Renter population	<p>Scoring for Displacement Vulnerability Indicator (0-3 scale):</p> <p>% renters: 1 point if proportion of renters is greater than 46.5%</p> <p>% low income householders: 1 point if proportion of households with income below 80% of MFI is greater than 51.6%</p> <p>% communities of color: 1 point if proportion of communities of color is greater than 28.3%</p>
Project Readiness	Project readiness in the form of formally adopted plans rec	Within a target area covered by a formally adopted local street plan.	Within boundaries of the Tryon-Stephens, Division-Midway, or Cully local street plans.

Table 6: Transportation System Plan (2016) Prioritization Criteria and Measures

Factor	Measure	Variables
Safety	Relative to other projects, how much will this project reduce fatalities and serious injuries?	High crash corridors, busy streets, crossings maps.
Neighborhood Access	Relative to other projects, how many people will benefit from improved walk/bike/transit access to essential neighborhood destinations due to this project?	2035 Household density
Economic Benefit	Jobs, Freight, Economic Development	2035 Household and Job density; Transportation Network; Vacant/Underutilized industrial lands map; Freight Classifications; Centers and Corridors.
Health	Relative to other projects, how much will this project increase the attractiveness of walking/bicycling by addressing gaps and deficiencies in the pedestrian and bicycle networks and/or improving access to transit?	Existing gaps and deficiencies.
Equity	Relative to other projects, how much will this project improve safety, access (opportunity and neighborhood), and/or health for underserved populations (low-income, people of color, seniors and youth)?	Equity populations map.
Climate	Relative to other projects, how much will this project reduce greenhouse gas emissions by: Reducing vehicle miles traveled (VMT), and/or Improving vehicle flow?	Frequent service transit and major city bikeway network maps
Cost Effectiveness	What is the ratio of benefit scores to cost scores?	Benefit score and cost estimates.
Community Support	What is the extent of support or opposition to the project?	Comments received via map app and other means.

Table 7: Growing Transit Communities Prioritization Criteria and Measures

Factor	Criteria	Measure	Variables
Safety	Transportation Safety	Crash History	# of Ped and Bike fatalities (double weight) , Serious Injuries (double weight), All Injuries
		High Crash Network	On a High Crash Corridor
		High Crash Intersection	Near High Crash intersection
		Crash Risk Factors	Crash Factor Average Score from Vision Zero Analysis
Access [to Transit]	Improve Access to Transit	Proximity to Transit Stop	# of bus and MAX stops
		Average Daily Ridership	# of ons and offs
		Bus Ramp Deployment	# of ramp deployments
Demand	Proximity To Essential Destinations	Number of nearby essential Destinations.	# of destinations. Community Centers, Grocery Stores, Clinics, and Hospitals, Parks, and Schools
Equity	Serves Transportation Disadvantaged	Equity Matrix + Communities of Concern Measures	Average Score for Intersecting Census Tracts
Stakeholder Input	Identified Plan or Priority	Number of plans (TSP, Bike Plan, Ped Plan, etc)	Number of plans
Connectivity	Network Connectivity/ Convenience	Pedestrian Connectivity (PNA); Bike Network Connectivity	Pedestrian Network Analysis Score: Increase in access from all addresses to all addresses through reduced impedance.
		Scoring bikeway projects: Increase connectivity for cycling	Methodology: 3 points if it fills a major network gap, particularly if it crosses a major barrier (like a freeway) or completes a couplet (SE Washington is the main example) 2 points if it fills a network gap but there are other available routes (no major barriers) 1 point if it is addressing a deficiency in existing facilities
Transit Operations	Improves Transit Operations	Reduces bus delay	# of recognized delays
Public Support	Public Comment	Number of public comments about need or support	# of public comments about need or support
Demand	Serves the most people	Forecasted Housing Density in 2035	# of Units
		Forecasted Job Density in 2035	# of Jobs
Other (Not Included)	Personal Security	crime report; other reports of unsafe locations	

Table 8: PedPDX Walking Survey Priorities

Factor	Criteria
Access	Connections to schools
Access	Connections to transit
Access	Connections to commercial districts
Access	Connections to parks
Access	Connections to community facilities
Demand	Areas where many people live and/or work
Equity	Areas that serve people who rely on walking
Safety	Streets with high pedestrian crashes
Safety	Along and across busy streets
Safety	Residential Streets lacking pedestrian paths

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