

APPENDIX K

EVALUATION CRITERIA AND RESULTS

This document provides a list and description of the evaluation criteria and methodology to score all corridor alignments. The results table identifies the scoring values for each criteria for each alignment.

Evaluation Criteria

Account	Criteria	Description	Methodology Detail
Enhance	Future Daily Boardings	Average future (2040) weekday daily transit boardings for proposed corridor	Based on Sound Transit model
	Future Additional Daily Boardings	Change in future (2040) weekday daily transit boardings for proposed corridor, compared to 2040 'No-Build' bus route	Based on Sound Transit model
	Future Daily Boardings in Equity Locations	Share of average future (2040) weekday daily transit boardings in equity areas (median or higher equity index score)	Percent of future boardings at stations within block groups that have an equity score in the top four deciles in terms of equity populations
Connect	Population and Employment Density	Current (2019) households within ½ mile of each corridor, per corridor mile	-
		Current (2019) jobs within ½ mile of each corridor, per corridor mile	-
	Density of Equity Populations and Low-Income Jobs	Density of current (2019) equity populations, weighted by equity index score, per corridor mile	-
		Density of current (2019) low-income jobs, weighted by equity index score, per corridor mile	-
	Connectivity with Regional Transit Services	Future (2040) transit connections available on regional transit lines (e.g., Sounder). No direct connections to Link at Tacoma Dome Station.	-
Grow & Prosper	Population and Employment Growth	Future (2040) households within ½ mile of each corridor, per corridor mile	-
		Percent change in households within ½ mile of each corridor, 2019 to 2040	-

Account	Criteria	Description	Methodology Detail
		Future (2040) jobs within ½ mile of each corridor, per corridor mile	-
		Percent change in jobs within ½ mile of each corridor, 2019 to 2040	-
	Centers of Regional and Local Importance Served	Number of identified Regional Growth Centers and Centers of Local Importance within ½ mile of conceptual station locations. Regional Centers weighted higher than Countywide Centers and Centers of Local Importance.	Designated areas within ½ mile of routes, with the following weighting: <ul style="list-style-type: none"> ▪ Regional Manufacturing and Industrial Centers – 10 ▪ Regional Growth Centers – 10 ▪ Countywide Centers – 5 ▪ Candidate Regional Manufacturing and Industrial Centers – 5 ▪ Centers of Local Importance – 1
Sustain	Reduce Greenhouse Gas Emissions	Total kg of daily greenhouse gas emissions reduced based on future transit trips, average trip length, and average speed at screen line location (where transit passenger load is highest)	Based on applying Sound Transit model trip change to the average speed, SOV and trip length data from the PSRC model.
	Quality of Walking/Bicycling Network	Intersection density of local street network within ½ mile of each corridor	-
	Increase transit mode share in corridor	Potential increase in transit mode share at screen line location (where transit passenger load is highest)	Net change in transit mode share at the location with the maximum load
Deliver	Cost Effectiveness	Total capital cost (2022 \$) per annual rider	-
		Total annualized capital cost plus net annual operating cost (2022 \$) per annual rider	-
	Passenger Travel Times	Reduction in travel time from transit signal priority, all-door boarding, and stop consolidation, as a share of existing travel time.	-

Account	Criteria	Description	Methodology Detail
		Reduction in travel time from transit signal priority, all-door boarding, stop consolidation, and other running way treatments, as a share of existing travel time	-
	Funding Potential	Estimates score for four quantitative FTA Small Starts Project Justification Criteria (mobility improvements, environmental benefit, congestion relief, cost-effectiveness)	-

SSES CORRIDOR EVALUATION RESULTS

Account	Criteria	Description	Lakewood - Tacoma (Bridgeport/19th)			Lakewood - Tacoma (S. Tacoma Way and/or 38th/48th)			South Hill - Puyallup and/or Edgewood (Meridian)		Lakewood - Puyallup (112th)		
			A	A1	A2	B	B1	B2	C	C1	D	D1	D2
Enhance	Future Daily Boardings	Average future (2040) weekday daily transit boardings for proposed corridor	3,200	3,300	1,700	4,700	5,100	5,800	1,000	1,300	2,700	2,600	2,400
	Future Additional Daily Boardings	Change in future (2040) weekday daily transit boardings for proposed corridor, compared to 2040 "No-Build" bus route	1,100	1,200	400	2,600	3,000	3,700	300	700	1,200	1,100	900
	Future Daily Boardings in Equity Locations	Share of average future (2040) weekday daily transit boardings in equity areas (median or higher equity index score)	97%	97%	100%	97%	97%	97%	70%	64%	80%	77%	73%
Connect	Population and Employment Density	Current (2019) households within 1/2 mile of each corridor, per corridor mile	2,100	2,000	1,700	1,800	1,900	2,100	1,200	900	1,000	1,000	1,100
		Current (2019) jobs within 1/2 mile of each corridor, per corridor mile	4,200	3,900	2,100	4,800	4,500	4,300	1,700	1,300	1,600	1,500	1,500
	Density of Equity Populations and Low-Income Jobs	Density of current (2019) equity-weighted populations, per corridor mile	1,300	1,300	1,200	1,300	1,300	1,500	800	600	900	1,000	1,000
		Density of current (2019) weighted jobs and low-income jobs, per corridor mile	5,900	5,400	2,600	6,600	6,100	5,900	2,800	2,200	2,000	2,000	1,900
Connectivity with Regional Transit Services	Future (2040) transit connections available on regional transit lines (e.g., Sounder). No direct connections to Link at Tacoma Dome Station.	0	24	0	24	24	24	32	32	0	0	24	
Grow & Prosper	Population and Employment Growth	Future (2040) households within 1/2 mile of each corridor, per corridor mile	4,300	4,000	2,700	4,100	4,200	4,500	1,900	1,500	1,500	1,400	1,600
		Percentage change in households within 1/2 mile of each corridor, 2019 to 2040	107%	102%	60%	129%	122%	116%	57%	56%	42%	39%	44%
		Future (2040) jobs within 1/2 mile of each corridor, per corridor mile	6,800	6,300	3,300	8,200	7,500	7,400	2,600	2,000	2,300	2,300	2,100
		Percentage change in jobs within 1/2 mile of each corridor, 2019 to 2040	63%	62%	57%	70%	69%	70%	51%	50%	43%	48%	41%
Centers of Regional and Local Importance Served	Number of identified Regional Growth Centers and Centers of Local Importance within 1/2 mile of conceptual station locations. Regional Centers weighted higher than Countywide Centers and Centers of Local Importance.	62	64	36	67	67	67	22	23	21	21	22	
Sustain	Reduce Greenhouse Gas Emissions	Total kg of daily greenhouse gas emissions reduced based on future transit trips, average trip length, and average speed at a screenline location (where transit passenger load is highest)	1,000	1,000	700	1,200	1,400	1,800	400	800	200	200	100
	Quality of Walking/Bicycling Network	Intersection density of local street network within 1/2 mile of each corridor	120	117	109	114	119	123	78	69	71	71	72
	Increase transit mode share in corridor	Potential increase in transit mode share at a screenline location (where transit passenger load is highest)	12%	13%	8%	18%	20%	23%	5%	11%	2%	1%	1%
Deliver	Cost Effectiveness	Total capital cost (2022 \$) per annual rider	\$65.80	\$71.80	\$75.10	\$39.30	\$39.30	\$33.20	\$157.80	\$164.80	\$72.90	\$62.10	\$82.30
		Total annualized capital cost plus net annual operating cost (2022 \$) per annual rider	\$9.60	\$11.90	\$12.40	\$6.30	\$6.70	\$5.20	\$34.50	\$34.20	\$14.00	\$11.00	\$16.00
	Passenger Travel Times	Reduction in travel time from transit signal priority, all-door boarding, and stop consolidation, as a share of existing travel time	-9%	-8%	-7%	-9%	-8%	-8%	-9%	-8%	-8%	-10%	-8%
		Reduction in travel time from transit signal priority, all-door boarding, stop consolidation, and other running way treatments, as a share of existing travel time	-12%	-11%	-9%	-11%	-10%	-10%	-12%	-11%	-10%	-13%	-9%
	Funding Potential	Estimated score for four quantitative FTA Small Starts Project Justification Criteria (mobility improvements, environmental benefit, congestion relief, cost-effectiveness and a high-level estimate for the land use and economic development Project Justification criteria). <i>Completed for the top-scoring variation in each corridor.</i>	3.0					3.3	1.7		1.7		

Scoring

5	Highest
4	Categories are based on natural breaks for each criterion
3	
2	
1	Lowest

Corridor	Extent
A	Lakewood TC - Downtown Tacoma
A1	Lakewood Sounder Station - Lakewood TC - Downtown Tacoma
A2	Lakewood TC - Tacoma Community College (TCC)
B	Lakewood TC - Downtown Tacoma via S. Tacoma Way
B1	Lakewood TC - Downtown Tacoma via 38th/Pine
B2	Lakewood TC - Downtown Tacoma via 48th/Pine
C	South Hill (Airport/Walmart) - Puyallup Sounder Station
C1	South Hill (Airport/Walmart) - Puyallup Sounder Station - Edgewood/Milton
D	Lakewood TC - Pierce College
D1	Lakewood TC - South Hill Mall TC
D2	Lakewood TC - Lakewood Sounder Station - Pierce College