

CROSSING BUSY STREETS

No bicycle boulevard is complete without closing the gaps! Large arterial streets, freeways and light rail tracks all create significant barriers for bicyclists, pedestrians and neighborhoods. In order to have a working network of bicycle boulevards, it's imperative that cyclists are able to cross major intersections safely. The tools in this section will show how that can be done on a generous, or shoe-string budget!

TOOLS	STREET TYPE PERMITTED ON	PHOTO	SPEED REDUCTION	LESS TRAFFIC	EMERGENCY DELAY	COST	DESCRIPTION	EXAMPLES IN PORTLAND, OR
CURB EXTENSIONS	All Streets		Likely	No	No	\$10,000-\$19,000	Increases bicycle/pedestrian visibility, shorten crossing distance	SE Hawthorne NE Alberta
SPEED BUMPS	Local Service		Yes, 85% to 25 mph	Maybe	Yes, 1.0-9.4 sec each	\$2000	Reduces auto speed to 20-25mph at bump, used preceding and following crosswalks	N/NE Dekum - Vancouver to MLK NE Ainsworth - 42nd to Lombard NW Mill Pond Rd - McDaniel to Engelman SE 111th Avenue - Division to Powell
RAISED CROSSWALKS	Local Service, Neighborhood Collector		Yes	Maybe	Yes 0.0-9.2 sec each	\$2000+	Increases visibility of crossing and pedestrians	Washington Park, near the playground east of the rose gardens. N Albina, north of Killingsworth
MEDIANS	All Streets		No	No	Maybe	\$40/sq. ft. or \$15,000-\$20,000 per location	Limits auto access, provides mid-point crossing refuge for bicycles/pedestrians	NE MLK at Mason NE Ainsworth at 15th
REFUGE ISLANDS	All Streets		No	No	No	\$8,000-\$15,000	Limits auto access, provides mid-point crossing refuge for bicycles/pedestrians	SE Ankeny and Sandy Blvd SE Ankeny and 39th Ave NE Couch and 39th Ave NE Klickitat and 33rd Ave N Willamette Blvd and Rosa Parks Wy
MARKED CROSSWALKS	All Streets		1-3 mph	No	No	\$1,000- \$1,500	Increases visibility at crossings	N/NE Ainsworth between MLK and Interstate SE Hawthorne SE Belmont

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STOP SIGNS	Local Service, Neighborhood Collector		Unlikely	Maybe	Yes	\$200 each	Stops car traffic, oriented to favor cyclist traveling on bicycle boulevard	Multiple Locations
HAWK SIGNALS	Busy Streets		No	No	No	\$150,000+	Stops all auto traffic at major crossings, pedestrian/bicycle activated	E. Burnside at NE 41st
SCRAMBLE SIGNALS	Busy Streets		No	No	No	\$100,000+	Stops all auto traffic, allows bicycle/pedestrian to move any direction thru intersection. Activated with bike loop pavement marking	West end of Broadway Bridge, Esplanade at top of Steel Bridge ramp
PEDESTRIAN HALF SIGNALS	Busy Streets		No	No	No	\$100,000+	Usually yellow, stops traffic when called. NOT allowed for new bicycle boulevards	SE Taylor at 39th
BIKE BOXES	Busy Streets		No	No	No	\$200 for striping	Brings cyclists to front of the line at traffic lights, priority crossing/turning, reduces right-hook conflict, fill in box with color paint to increase visibility	SE Clinton at 39th