

CITY OF ORRVILLE

APPENDIX D—BIKE TRAIL TYPES AND GUIDELINES

Widen Shoulder	
Purpose	<ul style="list-style-type: none"> ▪ Provide widened shoulder for additional walking space at side of roadway.
Where to Use	<ul style="list-style-type: none"> ▪ Areas where site conditions (topography, vegetation, or significant structures) do not allow a separated pathway to be installed.
Guidelines	<ul style="list-style-type: none"> ▪ Minimum width is 1.2m (4 feet) although a wider area may be required depending on issues like traffic speed, roadway curves, and amount of use. ▪ Widened area must meet structural cross section of adjacent roadway. ▪ Finished asphalt surface should be as smooth as possible to accommodate bikes, wheelchairs, strollers, and other similar vehicles. ▪ Clear signage and markings are required for widened shoulders to restrict parking from pathway area. ▪ Raised 4" buttons, guardrails, or a standard curb and sidewalk may be required in areas where safety issues such as speed, sight distance or roadway alignment dictate additional safety measures.
Widen Shoulder with Culvert	
Purpose	<ul style="list-style-type: none"> ▪ Provide widened shoulder for additional walking space at side of roadway and accommodate drainage in culvert underneath.
Where to Use	<ul style="list-style-type: none"> ▪ Areas where a widened shoulder would replace an existing open drainage ditch or swale.
Guidelines	<ul style="list-style-type: none"> ▪ Length of culvert should be limited to 30m (100 feet). ▪ Minimum width is 1.2m (4 feet) although a wider area may be required depending on issues like traffic speed, roadway curves, and amount of use. ▪ Widened area must meet structural cross section of adjacent roadway. ▪ Finished asphalt surface should be as smooth as possible to accommodate bikes, wheelchairs, strollers, and other similar vehicles. ▪ Clear signage and markings are required for widened shoulders to restrict parking from pathway area. ▪ Raised 4" buttons, guardrails, or a standard curb and sidewalk may be required in areas where safety issues such as speed, sight distance or roadway alignment dictate additional safety measures.
Comparative Cost	<ul style="list-style-type: none"> ▪ \$135 per linear meter (\$41 per linear foot).

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Widen Shoulder with Ditch or Swale	
Purpose	<ul style="list-style-type: none"> ▪ Provide widened shoulder for additional walking space at side of roadway, with existing ditch/swale moved to new edge of roadway.
Where to Use	<ul style="list-style-type: none"> ▪ Areas where site conditions (topography, vegetation, or significant structures) do not allow a separated pathway to be installed and where adequate space exists to provide a ditch or swale at the new edge of roadway.
Guidelines	<ul style="list-style-type: none"> ▪ Consider moving path to backside of swale as preferred option. ▪ Ditch/swale will require culvert at driveway crossings. ▪ Minimum width is 1.2m (4 feet) although a wider area may be required depending on issues like traffic speed, roadway curves, and amount of use. ▪ Widened area must meet structural cross section of adjacent roadway. ▪ Finished asphalt surface should be as smooth as possible to accommodate bikes, wheelchairs, strollers, and other similar vehicles. ▪ Clear signage and markings are required for widened shoulders to restrict parking from pathway area. ▪ Raised 4" buttons, guardrails, or a standard curb and sidewalk may be required in areas where safety issues such as speed, sight distance or roadway alignment dictate additional safety measures.
Paved Shoulders	
Where to Use	<ul style="list-style-type: none"> ▪ Good application for roads without curb and gutter.
Guidelines	<ul style="list-style-type: none"> ▪ Need equivalent surface to standard travel lanes. ▪ Should not be used as right turn lanes for vehicles. ▪ There should be no rumble strips on the shoulders. ▪ Size should be at least 4 feet wide.
Wide Curb Land	
Where to Use	<ul style="list-style-type: none"> ▪ Good for rural highways when there is not enough space available for bike lanes. This type of path accommodates bicycles but does not encourage use.
Guidelines	<ul style="list-style-type: none"> ▪ Located in right hand lane of shared roadway typically 14 feet wide.
Bike Lanes	
Where to Use	<ul style="list-style-type: none"> ▪ In areas where bike use is encouraged.
Guidelines	<ul style="list-style-type: none"> ▪ Lanes should be the minimum of 4 feet wide. ▪ Lane must be striped, signed, and marked.
Bike Path	
Where to Use	<ul style="list-style-type: none"> ▪ Use when right-of-way is available for continuous routes.
Guidelines	<ul style="list-style-type: none"> ▪ Path must be physically separated from road. ▪ Path is typically paved. ▪ Minimum width is 10 feet wide. ▪ 8-foot width is acceptable only if low bike traffic is expected; it will only receive occasional pedestrian use, and good horizontal and vertical alignments are in place.
<p>Sources: City of Portland, Office of Transportation. "Principles for Pedestrian Design." PAS #459, Bicycle Facility Planning.</p>	