

Appendix B

Routine Trail Tasks

Routine Trail Tasks are conducted on a frequent basis in order to upkeep a trail in good working condition. These tasks are an important element of trail maintenance to ensure safety and structural soundness of the trail system. Please see Trail Maintenance Standards for trail surface repair/replacement related maintenance.

RTT – 1

TRAIL INSPECTION (per 1,000 linear feet)

Inspection by Walking	
Maintenance Task	Inspection of trail by walking.
Frequency	Monthly
Standard	.2 hrs. per 1000 l. ft.
Staff Hours	Supervisor <u>.2 hr.</u> Total .2 hrs.
Materials	Clipboard, pen, and measuring tape.
Method	Walking the trail inspecting trail surface, shoulder areas, trees, culverts, bridges, fair weather crossings signage and amenities.
Capital Equipment	
Inspection by Driving	
Maintenance Task	Inspection of trail by driving.
Frequency	Monthly
Standard	.1 hrs. per 1000 l. ft.
Staff Hours	Supervisor <u>.1 hr.</u> Total .1 hrs.
Materials	
Method	Driving the trail inspecting trail surface, shoulder areas, trees, culverts, bridges, fair weather crossings, signage and amenities.
Capital Equipment	Pickup truck or off road utility vehicle.



RTT – 2
MOWING (per 1,000 linear feet)

Mowing Hard Surface Trails (Asphalt, Concrete, Gravel/Stonedust)	
Maintenance Task	Control of grass encroachment along trail.
Frequency	3 Times annually (Spring, Summer & Fall).
Standard	.5 hrs. per 1000 l. ft.
Staff Hours	Equipment Operator .25 hr. <u>Laborer .25 hr.</u> Total .50 hrs.
Materials	
Method	Mow along trail 3 ft. to 5 ft. Blow off trail off grass clippings.
Capital Equipment	2 Tractor Bush-hog implement Fairway blower implement
Mowing Natural Trails (Dirt)	
Maintenance Task	Mowing
Frequency	Every 30 days (or As needed)
Standard	.25hrs. per 1000 l. ft.
Staff Hours	<u>Equipment Operator .25hr.</u> Total .25 hrs. (Note: If using Bush-hog, then double staff hours)
Materials	
Method	Tractor mounted 8' Flail mower unit (OR tractor Bush-hog implement 5' – 6' wide)
Capital Equipment	Tractor

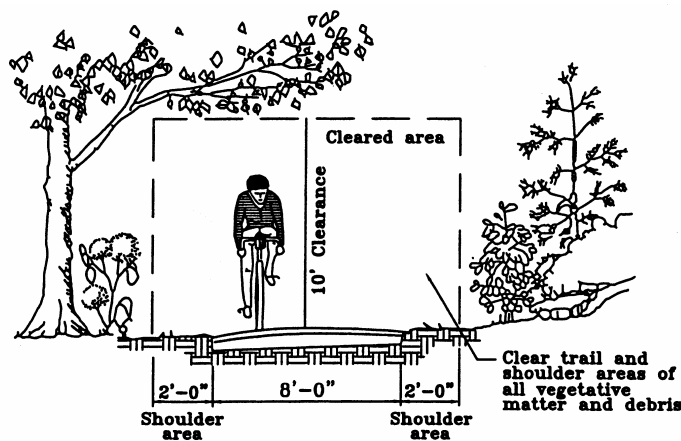


RTT – 3

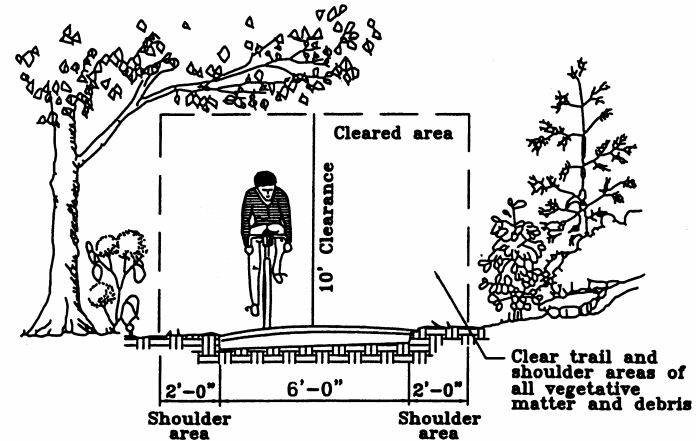
TREE and BRUSH PRUNING (per 1,000 linear feet)

Tree and Brush Pruning	
Maintenance Task	Control of tree and brush encroachment along trail.
Frequency	Twice annually.
Standard	.5 hrs. per 1000 l. ft.
Staff Hours	Laborer .5 hr. Laborer .5 hr. Total 1.0 hr.
Materials	
Method	Cut down trees and prune limbs in accordance with Park Authority procedures. Trim brush at least 1 foot beyond 8' trail edges and having a 10' clearance the width of the trail and 1 foot shoulders. Put cutting deep into woods (or haul away as terrain permits). Blow off trail of debris generated by tree and brush control.
Capital Equipment	Pick up truck (or Off road utility vehicle) Chain saw Pole chain saw Brush cutter Blower (backpack or push)

Trail Clearance



Asphalt and Gravel Trails



Natural Trails



RTT – 4
LEAF & DEBRIS REMOVAL (per 1,000 linear feet)

Leaf & Debris Removal	
Maintenance Task	Leaf and debris removal.
Frequency	Annually (late Fall) or As needed.
Standard	.25 hr. / 1000 l. ft.
Staff Hours	Laborer. .25 hr. Total .25 hr.
Materials	
Method	Tractor mounted blower driven one pass in each direction (as terrain permits)
Capital Equipment	Tractor Fairway blower implement

RTT – 5
SNOW and ICE REMOVAL (per 1,000 linear feet)

Snow and Ice Removal on trails to schools	
Maintenance Task	Remove snow and apply ice-melt to trails providing access to schools
Frequency	As needed.
Standard	.5 hrs. per 1000 l. ft.
Staff Hours	Laborer .5 hr. Laborer .5 hr. Total 1.0 hr.
Materials	
Method	Shovel or use snow blower to remove snow from width and length of trail. Place snow in best location along trail to eliminate, or reduce, the formation of puddles on trail surfaces snow melts. Apply even layer of ice-melt (salt, de-icer). Repeat steps as weather conditions indicates need.
Capital Equipment	Pick up truck (or Off road utility vehicle) Bucket Loader



RTT – 6

CLEANING and REPAIR of CULVERTS (per 1,000 linear feet)

Cleaning and Repair of Culvert Pipes											
Maintenance Task	Cleaning and replacement of Culvert pipes										
Frequency	As needed.										
Standard	1.0 hrs. per 1000 l. ft. for Cleaning, 1.5 hrs. per 1000 l. ft. for Repair										
Staff Hours	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>Cleaning</u></th> <th style="text-align: left;"><u>Repair</u></th> </tr> </thead> <tbody> <tr> <td>Equipment Operator 1.0.hr.</td> <td>Equipment Operator 1.5.hr.</td> </tr> <tr> <td>Laborer 1.0 hr.</td> <td>Laborer 1.5 hr.</td> </tr> <tr> <td><u>Laborer 1.0 hr.</u></td> <td><u>Laborer 1.5 hr.</u></td> </tr> <tr> <td>Total 3.0 hr.</td> <td>Total 4.5 hr.</td> </tr> </tbody> </table>	<u>Cleaning</u>	<u>Repair</u>	Equipment Operator 1.0.hr.	Equipment Operator 1.5.hr.	Laborer 1.0 hr.	Laborer 1.5 hr.	<u>Laborer 1.0 hr.</u>	<u>Laborer 1.5 hr.</u>	Total 3.0 hr.	Total 4.5 hr.
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<u>Laborer 1.0 hr.</u>	<u>Laborer 1.5 hr.</u>										
Total 3.0 hr.	Total 4.5 hr.										
Materials	VA-21A gravel Trail surface material (Dirt, Stonedust, Wood Chip, Asphalt, or Cement) Steel end aprons (or end wall materials for ends of culvert pipe)										
Method	<p><u>Cleaning</u> Shovel, or use back-hoe, to remove debris from each end of culvert pipe. Remove debris buildup along the bottom of (or any blockages in) culvert pipe with shovels, and/or blowers. Haul debris away from culvert pipe.</p> <p><u>Repair</u> Damn, or divert, the down stream water flow into the culvert pipe; or wait until low water level. Repair any erosion spots around culvert pipe ends resulting from water being diverted around pipe. Remove eroded trail surface and base materials from damaged areas around the culvert pipe. Replace, if damaged, the steel end aprons. Re-construct damaged cement, asphalt, rip-rap, or wooden end wall structures connected to ends of culvert pipe. Fill around exposed culvert pipe with VA21-A gravel and compact. Additional materials of surge or Rip-Rap maybe needed to control erosion around the culvert pipe. Replace trail base material lost from erosion and compact. Replace trail surface material lost from erosion and compact. Clean up all excess debris. Re-establish flow through culvert pipe, if diverted or damned.</p>										
Capital Equipment	Pick up truck (or Off road utility vehicle) Dump truck Bucket Loader										



RTT – 7
MAINTENANCE of WATER CROSSINGS (per 1,000 linear feet)

Maintenance of Water Crossings	
Maintenance Task	Maintenance of Water Crossing
Frequency	As needed.
Standard	1.0 hrs. per 1000 l. ft.
Staff Hours	Equipment Operator 1.0 hr. Laborer 1.0 hr. <u>Laborer 1.0 hr.</u> Total 3.0 hr.
Materials	VA-21A gravel Surge Rip-Rap Cement Asphalt
Method	Divert water flow for area to be maintained. Expose and clean out area eroded along water crossing edge. Fill with VA -21A gravel, surge or rip-rap as needed to reduce or eliminate future erosion. Expose and clean out area eroded along sides of water crossing that connect to trail. Replace missing material with VA -21A gravel and compact. Replace missing or damaged surface material (dirt, asphalt, or cement) of trail surface connecting to low water crossing and compact as needed. Re-establish water flow across low water crossing
Capital Equipment	Pick up truck (or Off road utility vehicle) Dump Truck Bucket Loader



RTT – 8

REPAIRS to SIGNS and OTHER AMENITIES (per 1,000 linear feet)

Repair of Signs and Other Amenities	
Maintenance Task	Repair of Signs and Other Amenities
Frequency	As needed.
Standard	.5 hrs. per 1000 l. ft.
Staff Hours	Laborer .5 hr. Laborer .5 hr. Total 1.0 hr.
Materials	Signs, posts, and/or bench or picnic table boards
Method	Replace or tighten any loose bolts. Straighten posts to signs. Stain sign posts, picnic table and bench boards. Replace damaged posts or boards and stain. Replace unreadable or damaged signs.
Capital Equipment	Pick up truck (or Off road utility vehicle)

