

Practice: 558 - Roof Runoff Structure

Scenario: #1 - Gutters and downspouts

Scenario Description: A roof runoff structure, consisting of gutter(s), downspout(s) and splashguards. Used to keep roof clean water runoff uncontaminated and provide a stable outlet to ground surface. Facilitates waste management and protects environment by minimizing clean water additions to waste systems and addresses water quality concerns. Associated practices include Waste Storage Facility (313), Composting Facility (317), Heavy Use Area Protection (561), Watering Facility (614), Underground Outlet (620), Diversion (362), and any relevant irrigation practices.

Before Situation: Applicable where: (1) a roof runoff management facility is included in an overall plan for an overall plan for a waste management system; (2) roof runoff needs to be diverted away from structures or contaminated areas; (3) there is a need to collect, control, and transport runoff from roofs to a stable outlet.

After Situation: Gutters, downspouts and splashguards servicing the portion of the building roof that would otherwise drain into a waste management system or create erosion. Roof line of 180 In.ft. serviced with gutter, downspouts, and appurtances.

Scenario Feature Measure: Linear Length of Roof to be Guttered

Scenario Unit: Foot

Scenario Typical Size: 180

Total Scenario Cost: \$956.28

Scenario Cost/Unit: \$5.31

Cost Details

Component Name	Id	Description	Unit	Cost	Qty	Total
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Equipment Installation

Geotextile, woven	42	Woven Geotextile Fabric. Includes materials, equipment and labor	Square Yard	\$2.19	6	\$13.17
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Materials

Aggregate, Gravel, Graded	46	Gravel, includes materials, equipment and labor to transport and place. Includes washed and unwashed gravel.	Cubic Yard	\$40.43	1	\$40.43
Downspout, Aluminum, Small	1700	Aluminum downspout (3" to 5") in width with hangers. Materials only.	Foot	\$2.61	60	\$156.87
Gutter, Aluminum, Small	1689	Aluminum gutter (4" to 6") in width with hangers. Materials only.	Foot	\$2.65	180	\$477.49

Labor

General Labor	231	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$20.07	4	\$80.28
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Mobilization

Aggregate, Shipping, Cubic Yard-mile	2360	Mobilization of aggregate material beyond 20 miles of local delivery from quarry to construction site. Cubic Yard-mile (Cubic Yard * miles of haul).	Cubic Yard Mile	\$0.35	50	\$17.29
Mobilization, small equipment	1138	Equipment <70 HP but can't be transported by a pick-up truck or with typical weights between 3,500 to 14,000 pounds.	Each	\$170.76	1	\$170.76

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Scenario: #6 - Drip pad

Scenario Description: A roof runoff structure, consisting of a pad filled with rock located at the drip line of a building. Used to provide a stable outlet to ground surface. Environmental/design considerations, for example – snow loads, or a building without proper structural support needed for gutters dictate the use of a trench drain. Facilitates waste management and protects the environment by minimizing clean water additions to waste systems and addresses water quality concerns. Associated practices include Waste Storage Facility (313), Composting Facility (317), Heavy Use Area Protection (561), Underground Outlet (620), and Diversion (362).

Before Situation: Applicable where: (1) a roof runoff management facility is included in an overall plan for an overall plan for a waste management system; (2) roof runoff needs to be diverted away from structures or contaminated areas; (3) there is a need to collect, control, and transport runoff from roofs to a stable outlet.

After Situation: A 6" deep by 2' wide by 200 long deep rock filled splash pad, servicing the portion of the building roof that creates erosion and addresses a water quality resource concern.

Scenario Feature Measure: Linear length of roof to be drained

Scenario Unit: Foot

Scenario Typical Size: 200

Total Scenario Cost: \$779.95

Scenario Cost/Unit: \$3.90

Cost Details

Component Name	Id	Description	Unit	Cost	Qty	Total
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Materials

Aggregate, Gravel, Graded	46	Gravel, includes materials, equipment and labor to transport and place. Includes washed and unwashed gravel.	Cubic Yard	\$40.43	7.4	\$299.20
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Equipment Installation

Excavation, Common Earth, side cast, small equipment	48	Bulk excavation and side casting of common earth with hydraulic excavator with less than 1 CY capacity. Includes equipment and labor.	Cubic Yard	\$1.89	7.4	\$13.99
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Labor

General Labor	231	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$20.07	2	\$40.14
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Mobilization

Aggregate, Shipping, Cubic Yard-mile	2360	Mobilization of aggregate material beyond 20 miles of local delivery from quarry to construction site. Cubic Yard-mile (Cubic Yard * miles of haul).	Cubic Yard Mile	\$0.35	740	\$255.86
Mobilization, small equipment	1138	Equipment <70 HP but can't be transported by a pick-up truck or with typical weights between 3,500 to 14,000 pounds.	Each	\$170.76	1	\$170.76