

Practice: 575 - Trails and Walkways

Scenario: #1 - Walkway, Earth or Vegetated

Scenario Description:

Layout and construct an earth or vegetated trail to facilitate the movement of animals, people, or off-road vehicles to provide or improve access to forage, water, working/handling facilities, and/or shelter, Improve grazing efficiency and distribution, and/or protect ecologically sensitive, erosive and/or potentially erosive sites, pedestrian or off-road vehicle access to agricultural, construction, or maintenance operations, provide trails for recreational activities or access to recreation sites and address the resource concerns of soil erosion and water quality degradation. Costs include excavation, shaping, grading, earth and or vegetated surfaces and all equipment, labor and incidental materials necessary to install the practice.

Before Situation:

This practice applies on all lands where management of animal or human movement is needed to address soil erosion and water quality resource concerns. This practice applies to a trails or walkways constructed for use by off-road vehicles, such as All-Terrain Vehicles or snowmobiles, which are not designed for use on public roads. It does not apply to roads constructed for movement of equipment or vehicles. Use NRCS Conservation Practice Standard Access Road (Code 560).

After Situation:

The typical trail will be a 12 foot wide 300 foot long, 3600 square foot lane of earth and vegetation. All excavation, grading and shaping necessary to provide a smooth permanent travel surface for livestock or people is included. Included is 45 CY of excavation, vegetation of 1800 square foot for surfacing, 1800 square foot of earthen surfacing and vegetation of 900 square foot of disturbed areas. Consider the adequacy of natural surfacing. If the lane requires planting, the vegetation is provided. Where earth and or vegetation is not practical, adequate surface protection is provided under a different scenario. Stream Crossing, Code 578, will be used when the trail or lane crosses streams or shallow water areas. Shaping of needed water bars to control and direct water flow in the trail is part of this scenario. All culverts will be applied under Structure for Water Control (587). Use Access Road, Code 560 and Diversion (362) as appropriate. Fencing, Code 382, will be used when needed to control animal movement.

Scenario Feature Measure: Area of trail

Scenario Unit: Square Foot

Scenario Typical Size: 3,600

Scenario Cost: \$1,021.14

Scenario Cost/Unit: \$0.28

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation						
Track Loader, 95HP	935	Equipment and power unit costs. Labor not included.	Hour	\$100.97	4	\$403.88
Tillage, Light	945	Includes light disking (tandem) or field cultivator. Includes equipment, power unit and labor costs.	Acre	\$12.02	0.1	\$1.20
Fertilizer, ground application, dry bulk	950	Dry bulk fertilizer application performed by ground equipment. Includes equipment, power unit and labor costs.	Acre	\$7.35	0.1	\$0.74
Seeding Operation, Broadcast, Ground	959	Broadcast seed via ground operation. May require post tillage operation to incorporate seed. Includes equipment, power unit and labor costs.	Acre	\$13.63	0.1	\$1.36
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	\$20.77	4	\$83.08
Equipment Operators, Heavy	233	Includes: Cranes, Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12", Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	Hour	\$28.85	4	\$115.40
Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hour	\$41.91	2	\$83.82
Materials						
Lime, ENM	75	Fertilizer: Limestone Spread on field.	Ton	\$133.79	0.2	\$26.76
One Species, Warm Season, Introduced Perennial Grass (seed or sprigs)	2323	Introduced, warm season perennial grass seed or sprig. Includes material and shipping only.	Acre	\$64.09	0.041	\$2.63

Materials

Potassium, K ₂ O	74	K ₂ O supplied by Muriate Of Potash. Price is not per pound of total product applied, no conversion is needed.	Pound	\$0.51	6	\$3.06
Phosphorus, P ₂ O ₅	73	Price per pound of P ₂ O ₅ supplied by Superphosphate. Price is not per pound of total product applied, no conversion is needed.	Pound	\$0.92	6	\$5.52
Nitrogen (N), Urea	71	Price per pound of N supplied by Urea. Price is not per pound of total product applied, no conversion is needed.	Pound	\$0.71	3	\$2.13

Mobilization

Mobilization, medium equipment	1139	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	Each	\$291.56	1	\$291.56
--------------------------------	------	---	------	----------	---	----------

Practice: 575 - Trails and Walkways

Scenario: #2 - Walkway, reinforced Concrete

Scenario Description:

Layout and construct an reinforced concrete walkway on a gravel or sand foundation to facilitate the movement of animals, people, or off-road vehicles to provide or improve access to forage, water, working/handling facilities, and/or shelter, Improve grazing efficiency and distribution, and/or protect ecologically sensitive, erosive and/or potentially erosive sites, pedestrian or off-road vehicle access to agricultural, construction, or maintenance operations, provide walkways for recreational activities or access to recreation sites and address the resource concerns of soil erosion and water quality degradation. Costs include excavation, shaping, grading, reinforced concrete surfacing, vegetation of disturbed areas, all equipment, labor and incidental materials necessary to install the practice.

Before Situation:

This practice applies on all lands where management of animal or human movement is needed to address soil erosion and water quality resource concerns. This practice applies to a trails or walkways constructed for use by off-road vehicles, such as All-Terrain Vehicles or snowmobiles, which are not designed for use on public roads. It does not apply to roads constructed for movement of equipment or vehicles. Use NRCS Conservation Practice Standard Access Road (Code 560).

After Situation:

The typical walkway will be a 12 foot wide 300 foot long, 3600 square foot of reinforced concrete. All excavation, grading and shaping necessary to provide a smooth permanent travel surface for livestock or people is included. Included is reinforced concrete of 3600 square foot for surfacing, and vegetation of 900 square foot of disturbed areas along edges. The walkway consist of approximately 22 CY of excavation, 45 CY of reinforced concrete with a 45 CY gravel or sand foundation. Stream Crossing, Code 578, will be used when the walkway crosses streams or shallow water areas. All culverts will be applied under Structure for Water Control (587). Use Access Road, Code 560 and Diversion (362) as appropriate. Fencing, Code 382, will be used when needed to control animal movement.

Scenario Feature Measure: Area of Walkway

Scenario Unit: Square Foot

Scenario Typical Size: 3,600

Scenario Cost: \$11,151.54

Scenario Cost/Unit: \$3.10

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation						
Concrete, CIP, slab on grade, reinforced	37	Steel reinforced concrete formed and cast-in-placed as a slab on grade by chute placement. Typical strength is 3000 to 4000 psi. Includes materials, labor and equipment to transport, place and finish.	Cubic yard	\$132.98	58	\$7,712.84
Dozer, 80 HP	929	Track mounted Dozer with horsepower range of 60 to 90. Equipment and power unit costs. Labor not included.	Hour	\$76.63	6	\$459.78
Earthfill, Roller Compacted	49	Earthfill, roller or machine compacted, includes equipment and labor	Cubic yard	\$4.38	70	\$306.60
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	\$20.77	6	\$124.62
Equipment Operators, Heavy	233	Includes: Cranes, Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12", Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	Hour	\$28.85	6	\$173.10
Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hour	\$41.91	6	\$251.46
Materials						
Aggregate, Sand, Graded, Washed	45	Sand, typical ASTM C33 gradation, includes materials, equipment and labor to transport and place	Cubic yard	\$31.40	49	\$1,538.60
One Species, Warm Season, Native Perennial Grass	2322	Native, warm season perennial grass. Includes material and shipping only.	Acre	\$70.93	0.02	\$1.42

Mobilization

Mobilization

Mobilization, medium equipment	1139	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	Each	\$291.56	2	\$583.12
--------------------------------	------	---	------	----------	---	----------

Practice: 575 - Trails and Walkways

Scenario: #3 - Walkway with Gravel, no Geotextile

Scenario Description:

Layout and construct a walkway with rock and or gravel on solid earthen foundation for surface treatment, to facilitate the movement of animals, people, or off-road vehicles to provide or improve access to forage, water, working/handling facilities, and/or shelter, Improve grazing efficiency and distribution, and/or protect ecologically sensitive, erosive and/or potentially erosive sites, pedestrian or off-road vehicle access to agricultural, construction, or maintenance operations, provide walkways for recreational activities or access to recreation sites and address the resource concerns of soil erosion and water quality degradation. Costs include excavation, shaping, grading, rock and or gravel, vegetation of disturbed areas, all equipment, labor and incidental materials necessary to install the practice.

Before Situation:

This practice applies on all lands where management of animal or human movement is needed to address soil erosion and water quality resource concerns. This practice applies to a trails or walkways constructed for use by off-road vehicles, such as All-Terrain Vehicles or snowmobiles, which are not designed for use on public roads. It does not apply to roads constructed for movement of equipment or vehicles. Use NRCS Conservation Practice Standard Access Road (Code 560).

After Situation:

The typical walkway will be a 12 foot wide 300 foot long, 3600 square foot of rock and or gravel on a geotextile fabric foundation surface treatment. All excavation, grading and shaping necessary to provide a smooth permanent travel surface for livestock or people is included. Included is aggregate gravel of 3600 square foot for surfacing, and vegetation of 900 square foot of disturbed areas along edges. The walkway consist of approximately 22 CY of excavation, 45 CY of aggregate gravel on a 400 SY of geotextile fabric foundation. Stream Crossing, Code 578, will be used when the walkway crosses streams or shallow water areas. All culverts will be applied under Structure for Water Control (587). Use Access Road, Code 560 and Diversion (362) as appropriate. Fencing, Code 382, will be used when needed to control animal movement.

Scenario Feature Measure: Area of Walkway

Scenario Unit: Square Foot

Scenario Typical Size: 3,600

Scenario Cost: \$5,736.10

Scenario Cost/Unit: \$1.59

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation						
Roller, static, smooth, self propelled	1392	Self propelled smooth drum static roller compactor, typically 1.5 ton with 34" roller. Equipment cost only. Does not include labor.	Hour	\$22.83	4	\$91.32
Lime application	953	Lime application performed by ground equipment. Includes equipment, power unit and labor costs.	Acre	\$10.96	0.1	\$1.10
Fertilizer, ground application, dry bulk	950	Dry bulk fertilizer application performed by ground equipment. Includes equipment, power unit and labor costs.	Acre	\$7.35	0.1	\$0.74
Seeding Operation, Broadcast, Ground	959	Broadcast seed via ground operation. May require post tillage operation to incorporate seed. Includes equipment, power unit and labor costs.	Acre	\$13.63	0.1	\$1.36
Track Loader, 95HP	935	Equipment and power unit costs. Labor not included.	Hour	\$100.97	4	\$403.88
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	\$20.77	4	\$83.08
Equipment Operators, Heavy	233	Includes: Cranes, Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12", Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	Hour	\$28.85	8	\$230.80
Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hour	\$41.91	2	\$83.82

Materials

Materials

Aggregate, Gravel, Graded	46	Gravel, includes materials, equipment and labor to transport and place. Includes washed and unwashed gravel.	Cubic yard	\$31.83	45	\$1,432.35
Aggregate, Sand, Graded, Washed	45	Sand, typical ASTM C33 gradation, includes materials, equipment and labor to transport and place	Cubic yard	\$31.40	23	\$722.20
Nitrogen (N), Urea	71	Price per pound of N supplied by Urea. Price is not per pound of total product applied, no conversion is needed.	Pound	\$0.71	6	\$4.26
Phosphorus, P2O5	73	Price per pound of P2O5 supplied by Superphosphate. Price is not per pound of total product applied, no conversion is needed.	Pound	\$0.92	3	\$2.76
Potassium, K2O	74	K2O supplied by Muriate Of Potash. Price is not per pound of total product applied, no conversion is needed.	Pound	\$0.51	3	\$1.53
Lime, ENM	75	Fertilizer: Limestone Spread on field.	Ton	\$133.79	0.2	\$26.76
Rock Riprap, graded, angular, material and shipping	1200	Graded Rock Riprap for all gradation ranges. Includes materials and delivery only.	Ton	\$30.83	67	\$2,065.61
One Species, Warm Season, Native Perennial Grass	2322	Native, warm season perennial grass. Includes material and shipping only.	Acre	\$70.93	0.02	\$1.42

Mobilization

Mobilization, medium equipment	1139	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	Each	\$291.56	2	\$583.12
--------------------------------	------	---	------	----------	---	----------

Practice: 575 - Trails and Walkways

Scenario: #4 - Walkway with Gravel and Geotextile

Scenario Description:

Layout and construct a walkway with rock and or gravel on a geotextile fabric foundation surface treatment, to facilitate the movement of animals, people, or off-road vehicles to provide or improve access to forage, water, working/handling facilities, and/or shelter, Improve grazing efficiency and distribution, and/or protect ecologically sensitive, erosive and/or potentially erosive sites, pedestrian or off-road vehicle access to agricultural, construction, or maintenance operations, provide walkways for recreational activities or access to recreation sites and address the resource concerns of soil erosion and water quality degradation. Costs include excavation, shaping, grading, rock and or gravel, geotextile, vegetation of disturbed areas, all equipment, labor and incidental materials necessary to install the practice.

Before Situation:

This practice applies on all lands where management of animal or human movement is needed to address soil erosion and water quality resource concerns. This practice applies to a trails or walkways constructed for use by off-road vehicles, such as All-Terrain Vehicles or snowmobiles, which are not designed for use on public roads. It does not apply to roads constructed for movement of equipment or vehicles. Use NRCS Conservation Practice Standard Access Road (Code 560).

After Situation:

The typical walkway will be a 12 foot wide 300 foot long, 3600 square foot of rock and or gravel on a geotextile fabric foundation surface treatment. All excavation, grading and shaping necessary to provide a smooth permanent travel surface for livestock or people is included. Included is aggregate gravel of 3600 square foot for surfacing, and vegetation of 900 square foot of disturbed areas along edges. The walkway consist of approximately 22 CY of excavation, 45 CY of aggregate gravel on a 400 SY of geotextile fabric foundation. Stream Crossing, Code 578, will be used when the walkway crosses streams or shallow water areas. All culverts will be applied under Structure for Water Control (587). Use Access Road, Code 560 and Diversion (362) as appropriate. Fencing, Code 382, will be used when needed to control animal movement.

Scenario Feature Measure: Area of Walkway

Scenario Unit: Square Foot

Scenario Typical Size: 3,600

Scenario Cost: \$7,047.10

Scenario Cost/Unit: \$1.96

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation						
Roller, static, smooth, self propelled	1392	Self propelled smooth drum static roller compactor, typically 1.5 ton with 34" roller. Equipment cost only. Does not include labor.	Hour	\$22.83	6	\$136.98
Seeding Operation, Broadcast, Ground	959	Broadcast seed via ground operation. May require post tillage operation to incorporate seed. Includes equipment, power unit and labor costs.	Acre	\$13.63	0.1	\$1.36
Fertilizer, ground application, dry bulk	950	Dry bulk fertilizer application performed by ground equipment. Includes equipment, power unit and labor costs.	Acre	\$7.35	0.1	\$0.74
Track Loader, 95HP	935	Equipment and power unit costs. Labor not included.	Hour	\$100.97	6	\$605.82
Geotextile, woven	42	Woven Geotextile Fabric. Includes materials, equipment and labor	Square Yard	\$2.37	400	\$948.00
Lime application	953	Lime application performed by ground equipment. Includes equipment, power unit and labor costs.	Acre	\$10.96	0.1	\$1.10
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	\$20.77	4	\$83.08
Equipment Operators, Heavy	233	Includes: Cranes, Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12", Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	Hour	\$28.85	12	\$346.20
Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hour	\$41.91	2	\$83.82

Materials

Lime, ENM	75	Fertilizer: Limestone Spread on field.	Ton	\$133.79	0.2	\$26.76
Aggregate, Gravel, Graded	46	Gravel, includes materials, equipment and labor to transport and place. Includes washed and unwashed gravel.	Cubic yard	\$31.83	45	\$1,432.35
Rock Riprap, graded, angular, material and shipping	1200	Graded Rock Riprap for all gradation ranges. Includes materials and delivery only.	Ton	\$30.83	67	\$2,065.61
Potassium, K2O	74	K2O supplied by Muriate Of Potash. Price is not per pound of total product applied, no conversion is needed.	Pound	\$0.51	3	\$1.53
Phosphorus, P2O5	73	Price per pound of P2O5 supplied by Superphosphate. Price is not per pound of total product applied, no conversion is needed.	Pound	\$0.92	3	\$2.76
Nitrogen (N), Urea	71	Price per pound of N supplied by Urea. Price is not per pound of total product applied, no conversion is needed.	Pound	\$0.71	6	\$4.26
Aggregate, Sand, Graded, Washed	45	Sand, typical ASTM C33 gradation, includes materials, equipment and labor to transport and place	Cubic yard	\$31.40	23	\$722.20
One Species, Warm Season, Native Perennial Grass	2322	Native, warm season perennial grass. Includes material and shipping only.	Acre	\$70.93	0.02	\$1.42

Mobilization

Mobilization, medium equipment	1139	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	Each	\$291.56	2	\$583.12
--------------------------------	------	---	------	----------	---	----------

Practice: 575 - Trails and Walkways

Scenario: #5 - Walkway with Rock/Gravel in GeoCell on Geotextile

Scenario Description:

Layout and construct a walkway with rock and or gravel in a cellular containment grid on a geotextile fabric foundation surface treatment, to facilitate the movement of animals, people, or off-road vehicles to provide or improve access to forage, water, working/handling facilities, and/or shelter. Improve grazing efficiency and distribution, and/or protect ecologically sensitive, erosive and/or potentially erosive sites, pedestrian or off-road vehicle access to agricultural, construction, or maintenance operations, provide walkways for recreational activities or access to recreation sites and address the resource concerns of soil erosion and water quality degradation. Costs include excavation, shaping, grading, rock and or gravel, containment grid, geotextile, vegetation of disturbed areas, all equipment, labor and incidental materials necessary to install the practice.

Before Situation:

This practice applies on all lands where management of animal or human movement is needed to address soil erosion and water quality resource concerns. This practice applies to a trails or walkways constructed for use by off-road vehicles, such as All-Terrain Vehicles or snowmobiles, which are not designed for use on public roads. It does not apply to roads constructed for movement of equipment or vehicles. Use NRCS Conservation Practice Standard Access Road (Code 560).

After Situation:

The typical walkway will be a 12 foot wide 300 foot long, 3600 square foot of rock and or gravel in a cellular containment grid on a geotextile fabric foundation surface treatment. All excavation, grading and shaping necessary to provide a smooth permanent travel surface for livestock or people is included. Included is aggregate gravel of 3600 square foot for surfacing, and vegetation of 900 square foot of disturbed areas. The walkway consist of approximately 22 CY of excavation, 45 CY of aggregate gravel in 400 SY of 4 inch geocell on a 400 SY of geotextile fabric foundation. Stream Crossing, Code 578, will be used when the walkway crosses streams or shallow water areas. All culverts will be applied under Structure for Water Control (587). Use Access Road, Code 560 and Diversion (362) as appropriate. Fencing, Code 382, will be used when needed to control animal movement.

Scenario Feature Measure: Area of Walkway

Scenario Unit: Square Foot

Scenario Typical Size: 3,600

Scenario Cost: \$14,309.74

Scenario Cost/Unit: \$3.97

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation						
Seeding Operation, Broadcast, Ground	959	Broadcast seed via ground operation. May require post tillage operation to incorporate seed. Includes equipment, power unit and labor costs.	Acre	\$13.63	0.1	\$1.36
Geotextile, woven	42	Woven Geotextile Fabric. Includes materials, equipment and labor	Square Yard	\$2.37	400	\$948.00
Dozer, 80 HP	929	Track mounted Dozer with horsepower range of 60 to 90. Equipment and power unit costs. Labor not included.	Hour	\$76.63	4	\$306.52
Skidsteer, 80 HP	933	Skidsteer loader with horsepower range of 60 to 90. Equipment and power unit costs. Labor not included.	Hour	\$49.21	2	\$98.42
Lime application	953	Lime application performed by ground equipment. Includes equipment, power unit and labor costs.	Acre	\$10.96	0.1	\$1.10
Labor						
Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hour	\$41.91	4	\$167.64
Skilled Labor	230	Labor requiring a high level skill set: Includes carpenters, welders, electricians, conservation professionals involved with data collection, monitoring, and or record keeping, etc.	Hour	\$32.18	4	\$128.72
Equipment Operators, Heavy	233	Includes: Cranes, Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12", Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	Hour	\$28.85	4	\$115.40
Equipment Operators, Light	232	Includes: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12", Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers	Hour	\$22.97	2	\$45.94

Materials

Aggregate, Gravel, Graded	46	Gravel, includes materials, equipment and labor to transport and place. Includes washed and unwashed gravel.	Cubic yard	\$31.83	45	\$1,432.35
Nitrogen (N), Urea	71	Price per pound of N supplied by Urea. Price is not per pound of total product applied, no conversion is needed.	Pound	\$0.71	6	\$4.26
Potassium, K2O	74	K2O supplied by Muriate Of Potash. Price is not per pound of total product applied, no conversion is needed.	Pound	\$0.51	3	\$1.53
One Species, Warm Season, Native Perennial Grass	2322	Native, warm season perennial grass. Includes material and shipping only.	Acre	\$70.93	0.02	\$1.42
GeoCell, 4"	1054	Polymer 3-D cellular grid 4" deep that is filled with stone or earth. Includes materials, labor and equipment for the geocell only, does not include backfill.	Square Yard	\$26.84	400	\$10,736.00
Lime, ENM	75	Fertilizer: Limestone Spread on field.	Ton	\$133.79	0.2	\$26.76
Phosphorus, P2O5	73	Price per pound of P2O5 supplied by Superphosphate. Price is not per pound of total product applied, no conversion is needed.	Pound	\$0.92	3	\$2.76

Mobilization

Mobilization, medium equipment	1139	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	Each	\$291.56	1	\$291.56
--------------------------------	------	---	------	----------	---	----------

Practice: 575 - Trails and Walkways

Scenario: #6 - Walkway with Fly Ash on Geotextile

Scenario Description:

Layout and construct a walkway with Fly Ash on a geotextile fabric foundation surface treatment, to facilitate the movement of animals, people, or off-road vehicles to provide or improve access to forage, water, working/handling facilities, and/or shelter, Improve grazing efficiency and distribution, and/or protect ecologically sensitive, erosive and/or potentially erosive sites, pedestrian or off-road vehicle access to agricultural, construction, or maintenance operations, provide walkways for recreational activities or access to recreation sites and address the resource concerns of soil erosion and water quality degradation. Costs include excavation, shaping, grading, Fly Ash, geotextile, vegetation of disturbed areas, all equipment, labor and incidental materials necessary to install the practice.

Before Situation:

This practice applies on all lands where management of animal or human movement is needed to address soil erosion and water quality resource concerns. This practice applies to a trails or walkways constructed for use by off-road vehicles, such as All-Terrain Vehicles or snowmobiles, which are not designed for use on public roads. It does not apply to roads constructed for movement of equipment or vehicles. Use NRCS Conservation Practice Standard Access Road (Code 560).

After Situation:

The typical walkway will be a 12 foot wide 300 foot long, 3600 square foot of Fly Ash on a geotextile fabric foundation surface treatment. All excavation, grading and shaping necessary to provide a smooth permanent travel surface for livestock or people is included. Included is Fly Ash of 3600 square foot for surfacing, and vegetation of 900 square foot of disturbed areas. The walkway consist of approximately 22 CY of excavation, 45 CY of Fly Ash on a 400 SY of geotextile fabric foundation. Stream Crossing, Code 578, will be used when the walkway crosses streams or shallow water areas. All culverts will be applied under Structure for Water Control (587). Use Access Road, Code 560 and Diversion (362) as appropriate. Fencing, Code 382, will be used when needed to control animal movement.

Scenario Feature Measure: Area of Walkway

Scenario Unit: Square Foot

Scenario Typical Size: 3,600

Scenario Cost: \$3,172.02

Scenario Cost/Unit: \$0.88

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation						
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	Hour	\$42.39	3	\$127.17
Geotextile, woven	42	Woven Geotextile Fabric. Includes materials, equipment and labor	Square Yard	\$2.37	400	\$948.00
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	\$2.36	22	\$51.92
Dozer, 140 HP	927	Track mounted Dozer with horsepower range of 125 to 160. Equipment and power unit costs. Labor not included.	Hour	\$141.76	3	\$425.28
Labor						
Skilled Labor	230	Labor requiring a high level skill set: Includes carpenters, welders, electricians, conservation professionals involved with data collection, monitoring, and or record keeping, etc.	Hour	\$32.18	4	\$128.72
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	\$20.77	5	\$103.85
Equipment Operators, Heavy	233	Includes: Cranes, Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12", Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	Hour	\$28.85	3	\$86.55
Materials						
Fly Ash, BAB	52	Fly Ash, Bottom Ash Blend, includes material and delivery	Cubic yard	\$22.39	45	\$1,007.55

Materials

One Species, Warm Season, Native Perennial Grass	2322	Native, warm season perennial grass. Includes material and shipping only.	Acre	\$70.93	0.02	\$1.42
--	------	---	------	---------	------	--------

Mobilization

Mobilization, medium equipment	1139	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	Each	\$291.56	1	\$291.56
--------------------------------	------	---	------	----------	---	----------

Practice: 575 - Trails and Walkways

Scenario: #7 - Walkway, Bituminous Concrete Pavement

Scenario Description:

Layout and construct a bituminous concrete pavement surface treatment on aggregate gravel foundation walkway to facilitate the movement of animals, people, or off-road vehicles to provide or improve access to forage, water, working/handling facilities, and/or shelter, Improve grazing efficiency and distribution, and/or protect ecologically sensitive, erosive and/or potentially erosive sites, pedestrian or off-road vehicle access to agricultural, construction, or maintenance operations, provide walkways for recreational activities or access to recreation sites and address the resource concerns of soil erosion and water quality degradation. Costs include excavation, shaping, grading, bituminous concrete pavement surfacing, vegetation of disturbed areas, all equipment, labor and incidental materials necessary to install the practice.

Before Situation:

This practice applies on all lands where management of animal or human movement is needed to address soil erosion and water quality resource concerns. This practice applies to a trails or walkways constructed for use by off-road vehicles, such as All-Terrain Vehicles or snowmobiles, which are not designed for use on public roads. It does not apply to roads constructed for movement of equipment or vehicles. Use NRCS Conservation Practice Standard Access Road (Code 560).

After Situation:

The typical walkway will be a 12 foot wide 300 foot long, 3600 square foot of bituminous concrete pavement on aggregate gravel foundation. All excavation, grading and shaping necessary to provide a smooth permanent travel surface for livestock or people is included. Included is bituminous concrete pavement of 3600 square foot for surfacing, and vegetation of 900 square foot of disturbed areas. The walkway consist of approximately 22 CY of excavation, 3600 square feet bituminous concrete pavement, with a 45 CY gravel foundation. Stream Crossing, Code 578, will be used when the walkway crosses streams or shallow water areas. All culverts will be applied under Structure for Water Control (587). Use Access Road, Code 560 and Diversion (362) as appropriate. Fencing, Code 382, will be used when needed to control animal movement.

Scenario Feature Measure: Area of Walkway

Scenario Unit: Square Foot

Scenario Typical Size: 3,600

Scenario Cost: \$11,000.82

Scenario Cost/Unit: \$3.06

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price (\$/unit)	Quantity	Cost
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	\$2.36	22	\$51.92
Dozer, 140 HP	927	Track mounted Dozer with horsepower range of 125 to 160. Equipment and power unit costs. Labor not included.	Hour	\$141.76	3	\$425.28
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	Hour	\$42.39	3	\$127.17
Labor						
Skilled Labor	230	Labor requiring a high level skill set: Includes carpenters, welders, electricians, conservation professionals involved with data collection, monitoring, and or record keeping, etc.	Hour	\$32.18	4	\$128.72
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	\$20.77	5	\$103.85
Equipment Operators, Heavy	233	Includes: Cranes, Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12", Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	Hour	\$28.85	3	\$86.55
Materials						
Aggregate, Gravel, Graded	46	Gravel, includes materials, equipment and labor to transport and place. Includes washed and unwashed gravel.	Cubic yard	\$31.83	45	\$1,432.35

Materials

Asphalt, pavement	1867	Bituminous Concrete, includes materials, equipment and labor for 4" layer, base not included.	Square Foot	\$2.32	3600	\$8,352.00
One Species, Warm Season, Native Perennial Grass	2322	Native, warm season perennial grass. Includes material and shipping only.	Acre	\$70.93	0.02	\$1.42

Mobilization

Mobilization, medium equipment	1139	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	Each	\$291.56	1	\$291.56
--------------------------------	------	---	------	----------	---	----------