

**Practice: 560 - Access Road**

**Scenario: #1 - Constructed road with Heavy Stone Base and Geotextile**

**Scenario Description:**

A compacted stone road is constructed on relatively level terrain. Poor sub-base material and/or seasonal water table issues require geotextile to keep material from pumping in stone. A properly constructed, well-defined access road addresses resource concerns related to compaction, emissions of fugitive dust, and excessive sediment in surface water. Proper dust control measures are taken during construction to reduce short-term air quality deterioration. Costs include the excavation, shaping, grading, and all equipment, labor and incidental materials necessary to install the practice.

Associated Practices: Critical Area Seeding (342), Diversion (362), Dust Control on Unpaved Roads and Surfaces (373), Land Clearing (460), Obstruction Removal (500), Stream Crossing (578), and Structures for Water Control (587)

**Before Situation:**

An agricultural enterprise with equipment and vehicle use has compaction, excessive sediment and turbidity in surface water, reduced visibility, and emissions from fugitive dust as a result of not having a fixed travel way. The area is relatively dry and has level terrain with stable soils.

**After Situation:**

A road is constructed 14 feet wide with an average cut of 12 inches. The entire length requires additional sub-base stabilization with geotextile and 12 inch rock base with upper zone of compacted finer grade material. Planned grades include all dips and water bars. A properly constructed, well-defined access road reduces or eliminates compaction, emissions of fugitive dust, and excess sediment in surface water by reducing the uncontrolled sediment transport and improving the drainage of irrigated lands.

**Scenario Feature Measure:** Length of Roadway

**Scenario Unit:** Linear Foot

**Scenario Typical Size:** 300

**Scenario Cost:** \$8,398.71

**Scenario Cost/Unit:** \$28.00

**Cost Details (by category):**

Component Name	ID	Component Description	Unit	Price (\$/unit)	Quantity	Cost
<b>Equipment/Installation</b>						
Geotextile, woven	42	Woven Geotextile Fabric. Includes materials, equipment and labor	Square Yard	\$2.37	467	\$1,106.79
Earthfill, Roller Compacted	49	Earthfill, roller or machine compacted, includes equipment and labor	Cubic yard	\$4.38	50	\$219.00
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	16	\$2,268.16
Stripping and stockpiling, topsoil	1199	Stripping and stockpiling of topsoil adjacent to stripping area. Includes equipment and labor.	Cubic Yard	\$0.97	50	\$48.50
<b>Labor</b>						
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	6	\$193.08
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	16	\$461.60
<b>Materials</b>						
One Species, Cool Season, Native Perennial Grass	2312	Native, cool season perennial grass. Includes material and shipping only.	Acre	\$161.29	0.05	\$8.06
Aggregate, Gravel, Ungraded, Quarry Run	1099	Includes materials, equipment and labor	Cubic yard	\$21.94	160	\$3,510.40
<b>Mobilization</b>						
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

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**Scenario: #2 - Constructed road with Heavy Stone Base**

**Scenario Description:**

A compacted stone road is constructed on relatively level terrain with no water table issues. A properly constructed, well-defined access road addresses resource concerns related to compaction, emissions of fugitive dust, and excessive sediment in surface water. Proper dust control measures are taken during construction to reduce short-term air quality deterioration. Costs include the excavation, shaping, grading, and all equipment, labor and incidental materials necessary to install the practice.

Associated Practices: Critical Area Seeding (342), Diversion (362), Dust Control on Unpaved Roads and Surfaces (373), Land Clearing (460), Obstruction Removal (500), Stream Crossing (578), and Structures for Water Control (587).

**Before Situation:**

An agricultural enterprise with equipment and vehicle use has compaction, excessive sediment and turbidity in surface water, reduced visibility, and emissions from fugitive dust as a result of not having a fixed travel way. The area is relatively wet and swampy or has unstable, but level terrain.

**After Situation:**

A road is constructed 14 feet wide with an average cut of 12 inches. The entire length requires 12 inch rock base with upper zone of compacted finer grade material. Planned grades include all dips and water bars. A properly constructed, well-defined access road reduces or eliminates compaction, emissions of fugitive dust, and excess sediment in surface water by reducing the uncontrolled sediment transport and improving the drainage of irrigated lands.

**Scenario Feature Measure:** Length of Roadway

**Scenario Unit:** Linear Foot

**Scenario Typical Size:** 300

**Scenario Cost:** \$6,570.53

**Scenario Cost/Unit:** \$21.90

**Cost Details (by category):**

Component Name	ID	Component Description	Unit	Price (\$/unit)	Quantity	Cost
<b>Equipment/Installation</b>						
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	12	\$1,701.12
Earthfill, Roller Compacted	49	Earthfill, roller or machine compacted, includes equipment and labor	Cubic yard	\$4.38	40	\$175.20
Stripping and stockpiling, topsoil	1199	Stripping and stockpiling of topsoil adjacent to stripping area. Includes equipment and labor.	Cubic Yard	\$0.97	55	\$53.35
<b>Labor</b>						
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	6	\$193.08
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
<b>Materials</b>						
Aggregate, Gravel, Ungraded, Quarry Run	1099	Includes materials, equipment and labor	Cubic yard	\$21.94	160	\$3,510.40
One Species, Cool Season, Native Perennial Grass	2312	Native, cool season perennial grass. Includes material and shipping only.	Acre	\$161.29	0.05	\$8.06
<b>Mobilization</b>						
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

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**Scenario: #3 - Rehabilitation of Existing Road or site with solid base**

**Scenario Description:**

An existing access road is repaired with 6 inches thick of compacted gravel surface. Existing road or site has a good sub-base on level terrain. A properly repaired, well-defined access road addresses resource concerns related to compaction, emissions of fugitive dust, and excessive sediment in surface water. Proper dust control measures are taken during construction to reduce short-term air quality deterioration. An average rehabilitation costs 35% less than a new installation. Costs include excavation, shaping, grading, and all equipment, labor and incidental materials necessary to install the practice.

Associated Practices: Critical Area Seeding (342), Diversion (362), Dust Control on Unpaved Roads and Surfaces (373), Land Clearing (460), Obstruction Removal (500), Stream Crossing (578), and Structures for Water Control (587).

**Before Situation:**

An existing access road is beyond its useful lifespan and can no longer be used as intended without rehabilitation. If access road is left in its current condition, site will continue to degrade with continued compaction, excessive sediment in surface water, and emissions of fugitive dust.

**After Situation:**

The road will be restored to a full 14 feet width of 6 inches of compacted gravel surfaces. Minimal regarding is required. Planned grades include all dips and water bars. A properly repaired, well-defined access road reduces or eliminates compaction, emissions of fugitive dust, and excess sediment in surface water by reducing the uncontrolled sediment transport and improving the drainage of irrigated lands

**Scenario Feature Measure:** Length of Roadway

**Scenario Unit:** Linear Foot

**Scenario Typical Size:** 300

**Scenario Cost:** \$4,202.10

**Scenario Cost/Unit:** \$14.01

**Cost Details (by category):**

Component Name	ID	Component Description	Unit	Price (\$/unit)	Quantity	Cost
<b>Equipment/Installation</b>						
Earthfill, Roller Compacted	49	Earthfill, roller or machine compacted, includes equipment and labor	Cubic yard	\$4.38	78	\$341.64
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	8	\$1,134.08
<b>Labor</b>						
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	6	\$193.08
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
<b>Materials</b>						
Aggregate, Gravel, Ungraded, Quarry Run	1099	Includes materials, equipment and labor	Cubic yard	\$21.94	78	\$1,711.32
One Species, Cool Season, Native Perennial Grass	2312	Native, cool season perennial grass. Includes material and shipping only.	Acre	\$161.29	0.05	\$8.06
<b>Mobilization</b>						
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