

**Scenario Worksheet**

Practice and Scenario Description:	
Information Type	Data
Region	Mid Atlantic
State	New Jersey
Discipline Group	Agricultural Engineering
Practice Code/Name	600 - Terrace
Scenario ID	1
Scenario Name	Terrace, Gradient

Scenario Description	<p>An earthen embankment with channel constructed across the field slope as part of a system to shorten slope lengths and reduce sheet, rill, and gully erosion in a 30 acre cropped field. The typical installation is a gradient terrace having 5:1 upstream and 5:1 downstream slopes measuring 750 feet in a field with slopes from 2% to 8% constructed in silt loam soils or similar in regards to workability. Channel and berm are farmed. A stable outlet is provided in the form of a Grassed Waterway or Underground Outlet. Costs include all equipment and forces necessary to excavate, shape, and compact terrace. This practice addresses Concentrated Flow Erosion and Excessive Sediment in surface waters.</p> <p>Associated practices are Critical Area Planting (342), Grassed Waterway (412), and Underground Outlet (620).</p>
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Before Practice Situation	Long slope lengths contribute to excessive sedimentation and soil erosion in cropped fields as a result of gully, rill, and sheet erosion. The excessive erosion may lead to deterioration of receiving waters due to excessive sedimentation and nutrient transport.
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After Practice Situation	A system of gradient terraces measuring 750 feet in length, 2.5 height, and 5:1 front and back slopes is installed with spacing designed to intercept flow of water and shorten slope length to reduce erosion to acceptable levels. Work is done with dozer, scraper, or road grader. The installed terrace is typically farmed.
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Scenario Feature Measure	Length of Terrace
Scenario Unit	Feet
Scenario Typical Size	750

Cost Summary:		
Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$0.00	\$0.00
Equipment/Installation	\$1,823.94	\$2.43
Labor	\$767.68	\$1.02
Mobilization	\$285.90	\$0.38
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$2,877.52	\$3.84



**Scenario Worksheet**

Practice and Scenario Description:	
Information Type	Data
Region	Mid Atlantic
State	New Jersey
Discipline Group	Agricultural Engineering
Practice Code/Name	600 - Terrace
Scenario ID	2
Scenario Name	Terrace, Storage

**Scenario Description**

An earthen embankment with channel constructed across the field slope as part of a system to shorten slope lengths, and reduce sheet, rill, and gully erosion in a 30 acre cropped field. The typical installation is a flat channel (level) terrace storing runoff with a length of 750 feet and side slopes of 8:1 or greater in a field with slopes from 2% to 8% constructed in silt loam soils or similar in regards to workability. Costs include all equipment and forces necessary to excavate, shape, and compact terrace. This practice addresses Concentrated Flow Erosion and Excessive Sediment in surface waters.

Associated practices are Critical Area Planting (342), Grassed Waterway (412), and Underground Outlet (620).

**Before Practice Situation**

Long slope lengths contribute to excessive sedimentation and soil erosion in cropped fields as a result of gully, rill, and sheet erosion. The excessive erosion may lead to deterioration of receiving waters due to excessive sedimentation and nutrient transport.

**After Practice Situation**

A system of flat channel (level) terraces with approximately 8:1 front and back slopes, 2.5 feet height, and 2,500 feet in length is installed with spacing designed to intercept flow of water and shorten slope length to reduce erosion to acceptable levels. Work is done with dozer, scraper, or road grader. The installed terrace is typically farmed. Riser and outlet paid separately.

Scenario Feature Measure	Length of Terrace
Scenario Unit	Feet
Scenario Typical Size	750

Cost Summary:		
Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$0.00	\$0.00
Equipment/Installation	\$2,431.92	\$3.24
Labor	\$1,038.24	\$1.38
Mobilization	\$285.90	\$0.38
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
<b>Total</b>	<b>\$3,756.06</b>	<b>\$5.01</b>



**Scenario Worksheet**

Practice and Scenario Description:	
Information Type	Data
Region	Mid Atlantic
State	New Jersey
Discipline Group	Agricultural Engineering
Practice Code/Name	600 - Terrace
Scenario ID	3
Scenario Name	Terrace, Gradient Rebuild

**Scenario Description**

An earthen embankment with channel previously constructed across the field slope as part of a system to shorten slope lengths and reduce sheet, rill and gully erosion in a 30 acre cropped field. It is beyond its practice life and needs reconstructed. The typical installation is a gradient terrace having 5:1 upstream and 5:1 downstream slopes measuring 750 feet in a field with slopes from 2% to 8% constructed in silt loam soils or similar in regards to workability. Channel and berm are farmed. A stable outlet is provided in the form of a Grassed Waterway or Underground Outlet. Costs include all equipment and forces necessary to excavate, shape, and compact terrace. This practice addresses Concentrated Flow Erosion and Excessive Sediment in surface waters.

Associated practices are Critical Area Planting (342), Grassed Waterway (412), and Underground Outlet (620).

**Before Practice Situation**

Long slope lengths contribute to excessive sedimentation and soil erosion in cropped fields as a result of gully, rill, and sheet erosion. The excessive erosion may lead to deterioration of receiving waters due to excessive sedimentation and nutrient transport.

**After Practice Situation**

All or part of an existing system of gradient terraces measuring 750 feet in length, 2.5 height, and 5:1 front and back slopes is re-installed with spacing designed to intercept flow of water and shorten slope length to reduce erosion to acceptable levels. Work is done with dozer, scraper, or road grader. The installed terrace is typically farmed.

Scenario Feature Measure	Length of Terrace	
Scenario Unit	Foot	
Scenario Typical Size	750	

**Cost Summary:**

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$0.00	\$0.00
Equipment/Installation	\$1,215.96	\$1.62
Labor	\$585.12	\$0.78
Mobilization	\$285.90	\$0.38
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
<b>Total</b>	<b>\$2,086.98</b>	<b>\$2.78</b>



**Scenario Worksheet**

Practice and Scenario Description:	
Information Type	Data
Region	Mid Atlantic
State	New Jersey
Discipline Group	Agricultural Engineering
Practice Code/Name	600 - Terrace
Scenario ID	4
Scenario Name	Terrace, Storage Rebuild

**Scenario Description**

An earthen embankment with channel constructed across the field slope as part of a system to shorten slope lengths, and reduce sheet, rill, and gully erosion in a 30 acre cropped field. It is beyond its practice life and needs reconstructed. The typical installation is a flat channel (level) terrace storing runoff with a length of 750 feet and side slopes of 8:1 or greater in a field with slopes from 2% to 8% constructed in silt loam soils or similar in regards to workability. Costs include all equipment and forces necessary to excavate, shape, and compact terrace. This practice addresses Concentrated Flow Erosion and Excessive Sediment in surface waters. The installed terrace is typically farmed. Riser and outlet paid separately.

Associated practices are Critical Area Planting (342), Grassed Waterway (412), and Underground Outlet (620).

**Before Practice Situation**

Long slope lengths contribute to excessive sedimentation and soil erosion in cropped fields as a result of gully, rill, and sheet erosion. The excessive erosion may lead to deterioration of receiving waters due to excessive sedimentation and nutrient transport.

**After Practice Situation**

All or part of a system of flat channel (level) terraces with approximately 8:1 front and back slopes, 2.5 feet height, and 2,500 feet in length are re-installed with spacing designed to intercept flow of water and shorten slope length to reduce erosion to acceptable levels. Work is done with dozer, scraper, or road grader. The installed terrace is typically farmed. Riser and outlet paid separately. Associated practices are Critical Area Planting (342), Grassed Waterway (412), and Underground Outlet (620).

Scenario Feature Measure	Length of terrace
Scenario Unit	Foot
Scenario Typical Size	750

Cost Summary:		
Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$0.00	\$0.00
Equipment/Installation	\$1,823.94	\$2.43
Labor	\$811.68	\$1.08
Mobilization	\$285.90	\$0.38
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
<b>Total</b>	<b>\$2,921.52</b>	<b>\$3.90</b>

