

**Item No. 622S**  
**Diversion Dike**

**622S.1 Description**

This item shall govern furnishing and installing a temporary or permanent ridge of compacted soil that is located immediately above cut or fill slopes. The temporary or permanent ridge shall be constructed with sufficient grade to intercept storm water run-off from small upland areas and to divert the flow from the exposed slopes to an acceptable outlet as indicated on the Drawings or as directed by the Engineer or designated representative.

This specification is applicable for projects or work involving either inch-pound or SI units. Within the text, the inch-pound units are given preference followed by SI units shown within parentheses.

**622S.2 Submittals**

The submittal requirements for this specification item shall include:

- A. Characteristics (LL, PI, maximum density, etc.) of proposed embankment material;
- B. Identification of the type, source, mixture, pure live seed (PLS) and rate of application of the seeding;
- C. Identification of the type, source, and mixture of the sodding;
- D. Type of mulch;
- E. Type of tacking agent;
- F. Type, chemical analysis and rate of application of fertilizer;
- G. Type, characteristics, gradation, etc. of proposed riprap;
- H. Type, characteristics, and application method of proposed soil retention blanket;
- I. Type, characteristics, and application method of proposed soil retention blanket, slope stabilization;
- J. The manufacturer, model and description of the proposed dust control equipment,
- K. The sprinkling plan including application rate, pattern of sprinkling and scheduled times of application.

**622S.3 Materials**

- A. Dikes shall be constructed from suitable embankment material approved by the Engineer or designated representative or from a borrow material meeting the requirements of Standard Specification Item No. 130S, "Borrow", Type A.
- B. Stone Riprap shall consist of fieldstone, rough unhewn quarry stone or broken concrete conforming to Standard Specification Item No. 591S, "Riprap for Slope Protection".
- C. Seeding shall conform to Standard Specification Item No. 604S, "Seeding for Erosion Control".
- D. Sodding shall conform to Standard Specification Item No. 602S, "Sodding for Erosion Control".
- E. Soil Retention Blanket shall conform to Standard Specification Item No. 605S, "Soil Retention Blanket".

- F. Stabilization for Erosion Control shall conform to Standard Specification Item No. 607S, "Stabilization for Erosion Control".
- G. Water for embankment, erosion control and dust control shall conform to Standard Specification Item Nos. 604S, "Seeding for Erosion Control" and 220S, "Sprinkling for Dust Control".

#### **622S.4 Construction Methods**

The Contractor shall minimize the area disturbed by the activity defined by this specification Item and Standard Detail No. 622S-1, "Diversion Dike". Prior to placement of the Diversion Dike, all clearing and grubbing operations (Standard Specification Item No. 102S) shall have been completed on the areas over which the Diversion Dike is to be placed. The surface of the ground, which is to receive the Diversion Dike, shall be loosened by scarifying or plowing to a minimum depth of 4 inches (100 mm), except for the case of solid rock. The material, that has been loosened, shall be re-compacted simultaneously with the Diversion Dike. The Diversion Dike shall be placed in successive 6-inch (150 mm) layers for the full width of the Diversion Dike. Soils shall be sprinkled as required and compacted to the extent necessary to provide not less than 90 percent of the maximum dry density as determined in accordance with TxDoT Test Methods Tex-114-E and Tex 115-E. The top 4 inches (100 mm) shall be compacted to 85 percent of the maximum dry density to facilitate seeding.

Diverted runoff from a protected or stabilized area shall have its outlet flow directed to an undisturbed stabilized area or into a level spreader (Standard Specification Item No. 634S and Standard Detail No. 634S-1) or grade stabilization structure (Standard Specification Item No. 625S and Standard Detail No. 625S-1). Diverted runoff from a disturbed or exposed area sediment basin or to an area protected by any of these practices.

The structure shall be inspected monthly and after every rainfall. Repairs shall be made, as needed in the opinion of the Engineer or designated representative, by the Contractor throughout the duration of this contract or until the Engineer or designated representative gives written permission to remove a temporary structure.

The temporary Diversion Dike shall be removed, when directed by the Engineer or designated representative, and the area shall be leveled off and protected by erosion control measures appropriate for the terrain as indicated on the Drawings. Permanent Diversion Dikes shall be seeded and shall conform to Standard Specification Item No. 604S, "Seeding for Erosion Control".

#### **622S.5 Measurement**

Work performed as prescribed by this item will be measured by the lineal foot (lineal meter: 1 meter equals 3.281 feet) along the centerline of the Diversion Dike.

#### **622S.6 Payment**

This item will be paid for at the contract unit bid price for "Diversion Dike". The price shall include full compensation for: a) all work specified herein, b) furnishing, hauling and placing of all materials and c) all water required to perform all operations necessary to complete the work.

Payment will be made under one of the following:

**Pay Item No. 622S-A:** Diversion Dike, Temporary Per Lineal Foot.  
**Pay Item No. 622S-B:** Diversion Dike, Permanent Per Lineal Foot.

**End**

<b><u>SPECIFIC</u> CROSS REFERENCE MATERIALS</b>
Specification Item 622S "Diversion Dike"

City of Austin Standard Specifications

<u>Designation</u>	<u>Description</u>
Item No. 102S	Clearing and Grubbing
Item No. 130S	Borrow
Item No. 220S	Sprinkling for Dust Control
Item No. 591S	Riprap for Slope Protection
Item No. 602S	Sodding for Erosion Control
Item No. 604S	Seeding for Erosion Control
Item No. 605S	Soil Retention Blanket
Item No. 606S	Fertilizer
Item No. 607S	Stabilization for Erosion Control
Item No. 625S	Grade Stabilization Structure
Item No. 634S	Level Spreader

City of Austin Standard Details

<u>Designation</u>	<u>Description</u>
No. 622S-1	Diversion Dike
No. 625S-1	Grade Stabilization Structure
No. 634S-1	Level Spreader

Texas Department of Transportation: Manual of Testing Procedures

<u>Designation</u>	<u>Description</u>
Tex-114-E	Laboratory Compaction Characteristics and Moisture-Density Relationship of Subgrade & Embankment Soil
Tex-115-E	Field Method for Determination of In-Place Density of Soils and Base Materials

<b><u>RELATED</u> CROSS REFERENCE MATERIALS</b>
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City of Austin Land Development Code

<u>Designation</u>	<u>Description</u>
Chapter 25	Drainage
Section 25-7-61	Criteria for Approval of Plats, Construction Plans, And Site Plans
Section 25-7-61 (A) (4)	"temporary and permanent measures to control erosion."
Section 25-7-65	Fiscal Security
Article 5	Erosion and Sedimentation Control; Overland Flow
Section 25-8-181	Erosion and Sedimentation Control
Section 25-8-182	Development Completion
Section 25-8-183	Modification of Erosion Control and Construction Sequencing Plans
Section 25-8-323	Temporary Storage Areas; Topsoil Protection
Section 25-8-341 (B)	"A cut must be restored and stabilized"
Section 25-8-342 (B)	"A fill must be restored and stabilized"

<b><u>RELATED</u> CROSS REFERENCE MATERIALS (Continued)</b>
Specification Item 622S "Diversion Dike"

City of Austin Environmental Criteria Manual

<u>Designation</u>	<u>Description</u>
Section 1.4.0	Erosion and Sedimentation Control Criteria
Section 1.4.1	Introduction
Section 1.4.1.2	Project Management
Section 1.4.3	Permanent Structural Practices
Section 1.4.3.A	Diversion

City of Austin Standard Specifications

<u>Designation</u>	<u>Description</u>
Item No. 101S	Preparing Right of Way
Item No. 102S	Clearing and Grubbing
Item No. 111S	Excavation
Item No. 132S	Embankment
Item No. 201S	Subgrade Preparation
Item No. 601S	Salvaging and Placing Topsoil
Item No. 605S	Soil Retention Blanket
Item No. 607S	Slope Stabilization
Item No. 621S	Diversion (Temporary)

City of Austin Standards (Details)

<u>Standard No.</u>	<u>Description</u>
No. 627S-1	Grass Lined Swale
No. 627S-2	Grass Lined Swale W/ Stone Center
No. 633S-1	Landgrading

Texas Department of Transportation: Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges

<u>Designation</u>	<u>Description</u>
Item No. 100	Preparing Right of Way
Item No. 110	Excavation
Item No. 160	Furnishing and Placing Topsoil
Item No. 164	Seeding for Erosion Control
Item No. 166	Fertilizer
Item No. 168	Vegetative Watering
Item No. 169	Soil Retention Blanket