

**Item No. 637S  
Pipe Slope Drain**

**637S.1 Description**

This item governs the installation of a flexible tubing and/or rigid pipe with a prefabricated entrance section that is temporarily placed to extend from the top to the bottom of a slope. The removal of the pipe slope drain structure is also included in this item. The purpose of the pipe slope drain is to convey surface runoff safely down slopes without causing erosion.

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.

**637S.2 Submittals**

The submittal requirements for this specification item shall include:

- A. The Dry Riprap submittal shall include:
  - 1. Type, size and source of rock,
  - 2. Filter fabric, and
  - 3. Construction details.
  
- B. The pipe and inlet pipe submittal shall include:
  - 1. Size, properties, banding, etc for the Corrugated Metal Pipe.
  - 2. Size, properties, and installation details and instructions.

**637S.3 Materials**

A. Pipe and Inlet Pipe

The pipe and inlet pipe shall be corrugated metal pipe (Standard Specification Item 510, "Pipe") with watertight connecting bands of the size indicated on the Drawings.

B. Flexible Tubing

The flexible tubing shall be the same diameter as the inlet pipe and shall be constructed of a durable material with hold-down grommets spaced 10 feet (3 meters) on centers.

C. Riprap

Riprap area shall consist of 6 inch (150 mm) stone and shall meet the requirements for Dry Riprap (Section 591S.5) of Standard Specification Item No. 591S, "Riprap for Slope Protection" .

#### **637S.4 Construction Methods - Flexible**

All trees, brush, stumps, obstructions and other objectionable material shall be removed and disposed in a manner that will not interfere with the excavation and construction of the drain as indicated on the Drawings. The drain shall not drain onto the public right of way.

The top of the earth dike over the inlet pipe and those dikes carrying water to the pipe shall be at least 1 foot higher at all points than the top of the inlet pipe.

The pipe slope drain shall be of the type indicated on the Drawings and constructed to the details indicated on the Drawings and/or Standard Detail Numbers 637S-1, "Pipe Slope Drain (FLEXIBLE)" and 637S-2, "Pipe Slope Drain (RIGID)".

The flexible tubing shall be securely fastened to the corrugated metal pipe with metal strapping or watertight connecting collars. The flexible tubing shall be securely anchored to the slope by staking at the grommets provided.

A riprap apron shall be provided at the outlet, as indicated on the Drawings and/or Standard Details.

The structure shall be inspected monthly and after each rainfall. Sediment buildup shall be removed and repairs shall be made by the Contractor, as needed, throughout the duration of this contract or until the Engineer or designated representative provides written permission to remove the structure.

#### **637S.5 Measurement**

Acceptable work performed as prescribed by this item will be measured per each.

#### **637S.6 Payment**

The work performed and materials furnished and measured as provided under "Measurement" will be paid for at the unit bid price per lineal foot of "Pipe Slope Drain". The price shall include full compensation for furnishing, hauling and placing all materials, labor, tools, equipment and incidentals necessary to complete the work including inspecting, repairing, replacing and relocating existing fencing, removal of silt and removal and disposal of all materials at the completion of construction.

Payment will be made under:

<b>Pay Item No. 637S:</b> Pipe Slope Drain	Per Each.
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**End**

<b><i>SPECIFIC</i></b> CROSS REFERENCE MATERIALS
Specification 637S, "Pipe Slope Drain"

City of Austin Standard Details

<u>Designation</u>	<u>Description</u>
Number 637S-1	Pipe Slope Drain (Flexible)
Number 637S-2	Pipe Slope Drain (Rigid)

City of Austin Standard Specifications

<u>Designation</u>	<u>Description</u>
Item No. 591S,	Riprap for Slope Protection
Item No. 510	Pipe
Item No. 604S	Seeding for Erosion Control

<b><i>Related</i></b> CROSS REFERENCE MATERIALS
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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. 120S	Channel Excavation
Item No. 401	Structural Excavation and Backfill
Item No. 602S	Sodding for Erosion Control
Item No. 605S	Soil Retention Blanket
Item No. 606S	Fertilizer
Item No. 608S	Planting
Item No. 610S	Preservation of Trees and Other Vegetation
Item No. 620S	Filter Fabric

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. 132	Embankment
Item No. 158	Specialized Excavation Work
Item No. 166	Fertilizer
Item No. 168	Vegetative Watering
Item No. 169	Soil Retention Blanket
Item No. 204	Sprinkling