

**Item No. 120S
Channel Excavation**

120S.1 Description

This item shall govern (1) excavation of channels within the limits indicated, regardless of the type of material encountered, (2) removal and proper utilization or otherwise satisfactory disposal of all excavated materials and (3) construction, shaping and finishing of all earthwork involved in conformity with the required line, grades and cross sections indicated.

When not otherwise indicated, this item shall include the work described in Specification Item Nos. 101S, "Preparing Right of Way", No. 102S, "Clearing and Grubbing", No. 104S, "Removing Portland Cement Concrete" No. 132S, "Embankment" and No. 236S, "Proof Rolling".

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

120S.2 Submittals

The submittal requirements of this specification item may include:

- A. A plan for removal and deposition of all 'Waste' materials, and
- B. A Blasting Permit if blasting is required and allowed on the project.

120S.3 Classification

All channel excavation will be unclassified and shall include all materials encountered regardless of their nature or the manner in which they are removed.

120S.4 Construction Methods

Prior to commencing this work, all required erosion control and tree protection measures shall be in place and all existing utilities located and protected as specified in the Standard Contract Document Section 00700, "General Conditions" and/or indicated on the Drawings. Construction equipment shall not be operated within the drip line of trees, unless otherwise indicated. Construction materials shall not be placed under the canopies of trees. Excavation or embankment materials shall not be placed within the drip line of trees until tree wells are constructed that conform to Specification Item No. 610S, "Preservation of Trees and Other Vegetation".

All channel excavation shall be performed as specified herein and shall conform to the established alignment, grades and cross sections. When fill sections are required, Specification Item No. 132S, "Embankments" shall govern the construction method. Suitable excavated materials shall be utilized, insofar as practicable, in constructing the required embankments. Precautions will be maintained at all times to protect all trees in the area of construction. Where removal of trees is necessary, they shall be marked as directed by the Engineer or designated representative.

Unsuitable excavated materials or excavation in excess of that needed for construction shall be known as "Waste" and shall become the property of the Contractor. It shall

become the Contractor's sole responsibility to dispose of this material off the limits of the right of way in an environmentally sound manner at a permitted disposal site.

All blasting shall conform to the Standard Contract Document Section 01550, "Public Safety and Convenience". In all cases, a Blasting Permit must be obtained in advance from the City of Austin Department of Public Works and Transportation.

120S.5 Measurement

Accepted channel excavation will be measured by either Method A or B as follows:

A. Method A

Measurement of the volume of excavation in cubic yard (cubic meters: 1 cubic meter is equal to 1.308 cubic yards) by the average end areas. Cross-sectional areas shall be computed from the existing ground surface to the established final section indicated.

B. Method B

Measurement of the volume of excavation in cubic yards (cubic meters: 1 cubic meter is equal to 1.308 cubic yards), based upon average end areas taken from preconstruction cross sections and planned grades. The plan quantities for channel excavation will be used as the measurement for payment for this item.

120S.6 Payment

This item will be paid for at the contract unit bid price for "Channel Excavation", as provided under measurement Method A, or B and included in the bid. The bid price shall include full compensation for furnishing all materials, equipment, tools, labor and incidentals necessary to complete the work.

Payment will be made under one of the following:

Pay Item No. 120S-A: Channel Excavation	Per Cubic Yard.
Pay Item No. 120S-B: Channel Excavation, Plan Quantity	Per Cubic Yard.

End

<u>SPECIFIC</u> CROSS REFERENCE MATERIALS
Specification 120S, "CHANNEL EXCAVATION"

City of Austin Standard Contract Documents

<u>Designation</u>	<u>Description</u>
00700	General Conditions
01500	Temporary Facilities
1550	Public Safety and Convenience

<u>SPECIFIC</u> CROSS REFERENCE MATERIALS - Continued
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Specification 120S, "CHANNEL EXCAVATION"

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. 104S	Removing Portland Cement Concrete
Item No. 132S	Embankment
Item No. 201S	Subgrade Preparation
Item No. 236S	Rolling (Proof)
Item No. 610S	Preservation of Trees and Other Vegetation

RELATED CROSS REFERENCE MATERIALS

City of Austin Standard Contract Documents

<u>Designation</u>	<u>Description</u>
01500	Temporary Facilities

City of Austin Standard Specifications

<u>Designation</u>	<u>Description</u>
Item No. 111S	Excavation
Item No. 203S	Lime Treatment for Materials In Place
Item No. 204S	Portland Cement Treatment for Materials In Place
Item No. 230S	Rolling (Flat Wheel)
Item No. 232S	Rolling (Pneumatic Tire)
Item No. 234S	Rolling (Tamping)
Item No. 602S	Sodding for Erosion Control
Item No. 604S	Seeding for Erosion Control
Item No. 622S	Diversion Dike
Item No. 628S	Sediment Containment Dikes
Item No. 642S	Silt Fence

City of Austin Standard Details

<u>Designation</u>	<u>Description</u>
No. 610S-1	Tree Protection Fence Locations
No. 610S-2	Tree Protection Fence, Type B Chainlink
No. 610S-3	Tree Protection Fence, Type B Wood
No. 610S-4	Tree Protection Fence, Modified Type A
No. 610S-5	Tree Protection Fence, Modified Type B
No. 610S-6	Tree Protection, Tree Wells
No. 621S-1	Diversion
No. 622S-1	Diversion Dike
No. 624S-1	Earth Outlet Sediment Trap
No. 625S-1	Grade Stabilization Structure
No. 627S-1	Grass Lined Swale
No. 627S-2	Grass Lined Swale With Stone Center
No. 628S	Triangular Sediment Filter Dike
No. 628S-1	Hay Bale Dike
No. 629S-1	Brush Berm
No. 630S-1	Interceptor Dike
No. 631S-1	Interceptor Swale
No. 632S-1	Storm Inlet Sediment Trap
No. 633S-1	Landgrading
No. 634S-1	Level Spreader
No. 635S-1	Perimeter Dike
No. 636S-1	Perimeter Swale
No. 637S-1	Pipe Slope Drain (Flexible)
No. 637S-2	Pipe Slope Drain (Rigid)

<u>RELATED</u> CROSS REFERENCE MATERIALS - Continued
Specification 120S, "CHANNEL EXCAVATION"

City of Austin Standard Details

<u>Designation</u>	<u>Description</u>
No. 638S-1	Pipe Outlet Sediment Trap
No. 639S-1	Rock Berm
No. 641S-1	Stabilized Construction Entrance
No. 642S-1	Silt Fence
No. 643S-1	Stone Outlet Structure
No. 644S-1	Stone Outlet Sediment Trap

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. 160	Furnishing and Placing Topsoil
Item No. 164	Seeding for Erosion Control
Item No. 204	Sprinkling
Item No. 210	Rolling (Flat Wheel)
Item No. 211	Rolling (Tamping)
Item No. 213	Rolling (Pneumatic Tire)

Texas Department of Transportation: Manual of Testing Procedures

<u>Designation</u>	<u>Description</u>
Tex-103-E	Determination of Moisture Content of Soil Materials
Tex-104-E	Determination of Liquid Limit of Soils
Tex-105-E	Determination of Plastic Limit of Soils
Tex-106-E	Method of Calculating the Plasticity Index of Soils
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