

577 REWORKING SHOULDERS, SLOPES AND ROADSIDE DITCHES.
(REV 7-12-17) (1-18)

The following is a new Section added after Section 571:

SECTION 577
REWORKING SHOULDERS, SLOPES AND ROADSIDE DITCHES

577-1 Description.

Perform shoulder preparation (restoring non-paved shoulders, slopes and roadside ditches), by adding suitable materials, removing excess materials, and restoring the roadside to the desired typical section for proper drainage, protection of pavement edge, and to provide a safe recovery area.

577-2 Equipment.

Provide equipment that may include pulver mixer and rotovators with shovel-like cultivators, of a type that will mix the additional shoulder material with the existing turf to the required depth and which will leave the shoulder in a non-compacted condition.

577-3 Construction Methods.

577-3.1 General: Coordinate with the utility companies for the location of all underground utilities prior to beginning work where digging or grading work is required.

577-3.2 Sequence of Construction: Proceed with the several operations involved in the work in the following sequence: blade shoulders if necessary, add and spread borrow material, and mix borrow material with the underlying turf. Leave in a roughened and loose condition.

577-3.3 Preparation of Shoulder to be Reworked: Blade the existing shoulder as necessary to achieve a reasonable uniform plane. Blade turf which has grown over the edge of existing pavement from the pavement's edge for a width of not more than 18 inches from the pavement's edge. Disc the existing shoulders prior to placing additional material.

Use existing materials (high spots) within the project limits if suitable for use as fill material for low areas prior to using borrow materials. Stockpile excess materials resulting from the reworking procedure in areas designated by the Engineer.

Provide and maintain all measures required for the prevention, control, and abatement of dust, erosion, and water pollution. Prevention, control, and abatement of dust, erosion, and water pollution will be incidental to the work being performed and will not be paid separately, unless specific pay items and quantities are established in this Contract. Use erosion control methods and materials per Section 104 and Design Standard Index 104.

577-3.4 Additional Material: Add and spread, borrow material to conform to the desired shoulder configuration. Do not place this added material on the shoulders earlier than seven calendar days before beginning mixing operations in that area. Placement of material to be added must not inhibit visibility to the traveling public and may be placed on the back slope along the Right of Way line or as directed by the Engineer.

Borrow material required to bring turf shoulders to proper grade may be available from stockpiled areas as specified in 577-3.3.

The Department **(will, will not)** provide fill material, when needed to bring turf shoulders to proper grade.

Use in Maintenance Projects for Reworking Shoulders, Slopes and Roadside Ditches

577-3.5 Mixing: Mix the additional shoulder material with the existing turf with a pulver mixer or rotovator mixer to a depth such that the upper 4 inches of the existing turf becomes uniformly mixed with the added material.

In those areas where the added borrow material exceeds four inches in depth, mixing of borrow material and turf is not required.

Immediately after the above operations, reshape the shoulder area to the required configuration and leave in a roughened and loose condition.

Completed work will be to the line, grades, and slopes according to the particular roadway typical requirements for shoulders, slopes, and ditches. The typical sections will be as follows:

Drop Off from Edge of Pavement to Shoulder	1/2" to 1" maximum
Shoulders	3/4 " per foot
Front Slopes	1:4 to 1:6 (vertical to horizontal)
Ditch Bottom	Grade for proper drainage
Back Slope	1:2 to 1:4 (vertical to horizontal)

577-3.6 Paved Shoulder Blading and Removal of Excess Material: Blade turf that has grown over the edge of existing pavement and from the pavement's edge for the width specified in the Contract Documents, Work Document, or by the Engineer, not to exceed 24 inches. Blade the unpaved shoulder as necessary to achieve a uniform plane in relation to the paved shoulder and cross slope. Remove excess material that cannot be utilized elsewhere in locations specified in the Contract Documents or Work Document.

577-4 Method of Measurement.

The quantities to be paid for will be for the following items, completed and accepted.

1. The area, in square yards, for reworking shoulders.
2. The area, in linear feet, for paved shoulder blading and removal of excess material.

577-5 Basis of Payment.

Price and payment for reworking shoulders will be full compensation for all of work and materials specified in this Section, including any necessary blading to complete the work.

Price and payment for blading paved shoulders will be full compensation for all work specified in this Section.

Price and payment will be full compensation for all hauling; any re-handling that may be necessary to accomplish the dressing of the shoulders, ditches, slopes, and final disposal of excess material.

Payment will be made under the items specified in the Bid Price Proposal.