

**577 REWORKING SHOULDERS, SLOPES AND ROADSIDE DITCHES.**  
**(REV 3-30-20) (FY 2023-24)**

The following is a new Section added after Section 571:

**SECTION 577**  
**REWORKING SHOULDERS, SLOPES AND ROADSIDE DITCHES**

**577-1 Description.**

Perform shoulder rework operations for restoring non-paved shoulders, slopes and roadside ditches. Shoulder rework operations include blading to remove excess materials, adding suitable materials, if necessary and restoring the roadside shoulders to the desired lines, grades, and cross-sections for proper drainage and protection of the pavement edge.

**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 non-paved shoulder to the required depth and which will leave the shoulder in a non-compacted condition.

**577-3 Materials.**

**577-3.1 Use of Excess Material:** Use existing excess material within the project limits if suitable for use as fill material in low areas, prior to using Department provided fill material or imported finish soil material. Stockpile excess materials resulting from the reworking procedure in areas designated by the Engineer.

**577-3.2 Fill Material:** The Department (will, will not) provide fill material, when needed to bring non-paved shoulders to proper grade.

**577-3.3 Finish Soil Layer:** When suitable fill material is not provided by the Department, as authorized by the Engineer, meet the requirements of Section 987.

Do not place stockpiled fill or soil layer materials on the shoulders earlier than seven Calendar days before mixing operations in the area. Placement of materials 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.

**577-4 Shoulder Rework Operations.**

**577-4.1 General:** Coordinate with the utility companies for the location of all underground utilities prior to beginning work where digging or grading work is required.

**577-4.2 Sequence of Operations:** Proceed with the shoulder rework operations in the following sequence: blade shoulders if necessary, add and spread stockpiled excess soil, fill, or imported soil layer material, and mix added material with the underlying non-paved shoulder. Leave in a roughened and loose condition.

**577-4.3 Preparation:** Blade the existing shoulder as necessary to achieve a reasonable uniform plane. Blade vegetation which has grown over the edge of existing pavement. Disc the existing shoulders prior to placing additional material. Remove excess material that is not suitable for use as fill material in low areas within the project limits.

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 the Standard Plans Index 570.

**577-4.4 Soil Layer Material:** Prepare a 6 inch-thick layer of soil using stockpiled fill and imported material as authorized by the Engineer, to achieve a finish soil layer favorable to ground cover growth for areas to be seeded, mulched or sodded. Spread the material to conform to the desired shoulder configuration.

**577-4.5 Mixing:** Mix the additional shoulder material with the existing non-paved shoulder with a pulver mixer or rotovator mixer to a depth such that the upper four inches of the existing shoulder becomes uniformly mixed with the added material.

In those areas where the added fill material exceeds four inches in depth, mixing of fill material and the existing shoulder 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 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)

**577-5 Paved Shoulder Blading Operations.**

Blade vegetation that has grown over the edge of existing pavement and remove excess material from the pavement's edge for the width specified by the Engineer. Blade the unpaved shoulder as necessary, not to exceed 24 inches from the edge of pavement, to achieve a uniform plane in relation to the paved shoulder and cross slope.

**577-6 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.
3. The number of in cubic yards of soil layer material placed.

**577-7 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.

Item No. E577- 70 Shoulder Rework - per square yard.

Item No. E577- 70- 1 Reworking Shoulders (Spot Repairs) - per square yard.

Item No. E577- 70- 2 Reworking Utility Strips - per square yard.  
Item No. E577- 71 Blading Paved Shoulder - per linear foot.  
Item No. E575- 2 Soil Layer Material - Imported Material - per cubic yard.