



SECTION 213

SHAPING SHOULDERS

213.1 Description. This work shall consist of grading and shaping existing shoulders to conform to the typical sections shown in the contract.

213.1.1 Shaping Shoulders, Class 1, is defined as shaping shoulders where, in general, the material required to bring the roadway to the designated cross section can be obtained or disposed of within the right of way limits as directed by the engineer.

213.1.2 Shaping Shoulders, Class 2, is defined as shaping shoulders where it may be necessary to go outside the limits of the right of way for additional material to construct the shoulders to the designated cross section or where it may be necessary to dispose of waste material outside the limits of the right of way.

213.2 Construction Requirements.

213.2.1 Shoulders shall be constructed of suitable material to the cross section shown on the typical section. Ditches shall be provided in cut sections as indicated on the plans. Such additional ditch work as is necessary to ensure proper drainage shall also be performed. Vegetation on existing shoulders and slopes shall be mowed or cut in areas of grading work, and such cuttings shall be disposed of prior to the placing of any shoulder material. Shoulder material shall be compacted by a roller weighing (having a mass of) not less than 5 tons (4.5 Mg). Finishing of shoulders and slopes, and ditches where necessary, shall be to a reasonably smooth and uniform surface. Only that work will be required on backslopes as is necessary to blend the lower portion of the existing backslopes with any regraded ditch. Finishing by hand methods will not be required.

213.2.2 If additional material is required for shaping shoulders to the minimum width, it shall be obtained from the backslopes as directed by the engineer, or from borrow areas outside the limits of the right of way in areas provided by and at the contractor's expense. If excess excavation results, it shall be disposed of by uniformly widening shoulders on embankment sections, or wasted outside the limits of the right of way in areas provided by and at the contractor's expense. The contractor shall provide the engineer with an acceptable written agreement with any property owner from whose property additional material is to be obtained or on which excess excavation is to be disposed.

213.2.3 A temporary shoulder having a minimum width of 2 feet (600 mm) shall be constructed on the high side of superelevated curves immediately upon completion of the leveling course and base widening of the curve. The contractor shall also roughly shape the shoulders and provide for surface drainage when work is to be discontinued for an extended period.

213.2.4 Shaping shoulders shall also include adjusting grades on existing entrances and approaches as necessary to meet shoulder grades. Such adjustments shall extend to the right of way line, if necessary to provide a satisfactory approach grade.

213.2.5 Shaping shoulders shall start when enough of the final surfacing course has been placed and cured that the operation of shaping shoulders can be practicably continuous. In no case shall the work of shaping shoulders be delayed after one mile (1.5 km) of surfacing has been completed and has cured sufficiently to support equipment for shaping shoulders without damage to the surface.

213.3 Method of Measurement. Measurement will be made to the nearest 0.01 mile (15 m) along the centerline of the pavement. Measurement will include shaping shoulders on both sides of the centerline regardless of roadbed width.

213.3.1 Shaping Shoulders, Class 1 or Class 2, will apply only to those sections that have been specifically designated as such on the plans and the class will not be subject to change during construction.

213.3.2 Final measurement will not be made except where appreciable errors are found in the contract quantity. The correction will be added to or deducted from the contract quantity.

213.4 Basis of Payment. No direct payment will be made for any additional material required for completion of the shoulders.

213.4.1 The contractor will not be required to excavate any classified rock excavation under this item.

213.4.2 The accepted quantity of shaping shoulders will be paid for at the unit price for each of the pay items included in the contract.