

include all water, labor, tools and equipment required to furnish and measure the water applied to surfaces designated by the Engineer and at the times specified.

440.82 Payment Items.

440.	Calcium Chloride for Roadway Dust Control	Kilogram
441.	Bitumen for Roadway Dust Control	Liter
443.	Water for Roadway Dust Control	1000 Liters
154.1	Sand Borrow (Cover)	Cubic Meter

SECTION 445

SHOULDERS

DESCRIPTION

445.20 General.

Shoulders shall be constructed of approved materials in accordance with these specifications and in conformity with the lines, grades and typical cross sections shown on the plans.

Shoulders shall be composed of excavated material or borrow of the kind required or as shown on the plan.

Where shown on the plans, the top portions of shoulders shall be paved with surfacing material of the kind specified.

MATERIALS

445.40 General.

Materials shall meet the requirements specified in the following Subsections of Division III, Materials:

Ordinary Borrow	M1.01.0
Gravel Borrow	M1.03.0, Type c
Loam Borrow	M1.05.0
Sodding (Field)	M6.05.0
Seed	M6.03.0

445.41 Surfacing Materials.

The surfacing materials for paving the top portion of shoulders shall conform to the requirements of the particular sections of these specifications relating to the kind of pavement or surfacing required.

CONSTRUCTION METHODS

445.60 General.

The subgrade for shoulders, if required, shall be prepared as required in Section 170 (Subgrade).

Portions of the shoulders, of sufficient width to hold the pavement in its proper place, shall be built in conjunction with the pavement and shall be rolled to a width of at least 300 millimeters with each rolling of the roadway base course or surface course.

Whenever the plan shows that sodding, loaming, paving or other similar work affecting shoulder construction adjacent to the roadway pavement is required, the Contractor will be required to construct temporary shoulders of suitable

material to support the roadway pavement adequately during rolling operations. After the pavement is constructed, the temporary shoulders shall be carefully removed and satisfactorily disposed of by the Contractor prior to construction of the permanent shoulders.

Where necessary, temporary shoulders shall be constructed in conjunction with the construction of paved shoulders in the same manner as prescribed above for roadway pavement.

When shoulders are to be loamed and seeded, the construction method shall be as specified in Section 765 for such work.

Sodding of shoulders shall be done in conformity with the requirements of Section 770 for Field Sodding.

Ordinary borrow, gravel borrow and loam shall be furnished, placed and rolled in accordance with the requirements of Section 150 and as specified herein.

Paving of shoulders shall be done in the manner specified in the particular section of these specifications relating to the kind of pavement or surfacing to be used in this work.

At all times construction shall be so carried on that effective and adequate drainage will be provided.

The full widths of all shoulders except paved or sodded areas shall be reformed, trimmed, raked and rolled before the final completion of the work and the surface when finished shall conform to the proposed grade and cross section.

COMPENSATION

445.80 Method of Measurement.

All borrow materials for shoulders will be measured by the cubic meter in accordance with the provision of Subsection 150.80.

Surfacing materials for paving shoulders will be measured as specified in the particular section for the kind of pavement required.

Sodding will be measured by the square meter as specified in Subsection 770.80.

445.81 Basis of Payment.

Payment for grading of shoulders composed of material obtained from excavation will be included in the price paid for removal and disposal of the type of excavation used.

When composed of borrow, shoulders will be paid for at the contract unit price per cubic meter of borrow, of the kind required as specified in Subsection 150.81.

Compensation for the removal and disposal of temporary shoulder material will be included in the contract unit price under the item for the kind of material used in the roadway pavement or permanent shoulder.

When shoulders are paved with surfacing materials, such materials will be paid for at the contract unit prices for the kinds of materials used in the pavement as specified in the particular section relating to the kind of pavement or surface ordered.

When sodding is used on shoulders, it will be paid for at the contract unit price per square meter under Item for Field Sodding, complete in place, as specified in Subsection 770.81.

The fine-grading and rolling of the subgrade upon which shoulders are constructed will be paid for at the contract unit price per square meter under Item 170 - Fine Grading and Compacting (In Subgrade Areas).

SECTION 460

CLASS I BITUMINOUS CONCRETE PAVEMENT, TYPE I-1

DESCRIPTION

460.20 General.