

SECTION 803 -- SEEDING

803.01 -- Description

1. This work shall consist of furnishing and placing the seed, fertilizer, and mulch in accordance with these *Specifications* at locations shown in the plans.
2. Type "B" seeding work shall be done in the median areas and for a width of approximately 3.65 m adjacent to the edge of the pavement or surfaced shoulder of the roadways and ramps. Type "A" seeding work shall be performed on all other areas within the limits of the project, except areas designated as Type "C".

803.02 -- Material Requirements

1. Seeding methods, rates of application, and seed mixtures shall comply with the special provisions and the plans.
2. No seed shall be mixed until the Engineer provides the Contractor a seed order list. The Engineer will determine the total seed requirement, usually near the end of the construction period. Where practicable, a single seed order will be provided (usually on projects under 12 ha).
3.
 - a. The Contractor shall obtain from the seed dealer and furnish to the Department a laboratory analysis of each type and lot of seed proposed for use. The analysis shall provide complete information on the seed as required by State and Federal laws. The Department may approve use of the seed if the information on the analysis is satisfactory.
 - b. If the seed is approved by the Department, the seed shall be mixed, bagged, and tagged at the seed company after the Department gives the seed company authorization for a project.
4.
 - a. The Department will furnish tags to be attached by the supplier to each bag of seed.
 - b. The Contractor is not allowed to attach the tags to the bags.
5. Fertilizer type and quantity shall be specified in the special provisions and shall comply with the applicable requirements of Section 804.
6. Mulch shall be as prescribed in Section 805.

803.03 -- Construction Methods

1. Planting Season:
 - a. Seeding operations shall be performed only during the periods March 1 to June 30 and August 1 to December 31.

b. No work shall be performed when the ground is frozen, wet or otherwise untillable, or when even distribution of materials cannot be obtained.

2. If the seeding and grading work are being performed under separate contracts, any necessary repair to the slopes, borrow areas, or ditches will be performed by State forces or by the Contractor on an extra work basis.

3. a. The Contractor shall prepare the seed bed not more than 5 days before sowing the seed by loosening the soil to a depth of not less than 75 mm with a disc, harrow, rake, or by other approved means. Several passes may be required, depending on soil conditions, to provide a satisfactory seedbed. Discing, harrowing, and raking shall be done parallel to the land contour.

b. Hand work shall be required around signs, delineators, guardrail, or other "highway appurtenances" as part of seed bed preparation.

4. a. The Contractor shall till existing weed stubble, small weeds, and other vegetation into the soil during seedbed preparation.

b. (1) The Contractor shall rotary mow to remove heavy weed growth that cannot be disced under.

(2) If seeding and grading are performed under separate contracts, then rotary mowing will be done by State forces or by the Contractor on an extra work basis before the time for seeding operations to begin.

c. The Contractor shall rake and remove the mowing residue as extra work if it cannot be satisfactorily tilled into the seedbed.

d. Extreme care shall be exercised to avoid injury to trees and shrubs that have been designated by the Engineer to be preserved.

e. The Engineer may direct that areas of desirable vegetation be preserved.

5. The Contractor shall fertilize the area and then apply seed as prescribed in Section 804.

6. a. Native grass drills equipped with press wheels or drag chains, Brillion type seeders, or hydraulic seeders may be used to plant the seeds. The special provisions will indicate which equipment shall be used on the project.

b. When hydraulic seeders are used, the seeded area shall be harrowed except on slopes that are jointly (Contractor and Engineer) agreed to be too steep or too irregular to safely operate equipment.

c. (1) Hydraulic seeding equipment shall include a pump rated and operated at 400 L/min and at a pressure of 690 kPa.

(2) The equipment shall have a suitable pressure gauge and a nozzle adapted for hydraulic seeding.

(3) Storage tanks of irregular shapes shall have a means of estimating the volume used or remaining in the tank.

d. When using a hydraulic seeder, the fertilizer and mulch shall be applied separately from the seed.

7. The Contractor shall apply mulch as prescribed in Section 805.

803.04 -- Method of Measurement

1. The work of seeding will be measured by the hectare. The area will be given to the Contractor either before the work begins or during construction. The total area given the Contractor is the final measurement on which payment is based.

2. The surface measurement will not exclude areas of intersection or driveway surfacing. The Engineer may elect not to exclude isolated areas of approximately 1000 m² or less upon which erosion control blankets or netting have been or will be placed.

3. Mulch shall be measured as prescribed in Subsection 805.04.

803.05 -- Basis of Payment

<u>Pay Item</u>	<u>Pay Unit</u>
Seeding, Type _____	Hectare (ha)

2. Mowing, raking, and removing heavy weed growth that is approved by the Engineer shall be paid on an extra work basis.

3. When all or part of the specified seed mixture is unavailable, the Engineer may direct that a substitute seed mixture is used. If an approved substitute seed mixture is furnished at no increase or decrease in cost, it may be used without amending the contract.

4. Mulch is paid for as prescribed in Subsection 805.05.

5. Payment is full compensation for all work prescribed in this Section.