

SECTION 618 - GRASSED SURFACES

618.01 Description. This work includes preparing the areas designated in the contract and planting with grass according to the contract. *

618.02 Materials. The grass that the Contractor will place shall be Bermuda (Cynodon dactylon) except giant varieties. The Contractor shall get the grass by digging up luxuriant growths from areas that are free of seeds, roots, plants, and other types of grasses. The Engineer will not accept the grass unless the Contractor plants and waters the grass within twenty-four (24) hours after digging the grass out from its original growing position. *

Other materials shall conform to the following:

Planting Soil	712.17
Commercial Fertilizer	712.18(A)
Mulch and Soil Amendments	712.45

618.03 Construction Requirements.

(A) Ground Preparation. Before planting, the Contractor shall clear the areas that the Contractor will grass: *

- (1) of unwanted plants (including their root system), *
- (2) stones over three (3) inches in diameter, *
- (3) papers, *
- (4) trash and *
- (5) debris. *

The Contractor shall grade the planting areas to the dimension and elevations shown in the contract or as ordered. *

If the existing soil in the areas that the Contractor will grass is suitable for use as planting soil, the Contractor shall scarify the soil to a depth of not less than six (6) inches from the finished surface shown in the contract. The Contractor shall work the soil until the soil is of a uniform and loose texture, free from stones greater than a half (1/2) inch in diameter and appropriate for planting. If the Contractor requires additional material, the Contractor shall then spread and grade the planting soil to conform to finish surface shown in the contract. *

The Contractor shall excavate the areas unsuitable for planting to a depth of not less than six (6) inches from the finished surface and backfill with planting soil. The Contractor shall the spread and grade the planting soil to conform to the finish grade shown in the contract. *

The Contractor shall be responsible for the disposal of excavated material. *

The Contractor shall add a soil conditioner to surfaces that the Contractor will grass. The Contractor shall rototill a two (2) inch thick layer of soil amendment into the soil to a depth of not less than six (6) inches until: *

(1) the soil is loose and fine textured and *

(2) free from stones greater than half (1/2) inch in diameter. *

(B) Planting. Planting shall be by sprigging, matting, seeding, mulch seeding or other methods at the option of the Contractor. If planting is by sprigging or matting, the Contractor shall roll the surface with a suitable lawn roller after the Contractor completes the planting. *

The Contractor shall apply the water within the same day of planting in such quantities to moisten the soil to the depth of the planter grass. The Contractor shall make additional application so that the Contractor keeps the plated areas continually damp to the grass depth and until the commencement of plant establishment work. *

The Contractor shall apply the fertilizer at not less than the rate of three hundred (300) pounds per acre. The Contractor shall apply the fertilizer twenty-three (23) to thirty (30) days after the Contractor plants the grass. *

A planting period shall begin immediately after the Contractor plants the areas. During the planting period the Contractor shall provide ninety-five (95) percent coverage with five (5) inch tall, healthy grass within ninety (90) days. If the Contractor attains satisfactory coverage before ninety (90) days, the Contractor may submit a written request to the Engineer asking for an earlier end to the planting period. During this period, the Contractor shall be responsible for the grassed areas. This shall include watering, fertilizing, removal and disposal of trash and debris, insects and disease control and protection. *

The Engineer will extend the planting period at no cost to the State if the grass planting does not conform to the contract. |

After the Contractor has planted along a quarter (1/4) mile section of road or smaller areas satisfactorily according to the contract, the planted area upon written notice from the Engineer shall be cared for as specified under Subsection 618.03(C) - Plant Establishment. |

The Contractor shall complete the planting by the end of the contract time. *

(C) **Plant Establishment.** Only State projects require a plant establishment period. A plant establishment period is when the Contractor takes care of the planted area for nine (9) acceptable months from the accepted completion date of the planting period.

During the plant establishment period, the Contractor shall water, fertilize, weed, replace unsuitable grass and mow the grassed areas. The Contractor shall mow the grass whenever the averaged height of the grass becomes three (3) inches.

The Engineer will credit the Contractor plant establishment days when the Contractor does the planted area according to the contract even if the Contractor do not work daily.

The Engineer will not credit the Contractor plant establishment days when the Contractor fails to adequately do plant establishment work according to the contract.

Weeding is when the Contractor removes undesirable plants and their root systems except nut grass.

The Contractor shall remove and dispose of surplus earth, papers, trash and debris that accumulates in the planted areas. The Contractor shall care for the planted areas so to present a neat and clean condition.

Watering equipment shall be of a type that will not cause damage to the planted area or its surroundings. The Contractor shall correct the water systems that cause erosion or runoff and deemed unacceptable by the Engineer. If the planted area or its surroundings are eroding due to the watering method, the Contractor shall immediately remove the runoff material and restore the area to the original grade and condition.

Besides the initial application during the planting period, the Contractor shall apply fertilizer:

(1) at least three (3) times during the plant establishment period,

(2) at intervals not closer than two and a half (2-1/2) months, and

(3) at a rate of not less than three hundred (300) pounds per acre per application.

The Contractor shall replant the areas that does not show a thorough "catch". The Contractor shall replant and grow the area according to the contract.

The Engineer will decide the acceptability of the planted areas when *|
the plant establishment period ends. The Contractor shall promote the *|
grass to healthy growth condition. Final acceptance will be upon *|
providing ninety-eight (98) percent coverage with three (3) inch tall, *|
healthy grass. No one hundred (100) square feet area shall have more *|
than a total of two (2) square feet of bare spot.

The Contractor shall be responsible for protecting the planted areas *|
until final acceptance of this work. The Contractor shall repair damages *|
by pedestrians or vehicular traffic or other causes at no cost to the *|
State except conditions as covered in Subsection 107.20 - Contractor's *|
Responsibility for Work.

618.04 Method of Measurement. The Engineer will measure grassed surfaces by *|
the square foot at the locations shown in the contract or as ordered. |

The Engineer will not measure grassed surfaces when contracted on a lump *|
sum basis. |

618.05 Basis of Payment. The Engineer will pay for the accepted quantities *|
of grassed surfaces at the contract unit price per square foot or on a lump *|
sum basis as specified in the proposal. *|

The price shall be full compensation for clearing and grading the planted *|
areas, watering, preparing the ground, adding soil amendments, furnishing *|
plants, placing and/or planting materials, plant establishment, furnishing *|
equipment, materials, tools, labor, and incidentals necessary to complete this *|
work. *|

The Engineer will make payment under: *|

Pay Item	Pay Unit
Grassed Surfaces	Square Foot
Grassed Surfaces (___ Sq. Ft.)	Lump Sum

(A) Partial Payment Schedule For Planting Period Only. |

The Engineer will pay the accepted quantities for: |

(1) forty (40) percent of the contract bid price upon completion of |
planting; |

(2) sixty (60) percent of the contract bid price upon completion of |
the planting period; |

(B) Partial Payment Schedule For Planting Period And Plant Establishment Period; |

The Engineer will pay the accepted quantities for: |

(1) forty (40) percent of the contract bid price upon completion of planting; |

(2) twenty (20) percent of the contract bid price upon completion of the planting period; |

(3) forty (40) percent of the contract bid price in three (3) trimonthly payments of ten (10), ten (10) and twenty (20) percent for satisfactory progress during the plant establishment period. |

The Engineer will pay for planting soil according to Section 617 - *|
Planting Soil. *|

When not specified in the proposal, the Engineer will not pay for *|
grassed surfaces separately. The Engineer will consider grassed surfaces *|
incidental to the various contract items. *|