

SECTION 02903 - SPRIGGING

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. The General Provision of the contract, including the General Provisions for Construction Projects (2016), Special Provisions, and General Requirements of the Specifications, apply to the work specified in this section.
- B. This Section shall be in accordance with FAA Specification Item T-903 - Sprigging, as included as an attachment to this Section.

1.2 SUMMARY

- A. This item shall consist of planting sprigs of living grass plants at the locations shown on the plans or as directed by the RPR in accordance with these specifications.

1.3 REFERENCES

- A. FAA Specification Item T-903 – Sprigging as modified herein
- B. Section 02152, Excavation, Subgrade, and Embankment.
- C. Section 02905, Topsoil.

1.4 SUBMITTALS

Prior to commencing Work in this Section, submit information on the following items according to Section 01300, Submittals:

- A. Plant materials sprigs
- B. Fertilizer material
- C. Planting Plan including the equipment for proper preparation of the ground surface, handling, and planting method for the sprigs.
- D. Temporary irrigation plan.

PART 2 PRODUCTS

- A. Plant material sprigs: in accordance with FAA Specification Item T-903, paragraph 2.1.
- B. Fertilizer: in accordance with FAA Specification Item T-903, paragraph 2.3.

PART 3 EXECUTION

3.1 Construction methods shall be in accordance with FAA Specification Item T-903.

PART 4 MEASUREMENT AND PAYMENT

4.1 METHOD OF MEASUREMENT

A. Method of measurement and payment shall be in accordance with FAA Specification Item T-903, paragraph 903-4.1.

4.2 BASIS OF PAYMENT

A. Basis for payment shall be in accordance with FAA Specification Item T-903, paragraph 903-5.1.

PART 5 ATTACHMENTS

5.1 FAA SPECIFICATIONS

A. Item T-903, Sprigging.

END OF SECTION 02903

ITEM T-903 SPRIGGING

DESCRIPTION

903-1.1 This item shall consist of planting sprigs of living grass plants at the locations shown on the plans or as directed by the RPR in accordance with these specifications.

MATERIALS

903-2.1 Sprigs. Sprigs shall be healthy living stems (stolons or rhizomes), of Bermuda grass or of the grass species stated in the special provisions, harvested without adhering soil and obtained from sources where the sod is heavy and thickly matted. The presence of weeds or other material that might be detrimental to the proposed planting will be cause for rejection of sprigs.

903-2.2 Lime. Not Used.

903-2.3 Fertilizer. Fertilizer shall be standard commercial fertilizers supplied separately or in mixtures containing the percentages of total nitrogen, available phosphoric acid, and water-soluble potash. They shall be applied at the rate and to the depth specified, and shall meet the requirements of applicable state laws. They shall be furnished in standard containers with name, weight, and guaranteed analysis of contents clearly marked thereon. No cyanamide compounds or hydrated lime shall be permitted in mixed fertilizers.

The fertilizers may be supplied in one of the following forms:

- a. A dry, free-flowing fertilizer suitable for application by a common fertilizer spreader;
- b. A finely-ground fertilizer soluble in water, suitable for application by power sprayers; or
- c. A granular or pellet form suitable for application by blower equipment.

First Application: Fertilizer shall be 10% nitrogen, 20% phosphate, and 20% potash commercial fertilizer and shall be spread at the rate of 500 lbs/acre about two weeks after grassing and shall be followed by watering.

Second Application: Fertilizer shall be 16% nitrogen, 16% phosphate, and 20% potash commercial fertilizer and shall be spread at the rate of 300 lbs/acre one week before the end of the maintenance period and shall be followed by watering.

903-2.4 Water. All water used shall be sufficiently free from oil, acid, alkali, salt, or other harmful materials that would inhibit the growth of grass.

903-2.5 Soil for repairs. The soil for fill and topsoiling of areas to be repaired shall be at least of equal quality to that which exists in areas adjacent to the area to be repaired. The soil shall be relatively free from large stones, roots, stumps, or other materials that will interfere with subsequent sowing of seed, compacting, and establishing turf, and shall be approved by the RPR before being placed.

CONSTRUCTION METHODS

903-3.1 General. Areas to be sprigged and the location of sprigging material, if available on the site, shall be shown on the plans. Areas requiring special ground surface preparation such as tilling, and those in a satisfactory condition to remain undisturbed, shall also be shown on the plans.

Suitable equipment necessary for proper preparation of the ground surface and for the handling and placing of all required materials shall be on hand, in good condition, and shall be approved by the RPR before the various operations are started. The Contractor shall demonstrate to the RPR, before starting the various operations, that the planting and application of required materials will be made at the specified rates.

When weather conditions are such that unsatisfactory results may occur, the work shall be stopped until the desired results can be obtained.

903-3.2 Advance preparation and cleanup. After grading of areas has been completed and before applying fertilizer and limestone, areas to be sprigged shall be raked or otherwise cleared of stones larger than 2 inches (50 mm) in any diameter, sticks, stumps, and other debris which might interfere with sprigging, growth of grasses, or subsequent maintenance of grass-covered areas. If any damage by erosion or other causes has occurred after grading of areas and before beginning the application of fertilizer and ground limestone, the Contractor shall repair such damage including filling gullies, smoothing irregularities, and repairing other incidental damage.

903-3.3 Applying fertilizer and ground limestone. Following advance preparation and cleanup, fertilizer shall be uniformly spread at a rate that will provide not less than the minimum quantity of each fertilizer ingredient as stated in the special provisions. If use of ground limestone is required, it shall then be spread at a rate that will provide not less than the minimum quantity stated in the special provisions. These materials shall be incorporated into the soil to a depth of not less than 2 inches (50 mm) by discing, raking, or other suitable methods. Any stones larger than 2 inches (50 mm) in any diameter, large clods, roots, and other litter brought to the surface by this operation shall be removed.

In steep slopes where fertilizer and ground limestone cannot be incorporated effectively by mechanical equipment, they may be applied with power sprayers, blower equipment, or other approved method, and need not be incorporated into the soil.

903-3.4 Harvesting sprigs. The sprigs obtained from sources off the site shall be from suitable areas as close as practical to the planting site. Regardless of the source, sprigging material that contains grass and weeds taller than 6 inches (150 mm) shall be mowed to a height of 3 inches (75 mm), and the clippings raked and removed before harvesting begins. Harvesting may be performed by any suitable method, including crisscross cultivation, shallow plowing, or other acceptable methods to thoroughly loosen the sprigs from the soil and to bring them to the surface. After loosening the sprigs from the soil, they shall be gathered in small piles or windrows, watered, and kept moist until planted.

Not more than 24 hours shall elapse between harvesting and planting sprigs, except that, when weather or other uncontrollable conditions interrupt the work, a time extension may be granted, provided the sprigs are still moist and viable. Sprigs that have heated in stockpiles, have become frozen, permitted to dry out, or otherwise seriously damaged during harvesting or delivery shall be rejected and shall be disposed of as directed by the RPR.

903-3.5 Planting sprigs. Sprigging shall be done only within the periods stipulated in the special provisions. Sprigging shall not be done during windy weather, or when the ground is dry, excessively wet, frozen, or otherwise untillable. If the soil is not moist when the sprigs are being set, water shall be applied until the soil is moist and in a workable condition. One or more of the following methods shall be used, whichever is shown on the plans or stated in the special provisions:

a. Broadcast sprigging. Sprigs shall be broadcast by hand or by suitable equipment in a uniform layer over the prepared surface with spacing between sprigs not to exceed 6 inches (150 mm). The sprigs shall then be forced into the soil to a depth of 2 to 4 inches (50 to 100 mm) with a straight spade or similar tool, or with a disc harrow or other equipment set to cover the sprigs to the required depth.

b. Row sprigging. Furrows shall be opened along the approximate contour of slopes at the spacing and depth stated in the special provisions. Sprigs shall be placed without delay in a continuous row in the open furrow with successive sprigs touching, and they shall be covered immediately.

c. Spot sprigging. Spot sprigging shall be performed as specified under row sprigging, except that groups of four (4) sprigs or more shall be spaced 18 inches (0.5 m) apart in the rows.

903-3.6 Mulching and compacting. After planting of sprigs has been completed and prior to compacting, the surface shall be cleared of stones larger than 2 inches (50 mm) in any diameter, large clods, roots, and other litter brought to the surface during sprigging.

If mulching of sprigged areas is shown on the plans or stated in the special provisions, the sprigged areas shall be covered with mulch in accordance with the requirements of Item T-908 within 24 hours from the time sprigging has been completed, weather and soil conditions permitting.

If mulching is not shown on the plans nor stated in the special provisions, the sprigged area shall be compacted within 24 hours from the time sprigging has been completed, weather and soil conditions permitting, by cultipackers, rollers, or other satisfactory equipment operated at right angles to the slope. Compaction shall not be done when the soil is in such condition that it is picked up by the equipment.

903-3.7 Establishing turf. A stand of turf shall be when there is 95% ground cover of the established species. The Contractor shall be responsible for the proper care of the sprigged areas during the period when the plants are becoming established and he shall protect the sprigged areas against traffic by warning signs or barricades approved by the RPR. Surfaces gullied or otherwise damaged following sprigging shall be repaired by

regrading and resprigging as directed by the RPR. The Contractor shall mow, water as directed, and otherwise maintain sprigged areas in a satisfactory condition until final inspection and acceptance of the work.

903-3.8 Temporary Irrigation. The Contractor shall develop and implement a temporary irrigation plan for review and approval. The irrigation may be a combination of water truck sprayers, sprinklers, or gravity-fed drip system designed to provide adequate pressure and coverage to irrigate the sprigging area. Any proposed sprinkler irrigation system shall allow for a manifold connection to the Contractor's water truck or temporary water line. The connection points are required to be located outside of the runway and taxiway safety areas to avoid airfield impacts. All irrigation piping shall be secured to the ground, shall be constructed of non-metallic materials, and shall not exceed 3 inches in height. Metallic irrigation fixtures will not be permitted. Temporary irrigation shall be performed for a minimum of 3 months or longer to establish a good stand of grass of uniform color and density with 95% coverage and to the satisfaction of the Engineer. The Contractor shall be responsible to remove the temporary irrigation system.

METHOD OF MEASUREMENT

903-4.1 All work under this section will not be measured for payment.

BASIS OF PAYMENT

903-5.1 Items covered by this section will be paid by lump sum. The contract price paid shall be for full compensation for furnishing and placing all materials and all labor, equipment, tools, and incidentals necessary for each of the construction phases. Payment will be made under:

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
02903.1A	Sprigging (Phases 0 through 3)	Lump Sum
02903.1B	Sprigging (Phase 4)	Lump Sum

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM International (ASTM)

ASTM C602 Standard Specification for Agricultural Liming Materials

Advisory Circulars (AC)

AC 150/5200-33 Hazardous Wildlife Attractants on or Near Airports

FAA/United States Department of Agriculture

Wildlife Hazard Management at Airports, A Manual for Airport Personnel

END OF ITEM T-903

END OF SECTION 02903