



Florida Department of Transportation

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SECRETARY

MEMORANDUM

DATE: March 29, 2016

TO: Rudy Powell, Director, Office of Maintenance; Mike Sprayberry, State Administrator for Maintenance Contracts; Jason Watts, General Counsel's Office; Greg Davis, State Estimates Office, Maintenance Distribution List

CC: Dan Hurtado, State Specifications Engineer; Darrell Broxsie, General Counsel's Office; Mark Wilson, Acting Manager, Program Management Office

FROM: Frances Thomas, Specifications Development Specialist

SUBJECT: Proposed Specification: 580000WF Wildflowers

Attached for your review and comments is a copy of the subject proposed specification.

The changes are proposed by Hugo Murcia of Turnpike Enterprise Maintenance Office to provide a specification for wildflower installation and maintenance.

Please share this proposal with others within your responsibility. Review comments are due within four weeks and should be sent to Mail Station 75 or by email to Frances Thomas at frances.thomas@dot.state.fl.us.

Comments received after **April 26, 2015** may not be considered. Your input is encouraged.

Attachment

WILDFLOWERS.**(REV ~~5-7-15~~3-29-16)**

The following new Section is added at the end of Section 580:

**SECTION 580WF
WILDFLOWERS**

580-1 Description.

Perform wildflower installation and maintenance as indicated in the Work Documents.

580-2 Materials.

Meet the following requirements:

Turf Materials	Section 981
Fertilizer	Section 982
Water	Section 983

All required wildflower seed will be provided by the Department ~~to the Contractor~~.

Locations, species and rates to be used will be detailed ~~to the Contractor~~ in the Work Document.

580-3 Construction Methods.

580-3.1 Layout: The location of wildflower beds as shown on the Work Document, are approximate. At no cost to the Department, the final locations may be adjusted to accommodate unforeseen field conditions or to comply with safety setbacks and requirements.

Mark proposed mowing limits and wildflower beds as shown in the Work Documents for the Engineer's review, prior to bed preparation and planting.

Make no changes to the layout, materials or any variations of plant materials from the Work Documents without the Engineer's written approval.

580-3.2 Repair and Restoration: Repair and restore existing areas disturbed by installation or maintenance activities. Where new turf is required to restore and repair disturbed areas, meet the requirements of Section 570.

580-3.3 Disposal of Debris: Remove and dispose of all debris generated from the preparation of wildflower beds and installation of wildflower plants at the end of each day's work and in compliance with all Federal, State and Local laws and ordinances.

580-4 Wildflower Bed Preparation and Seed Installation.

As directed by the Engineer, provide broadleaf weed control as a site preparation treatment several months to a year before the areas are seeded with wildflower seed.

As directed by the Engineer, furnish and apply a non-selective herbicide 22 calendar days prior to planting to treat all undesirable vegetation in wildflower areas. Re-treat project site with a non-selective herbicide 12 calendar days later or as directed by the Engineer. All herbicide treatment should be conducted according to Section 580-33.

Mechanically scalp and then remove clippings from site two days prior to planting or ten days after second application of herbicide or as directed by the Engineer. Areas are to be cut to a height of 1 inch or less.

Plant seeds using a drill seeder with a no-till apparatus. Planting depth shall be set to 1/8 to 1/4 inch deep. Equipment must be calibrated to ensure that the specified pounds of seed per acre are dispensed properly.

Take care to not unnecessarily disturb the soil prior to or after seed application. After seed is planted, no machinery is to travel over planted areas.

580-5 Wildflower Maintenance.

Keep the individual wildflower locations and wildflower planting beds free of litter and undesirable vegetation.

Mow grass or vegetation in wildflower areas with conventional mowing equipment. Use specialized equipment or hand labor as specified in the Work Documents. Comply with the current edition of the Department's "Florida's Turnpike Enterprise Roadside Vegetation Management Plan."

Large Machine Mowing: As directed by the Engineer, mow wildflower areas using large machine mowing equipment capable of mowing at various heights. Mowing will be performed 3 to 4 weeks after wildflowers bloom and set seed, and may be mowed up to once per month afterwards until wildflower plants begin to grow again seasonally. Typically, mowing cycles will be done from June until October, however each site will have differing requirements. Follow the Engineer's direction when conducting mowing operations for each site. Care should be taken to avoid transporting tropical soda apple, cogon grass, and any other noxious weed seed or root fragments to the wildflower sites.

Small Machine Mowing: Use small machine mowing equipment in areas not accessible by large machinery, or in areas requiring greater detail than could be provided with large machinery. Selectively mow weeds and turf within wildflower beds in order to accentuate wildflower aesthetics. Extreme caution must be used to not mow or damage wildflower plants. Use a variety of small machine mowing equipment including but not limited to hedge trimmers, string trimmers, and lawnmowers.

Use non-selective herbicide application for weed control as directed by the Engineer. When appropriate, and as directed by the Engineer, use a pre-emergent herbicide to control germinating weeds after wildflower plants have grown to at least 4 inches in height, or have become well established. Use only herbicides that have been shown not to damage existing wildflower plants.

If the site does not receive adequate rainfall after a pre-emergent application, water the area to facilitate effectiveness of treatment. This shall be done once, at 1/2 inch, or 13,577 gallons per acre. Watering must be done within 30 days of application or less, depending on recommendations from the product label. Watering will be done to ensure all areas receive uniform coverage, that run-off is minimized, and plants will not be damaged by the force of the water or the equipment being utilized.

As directed by the Engineer, apply a grass specific herbicide to control undesirable grass species in wildflower plots. Apply post-emergence to problematic grasses as a spot treatment or as an application over the entire area. Use herbicides with active ingredients fluazifop-p-butyl, clethodim, sethoxydim, or fenoxaprop, following all instructions from the manufacturer's label. Combining these products is permitted if allowed by the product label.

As directed by the Engineer, apply post-emergent herbicide as a spot treatment to various weeds in a wildflower area. Herbicide shall be applied selectively, minimizing any damage to

wildflower plants. Specific weed species will be targeted. The treatment will be directed as a spot spray, using a low volume pump such as a backpack sprayer or spray bottle.

Before application, take measures to thoroughly clean out the chemical application system being used, ensuring that residues from other chemicals/herbicides will not contaminate the herbicide solution.

Remove weeds manually by hand, with minimal soil disturbance, when growing in and around wildflowers that precludes the use of herbicides. The physical removal of the entire weed plant, including roots, is expected. Dispose of weeds off-site.

580-6 Disposal of Surplus Materials and Debris.

Remove from the jobsite any surplus material or debris unless otherwise directed by the Engineer. Surplus is defined as material not needed after installation of wildflower plants per the Work Documents.

580-7 Method of Measurement.

580-7.1 Bed Preparation: The quantity to be paid will be number of acres of small machine mowing and the number of acres of strip application herbicide.

580-7.2 Installation of Wildflower Seeds: The quantity to be paid will be the number of acres of wildflowers planted.

580-7.3 Routine Wildflower Maintenance: The quantity to be paid will be the number of acres of wildflowers maintained.

580-7.4 Periodic Wildflower Maintenance: The quantity to be paid will be in accordance with the following when required by the Engineer:

1. The number of acres of small machine mowing or large machine mowing provided in accordance with Section 104-40;
2. The number of acres of litter removal provided in accordance with Section 110-30;
3. The number of acres of strip application herbicide provided in accordance with Section 580-33;
4. The number of acres of spot application herbicide provided in accordance with Section 580-33.

580-8 Basis of Payment.

Price and payment will be full compensation for all work and materials specified in this Section, including all ancillary work and materials necessary to meet the Contract requirements.

Payment will be made in accordance with the items shown in the Bid Price Proposal.

580-8.1 Bed Preparation: Payment will be full compensation for all labor, materials, equipment and incidentals for herbicide application and mechanical scalping of the wildflower bed.

580-8.2 Installation of Wildflower Seeds: Payment will be full compensation for all labor, materials, equipment and incidentals for seed drilling, installing wildflower seed, and installation of protective signs.

580-8.3 Routine Wildflower Area Maintenance: Payment will be full compensation for all labor materials, equipment and incidentals necessary to perform the following activities as a routine cycle: remove and dispose of litter; remove, mow, hand-pull, or treat with herbicide, various weeds or woody/herbaceous exotic species from wildflower areas.

580-8.4 Periodic Wildflower Area Maintenance: Payment will be full compensation for all labor materials, equipment and incidentals necessary to perform periodic maintenance activities.