

**ITEM 617.0101 24 – CONTROLLING INVASIVE PLANT SPECIES WITH  
HERBICIDES**

**ITEM 617.0102 24 – CONTROLLING INVASIVE PLANT SPECIES BY PULLING**

**ITEM 617.0103 24 – CONTROLLING INVASIVE PLANT SPECIES BY EXCAVATION**

**ITEM 617.10 24 – DISPOSAL OF MATERIAL CONTAINING INVASIVE PLANT SPECIES**

**ITEM 617.11 24 – EQUIPMENT CLEANING FOR INVASIVE PLANT SPECIES**

**DESCRIPTION.** This work shall consist of control and disposal of identified invasive species and disposal of infested soil in accordance with the contract documents and as directed by the Engineer. The work described is to control the spread and/or re-growth of invasive species. Specific control methods to be used are identified in the Special Note entitled *Controlling Invasive Plant Species*.

**MATERIALS.**

Herbicide: EPA/NYSDEC Label-approved herbicide conforming to §713-13 *Pesticides*. Surfactants added to increase the effectiveness of the herbicide may be used, in accordance with manufacturers' labels. Tracer dye shall be used in herbicide mixes to aid in identifying application coverage. Additional permitting from regulatory agencies may be required prior to application.

**CONSTRUCTION DETAILS.**

The work shall be performed in accordance with the requirements of Special Note entitled *Controlling Invasive Plant Species*.

**Site Preparation.** Refer to the Special Note for specific control methods of targeted invasive species.

**Controlling Invasive Plant Species.** Four methods are described:

**1. Pulling.**

- a. Contractor shall hand-pull, or remove using hand tools, all stems and associated roots within the designated areas shown in the contract documents at the times specified.
- b. All plant parts shall be carefully placed in black plastic bags (0.1 mm minimum) and securely tied or sealed.
- c. Care shall be taken in pulling stems to remove as much of the root mass as possible.
- d. Supplemental digging using hand tools to remove roots/ rhizomes or herbicide treatment may be required. Refer to the Special Note entitled *Controlling Invasive Plant Species*.
- e. Plant material shall be treated and/or transported in accordance with *Disposal of Material*.

**2. Excavation.**

- a. Mechanical methods may be used to remove plant material.

- b. Removal perimeter shall extend no less than 5 m beyond the leading edge of invasive species stand.
- c. Excavation shall extend to a minimum depth of 2 m below proposed final grade.
- d. Excavated area shall be backfilled with uncontaminated suitable material.
- e. Excavated material shall be treated and/or transported according to *Disposal of Material*.

**3. Herbicide Application.**

- a. The herbicide applicator shall be a NYSDEC Certified Commercial Pesticide Applicator. In planning the use of herbicides to control invasive species, the Contractor and Certified Pesticide Applicator shall ensure that herbicides used are labeled for the target species through the pesticide label or through the unlabeled pest process.
- b. Herbicide shall be applied by hand-sprayer, back-pack, wick application, stem injection or herbicide clippers.
- c. Site preparation for herbicide application shall include cutting dormant stalks and actively growing plants approximately 4 weeks prior to first annual treatment.
- d. Contractor shall be responsible for all public notification and posting requirements.

**Disposal of Material.** Cut plant material shall be placed in (0.1 mm minimum thickness) black plastic bags for transportation out of the area. Bags shall be securely tied or sealed. Soil containing seeds, roots and/or rhizomes shall be wrapped in black plastic sheeting (0.1 mm minimum thickness) and transported in a manner which prevents the spread of the contaminated material during transport. Acceptable disposal methods can be one of the following:

- *Bury* - Soil containing invasive plant material shall be buried either in an excavated pit or fill section, covered with at least 2 m of uncontaminated fill material (eg: embankment in place, topsoil, etc.) Soil containing invasive plant material shall not be buried within 30 m of a water body (including wetlands). Disposal of surplus excavated material generated from this disposal method shall be at no additional cost to the State.
- *NYSDEC Quarry/ Mine Reclamation* - Where feasible and accessible, material shall be transported to an approved quarry/ mine accepting invasives-contaminated fill material.
- *Landfill/ Incinerator* - Plant material or spoil containing invasive plant material shall be disposed of in a municipal solid waste management facility or incinerator that is operated under current 6 NYCRR Part 360 regulations.
- *Approved NYSDOT disposal facility* - Where available, plant material or spoil containing invasive plant material may be disposed of in regional invasive species

disposal facilities as identified in the contract documents.

Stockpiling and stockpile location(s) of soil containing invasive plant material shall be approved by the Engineer. Invasive species spoil stockpiled on site shall be identified as such so not to be inadvertently used in a manner that is not consistent with *Disposal of Material*. Stockpiles shall be stabilized to prevent erosion and transport of invasive material. Stockpiling shall be at no cost to the State.

The Contractor shall identify the disposal location(s) and obtain approval from the Engineer at least 5 calendar days prior to disposal.

**Equipment Cleaning.** Equipment used in areas containing invasive plant species shall be power-washed (6900 kPa minimum) and cleaned with clean water (without using cleaning soaps or chemicals) before leaving the invasive control/removal area to prevent the spread of seeds, roots, or other viable plant parts. Water may be supplied by a municipal water source or may be pumped from an on-site or local surface water source. If water is drawn from a local water source, to protect aquatic life, there shall not be any loss of water elevation at the site of withdrawal or immediately downstream of the site. Withdrawal from surface waters may be subject to USACOE, NYSDEC and other regulations. Equipment cleaning stations shall include either a constructed cleaning station conforming to §209-3.13 *Construction Entrances* or a portable commercial cleaning station with a rack. Loose plant and soil material that has been removed from clothing, boots and equipment, or generated from cleaning operations, including constructed cleaning station material after use, shall be disposed of as described in *Disposal of Material*. If sufficient space is not available or precluded by terrain to provide a cleaning station on site, upon approval by Engineer, equipment used within an infested area may be power-washed adjacent to the invasive control/removal area, provided that the wash water (including spray) does not discharge within 30 m of any stream, existing or proposed wetland, or stormwater conveyance (eg: ditch, catch basin, etc). If upon completion of construction, the area remains infested with invasive plants, the invasive material generated may remain in the infested area.

**Care of Controlled Areas During Construction.** The Department will inspect all treated areas approximately every 4 weeks during the growing season (or during the following growing season for fall applications if contract continues into the following growing season). If additional treatments are necessary, the Contractor shall apply treatment to all identified areas within 10 calendar days of notification. Additional treatments will be considered extra work.

**METHOD OF MEASUREMENT.**

**Herbicides.** The quantity of controlling invasive species to be measured for payment will be in square meters of surface area controlled, measured to the nearest square meter.

**Pulling.** The quantity of controlling invasive species to be measured for payment will be in square meters of surface area controlled, measured to the nearest square meter.

**Excavation.** The quantity of controlling invasive species to be measured for payment will be in cubic meters removed, measured to the nearest cubic meter.

**Disposal of Material Containing Invasive Plant Species.** The quantity to be measured for payment of contaminated material disposal will be in cubic meters removed, measured to the nearest cubic meter.

**Equipment Cleaning for Invasive Plant Species.** The quantity to be measured for payment of equipment cleaning will be on a lump sum basis.

**BASIS OF PAYMENT.**

**Herbicides.** The unit price bid will include the cost of all labor, materials and equipment necessary to perform site preparation and satisfactorily complete the work.

**Pulling.** The unit price bid shall include the cost of all labor, materials and equipment necessary to satisfactorily complete the work.

**Excavation.** The unit price bid shall include the material and work required to perform site preparation, excavation, backfill the excavated area and surplus material removal. Backfill quantity shall not exceed the quantity of material excavated.

**Disposal of Material Containing Invasive Plant Species.** The unit price bid shall include the cost of all labor, materials and equipment necessary to satisfactorily complete the work.

**Equipment Cleaning for Invasive Plant Species.** The lump sum price bid shall include the cost of all labor, materials and equipment necessary to satisfactorily complete the work.

*Payment will be made under:*

<b>Item No.</b>	<b>Item</b>	<b>Pay Unit</b>
617.0101--24	Controlling Invasive Plant Species with Herbicides	Square Meter
617.0102--24	Controlling Invasive Plant Species by Pulling	Square Meter
617.0103--24	Controlling Invasive Plant Species by Excavation	Cubic Meter
617.10----24	Disposal of Material Containing Invasive Plant Species	Cubic Meter
617.11----24	Equipment Cleaning for Invasive Plant Species	Lump Sum