

## **ITEM 01615.03XX M - CONTROLLING INVASIVE PLANTS**

### **DESCRIPTION**

This work shall consist of applying herbicides, cutting, removing, transporting, and disposing of identified invasive plant species, and/or using polyethylene sheeting to control their spread and/or regrowth as specified in the contract documents or as directed by the Engineer.

### **MATERIALS**

Six (6) mil Polyethylene Sheeting

A water-soluble, non-selective foliar applied herbicide having no residual soil activity conforming to Section 713. The herbicide shall be approved by the Regional Landscape Architect prior to use.

### **CONSTRUCTION DETAILS**

**Season.** The work shall be performed during the season(s) specified in the contract documents.

### **Site Preparation**

#### **1. Using Polyethylene Sheeting.**

- a. Cut invasive plants to a height of between 150 - 200 mm in the locations shown in the plans and at the times specified in the Contract Documents.
- b. All cut plant parts shall be carefully placed in heavy black plastic bags and tightly secured before moving them off-site or as specified in contract documents.
- c. Cover the cut plant stems with black plastic and securely anchor.

#### **2. Using Herbicides.**

- a. Cut invasive plants to a height of 100 mm as shown on the plans and at the times specified in the Contract Documents
- b. All plant parts shall be carefully placed in heavy black plastic bags and tightly secured before moving them off-site.
- c. Immediately after cutting the plant stems, all cut plant stem surfaces shall be carefully treated with an approved mixture of herbicide and distilled water.
- d. Three (3) to four (4) weeks later, all resprouted plants shall be cut to a height of 100 mm, with the cut plant parts carefully bagged and secured before removing from the site. The remaining plant stems shall be immediately treated with the approved herbicide mixture.

#### **3. By Pulling.**

- a. Hand or mechanically pull all stems and associated roots within the designated areas shown and at the times specified in the Contract Documents.
- b. All cut plant parts shall be carefully placed in heavy black plastic bags and tightly secured before moving them off-site or as specified in the contract documents.
- c. Care shall be taken in pulling stems to remove as much of the root mass as

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possible. Some supplemental digging may be required.

### 2. By Digging.

- b. Mechanical methods may be used to remove plant material.
- c. A removal perimeter should be established no less than two times the average height of the adjacent plants to be removed.
- d. Excavation shall extend a minimum of 600 mm below the last part of the root mass.
- e. Material should be transported, covered, to a secure site with no possibility for further propagation.

**Liability.** When the Engineer determines that the identified invasive species have not been satisfactorily eliminated after a suitable period of time has elapsed, the Contractor shall repeat the above-specified steps until the target invasive plant species is satisfactorily controlled in the identified areas. Any areas requiring additional treatments, as determined by the Engineer will be at the Contractor's expense. The contract will not be accepted until satisfactory control of the targeted invasive plants has been achieved.

**Disposal of Material.** Material bagged and removed from the project site, or from cleaning operations, shall be dried or decomposed at an approved location, disposed of in an approved landfill or incinerated at an approved facility or with the appropriate burn permits.

**Equipment Cleaning.** All clothing, boots, and equipment used in areas containing invasive plant species shall be cleaned prior to entering the site and prior to leaving the site to prevent the spread of seeds, roots, or other viable plant parts. Loose material that has been removed from clothing, boots, or equipment shall be disposed of at a secured site with no possibility for future propagation.

**Care of Controlled Areas During Construction.** Care shall consist of keeping the areas free of resprouting, by repairing/replacing polyethylene sheeting, cutting and treating new sprouts, pulling, or digging newly emergent invasive plants. The Contractor shall care for the controlled areas of invasive plants until final acceptance of the contract or as required under "Period of Disestablishment for Invasive Plants".

**Period of Disestablishment for Invasive Plants** shall begin one year after the satisfactory completion of all invasive species control methods or when the contract is complete, whichever is later, as confirmed in writing by the Engineer. The Contractor shall be required to continue the work specified under "**Care of Controlled Areas During Construction**" for a period of one additional year.

## **METHOD OF MEASUREMENT**

Controlling invasive plants will be measured as the number of square meters of surface area that have been satisfactorily controlled.

## **BASIS OF PAYMENT**

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The unit price bid per square meter shall include the cost of all labor, materials and equipment, including disposal, and incidentals necessary to complete the work.

Payment will be made under:

<b>Item No.</b>	<b>Item</b>	<b>Pay Unit</b>
01615.0301 M	Controlling Invasive Plants with Plastic	Square Meter
01615.0302 M	Controlling Invasive Plants with Herbicides	Square Meter
01615.0303 M	Controlling Invasive Plants by Pulling	Square Meter
01615.0304 M	Controlling Invasive Plants by Digging	Square Meter

DISAPPROVED BY E/ 09-002