

## **SECTION 729– ERADICATION OF INVASIVE SPECIES**

### **729.01 DESCRIPTION**

This work shall consist of eradicating numerous invasive species within the limits specified in the Contract Documents. Species to be removed include but not limited to Multiflora rose (*Rosa multiflora*), Japanese knotweed (*Polygonum cuspidatum*), porcelainberry (*Ampelopsis brevipedunculata*), honeysuckle (*Lonicera Japonica*), mile-a-minute (*Polygonum perfoliatum*), autumn olive (*Elaeagnus umbellata*), Bradford pear (*Pyrus calleryana* 'Bradford'), Paulownia, Tree of Heaven (*Ailantus altissima*), Miscanthus, periwinkle (*Vinca minor*), Japanese holly (*Ilex crenata*), and *Euonymus*.

### **729.02 QUALITY ASSURANCE**

Sub-contractor who performs the work of eradication of invasive species shall be approved by M-NCPPC prior to the contract being executed. Invasive removal and related work shall be performed by a firm with a minimum of five (5) years experience specializing in this type of work. Contractor must submit a list with reference of three (3) projects of similar magnitude, where this type of work has been completed within that time period. Contractor must be a current Maryland Department of Agriculture Certified Pesticide Applicator for any use of herbicides. All work shall meet applicable Federal, State and County regulations and requirements.

### **729.03 MATERIALS AND EQUIPMENT**

- A. All materials will be furnished by the Contractor. Herbicide shall be a 2% solution of glyphosate and water plus a 0.5% non-ionic surfactant.
- B. The contractor shall furnish the appropriate hand and power tools required to perform vegetation removal operations. This can include chainsaws, brushcutters, all associated safety equipment and incidentals necessary to complete the work. Additional tools, if needed, require approval by the M-NCPPC Construction Manager.
- C. Vehicular access to the site is limited. Access plan and vehicle type require approval by the M-NCPPC Construction Manager.

### **729.04 SUBMITTALS**

- A. A copy of label information from the glyphosate shall be submitted to the M-NCPPC Construction Manager prior to application.
- B. A schedule for eradication shall be provided to the M-NCPPC Construction Manager for approval. The schedule should be appropriate to allow for two

periods of re-growth and follow-up glyphosate application after the initial mechanical removal stage.

- C. Qualifications certificate shall be submitted to the M-NCPPC Construction Manager for the contractor's arborist with current verification from the International Society of Arboriculture and the American Society of Consulting Arborists. Also, verification of membership in good standing in the National Arborist Association shall be submitted. .
- D. Contractor will submit current Maryland Department of Agriculture certification of pesticide application.

### **729.05 CONSTRUCTION**

- A. It shall be the responsibility of the Contractor to verify the limits of invasive eradication with the M-NCPPC Construction Manager and Forest Ecologist before clearance operations have begun. As identified by M-NCPPC representatives, the Contractor shall tag existing trees and shrubs to remain.
- B. Protection of existing trees: Protect existing trees and other vegetation indicated to remain in place, against unnecessary cutting, breaking or skinning of roots, skinning and bruising of bark, smothering (by stockpiling construction materials or excavated materials within the drip line), excess foot and/or vehicular traffic, and parking of vehicles within the drip line. Provide temporary fences, barricades or guards as required to protect the trees and vegetation to remain. See Section 721 Tree Protection.
- C. The woody invasives shall be cut down using a rough-cut walk-behind mower and/or a gas powered hedge trimmer (e.g. Stihl Articulated 23 inch Long Hedge Trimmer). Any tree removal shall be performed by using chainsaws and manually dropping sections of the tree to minimize damage to the surrounding vegetation. No large equipment will be allowed, due to potential disturbance to wet soils and tree roots. Invasive species including trees that are cut shall be removed from the site and legally disposed of unless directed otherwise by the M-NCPPC Construction Manager. An optimal time to do this work would be during the late autumn/winter when native species have either died back for the year or are in leaf-off stage, and the non-natives are most evident.

After a period of approximately three months of the growing season, during which time invasive stems have produced new leafy growth, this shall be sprayed with glyphosate. A backpack sprayer with low pressure and coarse spray pattern shall be used to reduce spray drift damage to trees and shrubs that are identified to remain. The air temperature shall be above 65°F to ensure absorption of herbicide. Spraying shall be done uniformly to wet the leaves and green stems, but avoid runoff. The optimal time period is when plants are actively growing, but

before fruit formation. This application must be made on a day when winds are calm and shall be in accordance with the manufacture's instructions.

A second application of glyphosate shall be made after a two-three month period during which any additional leafy growth may emerge, following the procedure described above.

- D. Replacement of damaged trees: A concerted effort shall be made by the Contractor to protect the trees adjacent to the limits of clearance. If trees outside the limits or clearance are damaged or have been flagged for preservation Section 721 Tree Preservation should be followed. Any added work that has to be performed in this regard shall be at no cost to the Commission.
- E. Protection and restoration of existing improvements: Restore any improvements damaged by this work to their original condition, as acceptable to M-NCPPC or other parties or authorities having jurisdiction at no additional cost to the Commission.

#### **729.05 MEASUREMENT AND PAYMENT**

Payment shall be full compensation for all material, labor, equipment, tools, permits and licenses, and incidental items necessary to complete this work. Payment shall be made on a unit price or lump sum basis as stated in the Bid Form.