

## **ITEM 615. 43 11 M – GROUND SURFACE PROTECTION MATS**

**DESCRIPTION:** The work shall consist of furnishing, placing, maintaining, and removing Ground Surface Protection Mats for construction equipment access at work sites with soft soil conditions or for the protection of tree root systems at the locations shown in the plans or where directed by the Engineer.

**MATERIALS:** Ground Surface Protection Mats shall meet the following requirements:

- Manufactured from high-density polyethylene (HDPE).
- Each mat shall be approximately 2.4 meters by 4.2 meters (nominal),
- Each mat is to be equipped with a lip on two sides that creates an overlapping joint with an adjoining mat to allow for effective load distribution between adjacent mats.
- The interlocking mechanism shall consist of multiple connection points uniformly spaced along the full length of the overlapping lips of adjacent mats, fixed with locking pins.
- Manufacturer test data shall be submitted to demonstrate that each mat has a minimum compressive load bearing capacity of 40kg/cm<sup>2</sup> when tested with a clear span of 2.4 m minimum.

Mulching Material shall conform to Subsection 713-05 Wood Chips and the following:

- Mulch may be either wood chips or shredded bark.
- Wood chips shall be Type A composted (aged).
- Shredded bark shall be from hardwood trees which has been milled and screened to a maximum 75 mm particle size. Shredded bark shall be free from leaves, twigs, wood shavings, sawdust, toxic substances, and any foreign materials.
- Geotextile Fabric shall conform to Subsection 207-2 Materials, Geotextile Stabilization, Strength Class 1.

**CONSTRUCTION DETAILS:** The Contractor shall prepare a layout plan indicating the type and setup of construction equipment at each work site designated for protection to the Regional Landscape Architect for approval. The placement of the Ground Surface Protection Mats shall be supervised by ISA Certified Arborist.

All debris and foreign objects shall be removed from the area to be protected by the mats. When turf exists, the area to be protected shall be mowed to a height of 200 to 250 mm.

After mowing, the Contractor shall place a geotextile fabric upon the ground surface of the protection area. 100 to 150 mm of mulching material shall be evenly spread upon the geotextile fabric surface. Ground Surface Protection Mats shall be placed upon the mulching material as directed by the ISA Certified Arborist.

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Upon completion of construction operations at the site, the Contractor shall remove the Ground Surface Protection Mats, mulching material, and geotextile fabric. The ground surface shall be raked by hand.

The Contractor shall perform additional surface restoration, including re-seeding grassed areas, shall be performed under the applicable landscape items as indicated on the plans and as directed by the Engineer.

**METHOD OF MEASUREMENT:** Ground Surface Protection Mats shall be measured in place by the number of square meters to the nearest square meter of protection mat surface installed and satisfactorily removed from the site.

**BASIS OF PAYMENT:** The unit price bid per square meter shall include the cost of furnishing all labor, materials and equipment, including Ground Surface Protection Mats, mulching material, geotextile fabric, and all disposal costs necessary and required to complete the work in accordance with the plans and specifications and as directed by the Engineer. Permanent Landscaping will be paid for under their respective items.