



REPUBLIC OF THE PHILIPPINES  
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS  
OFFICE OF THE SECRETARY  
MANILA

MAR 23 2023

DEPARTMENT ORDER )

NO. 34 )  
Series of 2023 )

3/24/23

SUBJECT: Amendments to DPWH Standard  
Specification for ITEM 611 – TREE  
PLANTING

In order to ensure uniformity in the application/ adoption of the Pay Items of Work to be used/adopted by those who are involved in the preparation of the Design Plans and Quantities, Program of Works (POW) and Approved Budget for the Contract (ABC) for Infrastructure Projects Nationwide, the attached revised **DPWH Standard Specification for Item 611 – Tree Planting** is hereby prescribed for adoption in Government infrastructure projects.

This Standard Specification was revised to include vital provisions from Department Order No. 238, Series of 2022 (Mandatory Tree Planting as Part of the Environmental Sustainability Program for DPWH Flood Control Projects) and to support the environmental sustainability initiatives of the Department. The revised Pay Item Subscripts are now included in the Project and Contract Management Application (PCMA) and shall form part of the DPWH Standard Specifications for Highways, Bridges and Airports, Volume II.

This Order shall take effect immediately.

  
**MANUEL M. BONOAN**  
Secretary

14.1.2 MLL/JDV/RPF

Department of Public Works and Highways  
Office of the Secretary



WIN3U01854

## **Amendment to DPWH Standard Specification for ITEM 611 – TREE PLANTING**

### **611.1 Description**

This Item shall consist of providing and planting deciduous shade, flowering trees, evergreen, and/or fruit-bearing trees/seedlings/saplings on the identified areas and in the arrangements indicated by the Engineer in coordination with the Department of Environment and Natural Resources (DENR) Community Environment and Natural Resource Office (CENRO) or Provincial Environment and Natural Resource Office (PENRO) concerned, including labor and other incidentals necessary to complete the Item.

This Item shall also be in support and in compliance with the National Greening Program (NGP) under Executive Order No. 26, Series of 2011 and other environmental sustainability initiatives of the Government.

### **611.2 Material Requirements**

#### **611.2.1 Topsoil**

Topsoil shall conform to the requirements of Item 608, Topsoil.

#### **611.2.2 Mulching, Bracing, Anchor and Wrapping Materials**

Mulching material shall consist of approved wood chips, ground or crushed corn cobs, wood shavings, sawdust or peat moss. Wood chips shall be combination of wood slivers with ground wood or sawdust.

Bracing stakes for plants shall be 50 mm x 50 mm of rough wood free from unsound loose knots, rot, cross grain and sapwood or other defects that may impair its strength.

Anchor stakes shall be of the same quality as bracing stakes and of the size specified under operations calling for their use.

Wrapping material for trees shall be waterproof paper or burlap.

The tying material to be used in wrapping trees shall be jute twine or similar material not less than 2-ply for trees 7.5 mm or less in diameter and 3-ply for trees over 7.5 mm in diameter.

The wire to be used in bracing trees 7.5 mm or less in diameter shall be 3 mm (No. 11) galvanized steel wire and for trees over 75 mm in diameter, 40 mm (No. 9) galvanized steel wire shall be used. All wires shall be new and free from bends or kinks.

#### **611.2.3 Trees**

All trees furnished under this Item shall be the type, dimension and species specified in the Provisions and recommended by the DENR.

When specified in the Provisions, certain varieties of plants will be furnished by administration.

The Contractor shall submit complete and detailed information concerning the sources of supply for each item of plant materials before planting operations.

All existing laws and regulations requiring inspection for plant diseases and infections shall be complied with and each delivery shall be accompanied by necessary certificates of clearance to be presented to the Engineer.

Plants furnished by the Contractor shall be healthy, shapely and well-rooted and roots shall show no evidence of having been restricted or deformed at any time. Plants shall be well-grown and free from insect pest and disease.

Root condition of plants furnished by the Contractor in containers shall be determined by the removal of earth from the roots of not less than two plants nor more than two (2) percent of total number of plants of each specie or variety except when container-grown plants are from several sources, the roots of not less than two plants of each specie or variety from each source will be inspected by the Engineer. In case the sample plants inspected are found to be defective, the entire lot or lots of plants represented by the defective samples shall be rejected. Any plant rendered unsuitable for planting because of this inspection shall be considered as samples and will not be paid for.

### **611.3 Construction Requirements**

Planting of trees shall be undertaken in accordance with the approved methods/procedures of DENR.

#### **611.3.1 Baling of Plants and Trees**

Balling of plants and trees shall conform to the applicable requirements of Item 100, Clearing and Grubbing.

#### **611.3.2 Digging Plants**

All plants, nursery-grown or collected, shall be dug with care and skill immediately before shipping and avoiding all possible injury to the plants, loss or damage of the roots, particular attention being given to fibrous roots in this respect. After the plants are dug, their roots shall not be permitted to dry out. They shall not be exposed to hot temperatures. All plants shall be dug in dormant state and shall be so held until planted.

#### **611.3.3 Temporary Storage and Plant Spray**

After delivery and inspection, the plants shall be sprayed with an approved anti-desiccant prior to planting, heeling-in or storing, except in the case of collected stock which shall not be heeled-in or stored, but shall be sprayed with anti-desiccant immediately and planted within 36 hours after digging.

The spray shall cover both upper and lower surfaces of the branches and foliage to the point of run-off. Spray nozzles shall be the type to produce a fine mist.

Spraying shall be included for payment in the pertinent planting item. Following spray treatment with anti-desiccant, all plants which cannot be planted promptly shall be heeled-in in a trench, spread and the roots covered with moist soil. If plants are not to be stored for a



period longer than 10 days, they shall be placed in an approved well-ventilated, cool and moist storage shed and the roots completely covered with moist straw. All plants heeled-in or stored shall be properly maintained by the Contractor until planted. In the event heeled-in plant material must be held over for a longer period, such heeled-in material shall be lifted and replanted in a satisfactory manner in nursery rows.

The ball of soil and roots of balled and burlapped plants, if not immediately planted after delivery and inspection, shall be adequately protected by topsoil covering until removed for planting in a manner appropriate to the conditions and satisfactory to the Engineer.

Such emergency storage of plant shall be at the entire risk of the Contractor, including maintenance of same.

#### **611.3.4 Layout of Planting**

Before digging pocket holes or beds, the Contractor shall lay out, by suitable staking, the location of all pocket holes and beds. The layout of planting shall be approved by the Engineer.

#### **611.3.5 Roots and Top Pruning**

The ends of all broken and damaged roots, 6 mm diameter or larger, shall be pruned with a clean cut, removing no more than the injured portion. All plants shall be pruned to balance the top with the root system keeping the natural shape of the species. All dead woods shall be removed. All cuts and wounds, 12 mm or over in diameter, shall be painted with tree wound dressing immediately after the pruning.

#### **611.3.6 Pocket Holes**

Pocket holes shall be dug at the locations shown on the Plans or as directed by Engineer. The holes shall be dug to the depth and cross-section specified and should be of sufficient size to provide for not less than 150 mm of top soil backfill beneath and around the root system. The holes shall be dug with the sides vertical. Surplus excavation from the bed and pocket holes shall be disposed off as directed by the Engineer.

#### **611.3.7 Backfill**

The pocket holes shall be backfilled with topsoil as each plant is set. The topsoil shall be well-tamped by the worker's feet, rods or other approved tamping devices as it is shoveled into the holes. The backfill in holes on slopes shall be built-up on the lower side to catch and hold water. During planting the topsoil surrounding the plant be slightly depressed to hold water.

#### **611.3.8 Planting**

The operation of the actual planting shall not be performed at any time when the soil is not in a friable or workable condition. The Engineer shall also approve the location of each individual plant taking into consideration its size and shape, in order that the best possible arrangement will result.

One plant shall be planted in the center of each pocket hole and in the arrangement shown on the Plans. The plants shall be set on tamped topsoil backfill brought to the height

necessary to plant them at the same depth they grew, carefully spreading out the roots of barefoot stock in their natural position. Upright plants shall be kept in a vertical position. After placing the plant in the hole, the backfill shall be carefully made, tamping with the worker's feet and with round-end rods or other approved tamping devices to insure topsoil in and about all the roots. The topsoil shall be settled in and about the plant roots by application of water but at no time shall tamping or further topsoil backfill be made while this wet topsoil backfill is of a consistency that would permit its being compacted or puddled by so doing. All compaction shall be such that no plant will settle lower than the depth above specified. No air pocket shall be left around the root of any plants.

After filling halfway on the earth ball, the burlap shall be loosened and the top half cut off and removed after which the balance of the pocket hole shall be backfilled and tamped.

After planting and prior to mulching, fertilizers shall be applied evenly over the top of the backfilled area. Care shall be used so that the fertilizer does not get into contact with the stem, trunk, branches or leaves of the plants.

### **611.3.9 Mulching**

Within 24 hours after planting, mulching material shall be spread to cover the plant hole and the area 150 mm outside the periphery of the plant hole. The depth and application for wood chips shall be a minimum of 150 mm. For ground or crushed corn cobs, sawdust or peat moss the minimum depth shall be 100 mm.

### **611.3.10 Watering and Maintenance**

All trees/seedlings/saplings shall be watered during the planting operations, subject to direction and approval of the Engineer. From time to time during the duration of the Contract, sufficient water shall be applied so that not only will the topsoil backfill about each plant be kept moist, but also for moisture to extend into the surrounding soil.

The Contractor shall, during the duration of the Contract, properly care for all trees/seedlings/saplings furnished, planted or stored, performing such watering, weeding, cultivating or other ordinary maintenance work as shall be necessary to keep the stock in a live and healthy condition.

Trees/seedlings/saplings which have died back into the crown or beyond a normal pruning line shall be replaced by the Contractor at no additional expense.

### **611.3.11 Bracing**

All deciduous and evergreen trees shall be braced immediately after planting. Deciduous trees from 1.20 m to 1.80 m in height shall have one vertical support stake. Deciduous trees from 1.80 m to 2.50 m in height shall have two vertical support stakes.

Balled and burlapped deciduous or evergreen trees within the above size ranges shall be supported with the number of stakes specified for the group but instead of being placed vertically, shall be driven so that the stake does not enter or contact the earth ball around the plant roots. The stake or stakes shall be so placed that after being driven in place, the upper foot of the stake is within approximately 100 mm of the trunk at one-half of the height of the tree. If two are required, they shall be driven on opposite sides of the tree with the stake tops on opposite sides for fastening.



All trees, deciduous or evergreen over two and one-half meters shall be braced by the tripod method as directed by the Engineer.

#### **611.3.12 Dead Trees**

Before completion and final acceptance of the project, all unhealthy trees or that have died back into the crown or beyond the normal pruning line shall be replaced by the Contractor at his own expense with trees of the specified species or variety, size and quality and meeting the Specification.

#### **611.4 Method of Measurement**

The quantity to be paid for shall be the number of trees of each specie or variety called for in the Plans or in the provisions furnished, planted and accepted/certified by the Engineer with the necessary mulch, topsoil, water, fertilizer and other incidentals to complete the Item.

#### **611.5 Basis of Payment**

The quantities as determined in Section 611.4, Method of Measurement, shall be paid for at the Contract Unit Price each of the trees of each species or variety furnished, planted and accepted which price and payment shall constitute full compensation for furnishing all labor, tools and incidentals to complete the Item.

Payment shall be made under:

<b>Pay Item Number</b>	<b>Description</b>	<b>Unit of Measurement</b>
611 (1)	Trees (Furnishing and Transplanting)	Each
611 (2)	Trees (Transplanting)	Each
611 (3)	Seedlings/Saplings for Other Programs/Initiatives	Each

#### *References:*

1. *DPWH Standard Specifications for Highways, Bridges and Airports, Volume II, 2012 Edition, Item 611 – Tree Planting*
2. *Department Order No. 73, Series of 2014 (Prohibited Uses Within the Right-of-Way of National Roads)*
3. *Department Order No. 238, Series of 2022 (Mandatory Tree Planting as Part of the Environmental Sustainability Program for DPWH Flood Control Projects)*