Planting Notes for Landscape Plans

NOVEMBER 2019

INSTALLATION OF PLANT MATERIAL

1. The Permittee is responsible for obtaining the approved Forest Conservation Plan/Landscape Plan and providing a copy to the Landscape Contractor. The Permittee shall ensure that the Landscape Contractor can secure the plants shown the FCP/Landscape Plan. Plant substitutions are not allowed. It is strongly recommended that plant material be secured from supplier by the project start date.

2. A pre-planting meeting is required before installation of landscaping, afforestation, or reforestation. The applicant must schedule an on-site pre-planting meeting with the City Forestry Inspector. Attendees must include the Permittee, landscape contractor, and Forestry Inspector. Trees and shrubs shall conform to the current edition of the American Standard for Nursery Stock (ANSI Z60.1).

3. Comply with appropriate City Soil Specification:
    I. Soil Specification FOR TREE PLANTING WHERE EXISTING PAVEMENT OR OTHER IMPERVIOUS SURFACES WERE PREVIOUSLY LOCATED OR WHERE EXISTING GREENSPACE HAS BEEN SEVERELY DEGRADED[1]
        1. Site preparation
            a. Demolish existing impervious surface and remove all existing asphalt, concrete, stone and construction materials to expose subsoil free of debris.
            b. Excavate so that final planting bed will provide quality soil to a depth of forty-eight (48) inches, and to a radius of 10' minimum or to new hard edge of planting bed, whichever is less.
            c. Loosen exposed subsoil below 48" by ripping 18" into the sub grade elevation.
            d. Test to ensure that planting bed drains at a rate of at least 1 inch/per hour.
            e. Install imported soil to fill excavated planting bed. Imported soil shall have a texture of LOAM, per the USDA soil classification system and a chemical composition compatible with healthy tree growth. When installing the soil, it should be installed in lifts or layers of < 12 inches (30 cm), tamping or watering (not both) between lifts to minimize potential settling.
        2. Immediately prior to installation of plant material, the soil must be tested and must have a pH range between 5.5 and 7 and a nutrient content which corresponds to an adequate rating, per current industry standards. Amend soil, if necessary, to achieve the current industry standard.
        3. The Forestry Inspector may require additional soil specifications, based on site conditions.

    II. Soil Specification FOR PLANTING WHERE EXISTING GREEN SPACE HAS NOT BEEN PROTECTED FROM CONSTRUCTION IMPACTS BUT IS NOT SEVERELY DEGRADED.
        1. Site Preparation:
            a. Remove all construction debris and top four to six inches of existing soil.
            b. Test remaining existing soil to verify a pH range between 5.5 and 7, and has a nutrient content which corresponds to an adequate rating, per current industry standards.
            c. Apply four (4) inches of mature compost evenly over the entire planting surface. (4" = 12 Cubic Yard/1,000 s.f.). Provide compost supplier information and specifications to the City Forestry Inspector for approval prior to install
            d. Till the compost into the existing soil to a minimum depth of thirty-six (36) inches using the city's soil profile rebuilding specification.
            e. If soil does not meet nutrient standards, mitigate soil chemistry to meet the chemical parameters.
        2. The Forestry Inspector may require additional soil specifications, based on site conditions.

    III. Soil Specification FOR PLANTING WITHIN EXISTING GREEN SPACE AREAS WHICH HAVE BEEN PROTECTED FROM CONSTRUCTION IMPACTS (One of two options, as determined by Forestry Inspector) Refer to approved City of Rockville Detail A-7

[1] See definitions section #9

1. Test existing soil to verify it has a pH range between 5.5 and 7, and a nutrient content which corresponds to an adequate rating, per current industry standards. If soil does not meet nutrient standards, one of two options will be performed to mitigate the soil:
    a. Option 1- Till Method- Depth of tilling for planting must be at least twenty-four (24) inches:
        i. Apply four (4) inches of mature compost evenly over the entire planting surface (4" = 12 cubic yards/1,000 s.f.). Provide compost supplier information and specifications to the City Forestry Inspector for approval prior to install.
        ii. Till the compost into the existing soil to a minimum depth of twenty-four (24") inches.
    b. Option 2 – Aeration and Vertical Mulching
        i. Using a 2- 3" Auger, drill a series of holes in the soil to a depth of twenty-four (24) inches.
        ii. Begin at the edge of the hole dug for the root ball and continue drilling at one-foot intervals (maximum), in concentric rings around the tree out to ten (10) feet from the tree.
        iii. Each hole must be refilled with mature compost.
    c. The Forestry Inspector may require additional soil specifications, based on site conditions.

IV. Soil testing of the existing soil may be conducted with PRIOR approval from the City's Forestry Inspector to determine the number and location of the samples. The above requirements may be reduced if soil testing shows the following:
1. Soil pH is between 5.5 and 7
2. The top 24" of existing soil contains a minimum of 4-6% organic matter by weight
3. The soil is free of contaminants
4. The soil texture is sandy loam or loam
5. The soil has an infiltration rate not less than 1" per hour
6. The soil does not contain debris or stones greater than one inch
7. The soluble salt content is less than 3 dS/m
8. Consult the University of Maryland Extension website: http://extension.umd.edu/ for a listing of commercial soil testing facilities.

V. Soil preparation is required for street trees planted within the city's rights-of-way and private street trees, if they are part of the approved plan.

4. The depths and grades shown on plan drawings are final grades after settlement and shrinkage of the organic material. The contractor shall install the soil mix at a higher level to anticipate this reduction of volume. All grades are assumed to be 'as measured" to be prior to the addition of any surface compost till layer or mulch or sod.

5. All details of the planting plans regarding plant quality and proper planting will be discussed including but not limited to:
    a. Plant quality.
    b. Proper form for species.
    c. Proper ratio of caliper size/height to container size/root ball size.
    d. Proper pruning cuts if applicable in accordance with current ANSI A300 pruning standards (generally there should be no recent pruning).
    e. No co-dominant stems or multiple trunks (unless approved by FCP or by The Forestry Inspector).
    f. Sound graft union.
    g. Free of girdling roots, or the ability to remove girdling roots without damaging the tree.
    h. Trees shall be healthy, vigorous, insect/disease free, and without cankers/cracks or trunk damage.

6. Proper Installation
    a. Root flare no higher than 3 inches from existing grade.
    b. Exposed root flare (not graft); removing more than several inches of soil to expose the root flare may result in the rejection of the plant material.
    c. Wire baskets/twine/burlap removed from at least the top half of root ball, or as directed by Forestry Inspector.
    d. All burlap or twine removed completely.
    e. No hose and wire; staking and strapping per City planting detail.
    f. Planting Hole a minimum of twice the width of the root ball; could be greater. Planting detail assumes soil has been prepared per the city's specifications (Planting, #3).
    g. Mulched properly, per City planting detail.
    h. Wildlife protection installed, if required; type approved by the Forestry Inspector.

7. Trees not complying with the above requirements may be rejected at the discretion of the City Forestry Inspector.

8. Tree planting will generally not be permitted between the dates of June 1 and September 1, or when the ground is frozen.

9. DEFINITIONS
    a. Topsoil
        i. Soil can be considered topsoil if it originates from an A horizon of a natural soil or is a mineral soil with 4-6%% organic matter content, and a NRCS textural class similar to pre-development conditions A horizon soils for the site, or as specified by the City Forestry Division. The city Forestry Division will specify a LOAM texture in the absence of native conditions listed above. Blended soils shall not be used unless specified by the City Forestry Division. In addition, topsoil shall:
            1. Be friable and well drained
            2. Have a pH between 5.5-7.
            3. Have an organic matter content between 4-6%.
            4. Have low salinity as indicated by a soluble salt content which is less than 3 dS/m
            5. Be free of debris, stone, gravel, trash, large sticks, heavy metals, and other deleterious contaminants, (if screening is used to remove debris, screen size must be ¾ inch or larger).
            6. Have a nutrient profile such that it has an adequate rating, per current industry standards.
            7. Be free of noxious weed seeds

    b. Compost
        i. Compost shall be composed of leaves, yard waste, or food waste. Biosolid-based composts shall not be used. A compost sample with analysis shall be submitted for approval to the City Forestry Division before application.
        ii. Stability refers to the rate of biological breakdown, measured by carbon dioxide release. Maturity refers to completeness of the aerobic composting process and suitability (lack of plant toxicity) as a plant growth media, often measured by ammonia release and by plant growth tests. Compost manufacturers that subscribe to the US Composting Council's testing program may document stability as compost testing 7 or below in accordance with TMECC 05.08-B, "Carbon Dioxide Evolution Rate". Maturity (suitability for plant growth) may be documented as compost testing greater than 80% in accordance with TMECC 05.05-A, "Germination and Vigor". Compost is considered mature and stable if it tests at 6.0 or higher on the Solvita Compost Maturity Index Rating, which is a combination of Carbon Dioxide and Ammonia Maturity Tests (test information and equipment available at www.solvita.com).
        iii. Compost shall also be:
            1. Free of weed seeds.
            2. Free of heavy metals or other deleterious contaminants.
            3. Have a soluble salt content which is less than 3 dS/m.

    c. Severely Degraded Soil
        i. Soil shall be considered severely degraded if grade was lowered or raised more than 14 inches OR soil was compacted in lifts regardless of the final grade OR was used as a staging area for construction materials, equipment or processes.