

Chapter 26

Street Trees

Street trees are required along most new roads and for many re-development projects. This chapter sets standards for their installation.

26.1 Purpose - Applicability

26.1.1 What is the purpose of these standards? Street trees provide urban forestry benefits including improved air quality, reduced energy costs due to shading and cooling, traffic calming, reduced stormwater runoff and soil erosion, enhanced wildlife habitat, and increased property values. Beyond promoting these benefits, these standards will:

- increase and maintain species diversity in Williston's street tree population;
- ensure that the trees selected are appropriate to site conditions, taking into account soil type, drainage, rooting space, salt exposure, and the location of utilities;
- ensure that the installation of street trees is done in a manner that ensures their long-term health;
- provide for the maintenance of street trees following their installation;
- protect existing street trees as development occurs; and
- maintain and enhance the appearance and character of neighborhoods and the community.

26.1.2 Must street trees be provided in my project? Probably. These standards apply to all development for which a discretionary permit is required. Street trees are required along both sides of new roads, public or private. They are also required along the existing road frontage of re-development projects. There are two possible exceptions to this requirement.

26.1.2.1 Existing Woods. The DRB may waive this chapter's requirement for street trees where a road passes through existing woods and for open space developments in which formal planting plans are inappropriate.

26.1.2.2 Scenic Vistas. The DRB may also, with the advice of the Conservation Commission, waive the requirement for street trees to preserve a scenic vista.

26.1.3 How do these requirements interact with other requirements of this bylaw? Street tree plantings may be considered a Type IV Buffer as described in WDB 23.3 and may, therefore, fulfill a portion of a development's overall landscaping requirements. Street trees must be shown on the landscaping plan required in WDB 23.1.3 and on the runoff and erosion control plans required by WDB 29.4.1.

26.2 Planting Strip Design

26.2.1 Are there standards for design of the planting strip in which trees are to be installed? Yes. The following standards must be met when planning for installation of new street trees. Sample cross sections of planting strips are provided in the *Public Works Standards*.

26.2.1.1 Location of Planting Strip. Along public roads, the planting strip will be in the right-of-way, as shown in the *Public Works Standards*. Along private roads, the planting strip shall parallel the road. The DRB, with the advice of the DPW, may permit or require an exception to this standard where the terrain, the location of utilities, or other physical constraints necessitate a separation of the road and the planting strip.

26.2.1.2 Planting Strip Width/Depth. Street trees shall be planted in a planting strip that is at least eight (8) feet in width and has at least three (3) feet of un-compacted soil depth. Planting strips shall be continuous wherever possible. Tree pits or wells are allowed only in areas of intensive commercial and mixed use development where the *Town Plan* encourages wide sidewalks or where there is no reasonable alternative. Standards for the use of tree pits appear in WDB 26.3.

Vermont Tree Selection Guide is a publication of the Vermont Urban and Community Forestry Program that provides town guidance in selecting appropriate street and landscape trees. Copies of the guide can be reviewed at Williston Planning.

26.2.1.3 Spacing: Residential Developments. In residential developments, street trees are to be planted so that there is at least one tree on the frontage of each lot, or at least one tree every 40 feet along the road, whichever results in the greater number of trees.

26.2.1.4 Spacing: Other Developments. In nonresidential developments, street trees must be planted at least every 40 feet along the road.

26.2.1.5 Distance from Curb. No tree may be planted closer to any curb or sidewalk than the following: small trees – 3 feet; medium trees – 4 feet; large trees – 5 feet (tree species are identified as small, medium or large in *Vermont Tree Selection Guide*).

26.2.1.6 Utilities. No street tree shall be planted under or within 20 lateral feet of any overhead utility wire, or over or within eight (8) lateral feet of any underground water line, sewer line, transmission line, or other utility. No trees shall be planted without prior notification of Dig Safe.

26.2.1.7 Corners and Intersections. No trees shall be planted within the clear vision triangles required by this bylaw.

26.3 Tree Pit Design

26.3.1 Are there standards for design of the tree pits? Yes. As provided by WDB 26.2, tree pits or wells may be used in areas of intensive commercial or mixed use development or where a continuous planting strip is not feasible. Tree pits or wells can be placed at grade or incorporated into raised planters. See the *Public Works Standards* for typical installations.

26.3.2 How much soil must be provided in tree pits or wells? Individual trees must be planted in at least the minimum volume of un-compacted soil called for in *Recommended Trees for Vermont Communities*. Where possible, individual tree pits or wells must also be connected to a continuous channel of structural soil under the adjoining pavement.

26.3.3 What is structural soil? Are there any exceptions to its use? Structural soil is designed to provide adequate support for paved surfaces like parking lots and sidewalks, while also serving as a suitable medium, for tree growth and health. Specifications for structural soil are included in the *Public Works Standards*. An exception to the requirement for the use of structural soils may be permitted where all of the surrounding paved surfaces are porous.

Structural Soils. For more information, see the structural Soil specifications on the Cornell University web site (<http://www.hort.cornell.edu/departement/faculty/bassuk/uhi/>).

26.3.4 Are there standards for tree grates? Yes. Where tree pits or wells are placed at grade, tree grates shall be provided as specified in the *Public Works Standards*. Tree grates must be installed flush with the adjoining surface so as to not limit accessibility or create a safety hazard.

26.4 Street Tree Selection

26.4.1 Are there requirements for tree selection in terms of species, size, quality and diversity?

Yes, the following standards must be met when selecting street trees for installation.

26.4.1.1 Permitted Species. Street trees will ordinarily be hardwood shade trees, selected from those listed in *Recommended Trees for Vermont Communities*. The DRB may approve smaller ornamental trees for use near intersections or at other locations where a large tree is inappropriate. Coniferous trees should be avoided, but may be permitted by the DRB where they support a particular design theme or contribute to required buffering or screening.

26.4.1.2 Prohibited Species. The following tree species are not permitted as street trees due to their invasive tendencies: Black Locust (*Robinia pseudoacacia*), Amur Maple (*Acer ginnala*), Norway Maple (*Acer platanoides*), Tree of Heaven (*Ailanthus altissima*) and Amur Corktree (*Phellodendron amurense*). The use of Green Ash (*Fraxinus pennsylvanica*) is not permitted without an exception from the DRB due to an existing overabundance of this species in Williston.

26.4.1.3 Species Selection. The following factors should be taken into consideration when selecting appropriate tree species for individual sites: available soil volume or rooting space; exposure to salt; soil type, pH, and drainage; and the distance to intersections and utilities.

26.4.1.4 Species Diversity. If more than 35 street trees are required, no more than 15% shall be from the same genus. If fewer than 35 street trees are required, no more than 5 trees shall be of the same genus.

26.4.1.5 Size of Stock. Street trees shall be of the following minimum sizes at the time of planting: large trees- 2 ½" caliper; medium and small trees- 2" caliper.

26.4.1.6 Quality of Stock. All trees to be planted shall be well rooted, balled and burlapped or containerized nursery-grown stock, free of injury, harmful insects, and disease. All trees to be planted shall conform to the ANSI Z60.1 *American Standard for Nursery Stock*.

26.5 Street Tree Installation and Maintenance

26.5.1 Are there requirements for the installation of street trees? Yes. Street trees shall be planted in accordance with the ANSI A300 *Best Management Practices for Tree Planting*. Planting specifications are also provided in the *Public Works Standards*.

26.5.1.1 Supervision. If more than 10 street trees are required in a development, installation must be supervised by a Certified Arborist. The Certified Arborist will provide a report, including a completed *Street Tree Post-Construction Checklist*, to Williston Planning verifying that trees have been installed correctly and as specified on the approved landscaping plan.

26.5.1.2 Inspection. Installed street trees are subject to the inspection requirements of 7.1.7.

26.5.2 Are there landscaping maintenance requirements? Yes. Street trees are a ‘required improvement,’ as defined in Chapter 7 of this bylaw, subject to all requirements that chapter imposes. Street trees must be maintained (including irrigation) by the developer for a period of three years following their installation. During this three-year period, any trees determined by the DPW to be dead, dying, or in poor health shall be replaced by the applicant/owner at his/her expense.

26.6 Protection of Existing Street Trees

26.6.1 Must I retain existing street trees? Yes. Existing street trees shall be retained wherever possible.

26.6.1.1 Protection during Construction. Existing street trees must be protected from damage during construction, as required by the *Public Works Standards*. The landscaping plan required by WDB 23.1.3 must show all proposed tree protection measures and include a schedule showing that these measures will be put into place before other construction activities begin. This information must also be shown on a runoff and erosion control plan, where one is required by WDB 29.4.1.

26.6.1.2 Documentation. The condition of existing street trees shall be documented with photographs before an administrative permit is approved and construction begins. The number of photographs the applicant must provide will be determined by the Administrator.

26.6.2 Can I transplant an existing street tree to a new location? Existing street trees may be transplanted to new locations if they cannot be retained in their current location(s). Transplantation of existing street trees shall be carried out when the trees are dormant (early spring or fall) and must be supervised by a Certified Arborist. Transplanted street trees are subject to the same two-year maintenance period described for new street trees in WDB 26.5.2.