**Trees for Schools**

**Detailed Planting Plan Guidelines**

*These Guidelines are intended to be used as a companion guide for completing the Detailed Planting Plan. To complete the Detailed Plan, follow these guidelines to develop the plan, enter the content in the format provided in the* [*Detailed Planting Plan Template*](https://www.sustainablejerseyschools.com/fileadmin/media/Grants_and_Resources/Trees_for_Schools/Phase_2/T4S_Detailed_Planting_Plan_Template.docx)*, and upload it and the required attachments to the grants portal.*

The preliminary planting plan that was submitted as a component of the Trees for Schools grant proposal for this project should serve as the point of departure for developing the detailed planting plan. Completing the detailed plan will provide you, the grantee, the opportunity to make adjustments to the preliminary plan based on input feedback from Trees for Schools staff that was emailed to the project contacts *(email* [*mcdermom@tcnj.edu*](mailto:mcdermom@tcnj.edu) *if you can’t find this!)*, your consultant (if any), and more focused deliberation of the project team and stakeholders. See [Resources](https://bit.ly/TreesForSchoolsFAQ) for a partial listing of the many references providing useful technical guidance for tree planting projects.

The detailed planting plan must be submitted on the grants portal by **November 22**. Trees for Schools staff will review, approve, or request revisions until the final version can be approved. This Plan must be submitted at the same time as (i) the Maintenance Plan, (ii) a Detailed Budget that is consistent with both Plans, and (iii) the signed Transmittal Form. Once all the documents have been approved, then, and only then, the second project payment will be issued.

The following sections follow the outline of the elements of a detailed planting plan.

1. **Grantee Information**

Form a project team, expanding where appropriate beyond the group that worked on the grant application. List key responsible members in the plan, including:

* Primary Contact for grant reporting and communications.

*The primary contact must be a college, university, or school district employee. This person is responsible for keeping all the members of the project team informed.*

* + Project Manager

*The project management contact should be whoever is taking the lead on managing the project and can answer project-related questions. (This can be the same person as the primary contact or may be the consultant).*

* + Professional consultant (if any)
  + Fiscal Contact

*The fiscal contact must be a person authorized to manage official funds.*

The project team should also include key members of staff with responsibilities and experience related to the campus landscape, such as a landscape architect, buildings and grounds/facilities staff or contractors. It is critical that those responsible for tree maintenance be consulted and kept informed. Additional members might include faculty members in relevant fields, student environmental club leaders and faculty liaisons, or community group representatives. School districts are also highly encouraged to engage external partners, such as municipal shade tree commissions or committees; Environmental Commissions and/or green teams; tree stewardship, conservation, watershed, or other non-profit organizations; and colleges or universities. (Note: applicants may want to consider bringing qualified non-profit partners onto the project as consultants.)

* It is highly recommended that the detailed planting and maintenance plan be by prepared by a New Jersey Certified/Approved Forester, licensed Landscape Architect, Licensed Tree Expert, Certified Arborist, or non-profit organizational partner with qualified staff (see [Resources](https://bit.ly/TreesForSchoolsFAQ) for some listings). If a grantee has retained a professional consultant for the project, preparation of this detailed planting plan is an eligible grant expenditure that can utilize up to 10% of the approved budget.

1. **Project Sites: Location**

**Site Information**

Provide the information requested (see plan [template](https://www.sustainablejerseyschools.com/fileadmin/media/Grants_and_Resources/Trees_for_Schools/Phase_2/T4S_Detailed_Planting_Plan_Template.docx)) for each site, i.e., the school, college campus, or other property (e.g., municipal street or park, off-campus facility) where trees will be planted.

**Project location map**

Provide a map that represents the clearly labeled project sites on a recognizable base map (e.g., street map, tax map, USGS map, Google maps satellite view image).

1. **Tree selection & location**

To complete this section, prepare (i) a **planting summary** spreadsheet [template](https://www.sustainablejerseyschools.com/fileadmin/media/Grants_and_Resources/Trees_for_Schools/Phase_2/T4S_Detailled_Planting_Plan_Summary_Template.xlsx) that lists the quantities of each tree species that will be planted and (ii) **site plans** that shows the location and species of each tree that will be planted at each site.

A **site plan** is a scale drawing or map that indicates where each tree will be planted and identifies each location/tree by species. It should also show site improvements or installations that are part of this project (e.g., tree pits). Professionally prepared plans are desirable, but not necessary. A site map must be prepared for each site in your project. These detailed plans will provide essential guidance to contractors and staff when the time comes for site preparation and planting.

The planting summary provides information about the selection of tree species for your project.

There are many considerations that should inform the decision on where trees go (“right place”) and the selection of tree species and varieties that will thrive in that location (“right tree”). Please discuss this with your consultant or team expert and consult the T4S workshop presentation and the many good references on the topic (see [Resources](https://bit.ly/TreesForSchoolsFAQ)). Some key factors that should enter into your decisions include:

* Site constraints: distance from buildings, pavement, other trees (etc.); potential conflicts above (utility wires) or below ground (water, sewer, or other infrastructure); soil conditions; salt exposure
  + Be sure to consider the projected size of the tree *at maturity.*
* Primary purposes for planting trees at these locations, such as: shade, energy conservation, educational value, aesthetics, screening
  + A note on energy conservation: Large deciduous trees planted on the southeast, southwest, and west of buildings save energy by providing cooling shade in the summer, while letting warming sunlight get through in the winter. Evergreens planted to the north block cold winds in winter.
* Biodiversity, carbon sequestration, and ecological value
  + ***larger*** trees and ***native*** species provide the most benefits
  + planting a ***diversity*** of species provides greater benefit and leads to a landscape that is more resilient (to pest and disease infestations, etc.)
* Effects of climate change: aim to select species/varieties tolerant of more heat and uneven and more intense rainfall in the future, for example those with a more southerly native range.
* Prevalent and projected pest and disease infestations: e.g., avoid ash, beech, species in the [red oak group](https://www.catmanoutdoors.com/southeastern-oak-trees-1).
* Preferences of stakeholders (the administration, facilities department, faculty, students, and community members)
* Propensity of pollen to trigger allergies (particularly of concern for children with asthma)

Following these criteria is mandatory:

* **T4S program rules for species choice:**
  + Only *tree* species are allowed. No shrubs or herbaceous plants.
  + No invasive species may be planted; do not plant any species or cultivated variety (cultivar) that is listed on the [Strike Team Do Not Plant list](https://www.fohvos.info/wp-content/uploads/2022/05/2022Common_DoNotPlant.pdf).

The planting summary worksheet has several tab. The first tab is where you list information about all the tree species you will plant across all the sites. You should also list a few alternate species choices, in case any of your desired selections will not be available at the time your order is placed. Provide the following information for each species:

* Common/horticultural name (including cultivar/variety name if applicable)
* scientific name
* quantity to be planted (across all the project sites),
* the type of planting material, and
* size of planting material to be used.

The type of planting material refers to the way the roots are treated: balled and burlapped (B&B), container-grown, or bareroot. Use the type of planting material most suited to site conditions within the scope allowable under the project rules:

* **T4S program rules for planting material:**
  + The minimum size is 1.5” caliper measurement and the maximum size is 3” caliper.
  + *Justification must be provided for planting any trees that are larger or smaller.* E.g., 15 gallon container trees can be a good choice if students or other volunteers will be doing the planting *and* the trees will be surrounded by (a) protective barrier(s).

1. **Site preparation**

This section describes the different activities needed to prepare the planting areas so that they will support healthy tree establishment and growth, while enabling efficient ongoing maintenance. The narrative provided should correspond to and support the items listed under the site preparation heading in the final detailed budget. For each activity, state who will be doing the work, staff or contractor (name, if available), and the specifications (such as would be provided to a contractor) or methods to be employed.

* Number and location of trees that will be removed at project expense to prepare sites for the project-funded trees that will be planted in the vicinity

*\*\*Justification for tree removal must be provided. Removals will be approved only if the trees are dead, diseased, or hazardous,* and *their removal is necessary to for the healthy growth of the trees to be planted by this project. This grant will not pay for the removal of healthy trees.*

* Stump grinding to prepare sites for trees that will be planted by the project
* Soil testing
* Soil improvements, such as soil amendments or structural soil
* Removal of impervious surfaces, such as concrete (provide approximate surface area)
* Establishment of raised tree beds or tree pits (provide numbers and dimensions)
* Fencing may be approved if it is cost effective. *Provide justification, comparing this cost to the cost of alternative measures, such as deer guards.* (Note: this information should also be included in the Budget Narrative).
* Installation of certain types of irrigation may be approved, if it is cost effective. One example might be extending the water supply to put a faucet within range of the planting area. Overhead irrigation is generally not effective for trees; instead, aim to deliver a slow soak to the base of the trunk by hose, gator bag or other means. *Provide justification, comparing this cost to the cost of alternative measures, such as contracting with a watering service.* (Note: this information should also be included in the Budget Narrative).

1. **Tree planting**

This section covers how the project trees will be planted. There are several possible arrangements that can be mad for purchasing and installation (planting) labor:

* The planting material (trees) may be purchased directly from nurseries for delivery or pickup.
* Trees purchased from nurseries by the grantee may be planted by a contractor or planting may be performed by grantee staff, hourly workers, and/or volunteers.
* The cost of the trees may be bundled with cost of installation labor in a planting contract. The contractor acquires the trees from nurseries, transports, and plants them. Typically, a planting contract provides a one-year survival guarantee.

For each of the following steps, briefly describe the activity and who will be undertaking it:

* 1. how trees will be selected, inspected, and transported
  2. how the site will be prepared prior to planting
  3. how the trees will be maintained after delivery and prior to planting
  4. the planting method
  5. the immediate post-planting care, including watering, mulching, and pruning.

Tree Planting Guidelines:

* Specifications for tree planting incorporated in contracts and all work performed by staff or contractors should conform to accepted horticultural practices and meet or exceed the industry standards (ANSI A300).
* All landscape nursery stock should conform to the standard specifications of the American Standard for Nursery Stock (ANSI Z60.1) sponsored by the American Association of Nurserymen, Inc.
* All trees should be grown under climatic conditions similar to the project site for a period of not less than two years immediately prior to this project.
* Plants should have the habit of growth that is normal for the species or cultivar and should be sound, healthy, vigorous, free from insects, plant diseases and injuries or other damage.
* Bare root trees should show full root growth in all directions out from the main stem.
* All poor and circling roots should be pruned before planting.
* The grantee should reserve the right to inspect all plant material at its point of origin. Acceptance at the nursery in which the plant is growing, prior to transplanting, should not preclude rejection at the site for just cause.
* Trees to be planted should be free of damage as the result of handling or transportation.
* The plant material to be delivered should be covered with a tarp, protected from weather, and be adequately packed to avoid damage during loading and shipment.
* *No trees should be planted until they have been inspected and approved on the site* by the grantee’s professional or qualified staff.

1. **Project timeline and reporting**

Provide a project timeline either narratively or via a diagram that clearly illustrates when project tasks are going to be carried out and project milestones are going to be met from January 2024 through the planting period. (The remainder of the project period will be covered by the Maintenance Plan).

Planting should take place in Spring 2024 (March-May). If completion and approval of the planting plan, the contracting process, or other contingency would otherwise delay the planting date past late May, approval may be given to schedule planting for Fall 2024.

The timeline must include the completion of the following tasks:

1. Source trees.
2. Set up arrangements for site preparation and tree planting labor.
   1. Issue call for bids/RFP (request for proposals) as appropriate.
   2. Award contract(s) as appropriate.
3. Complete site preparation.
4. Mark where trees are to be planted.
5. Call for utilities to “markout” conflicts; move planting sites as needed.
6. Plant, mulch, and water trees.
7. Prepare and submit post-planting report (due July 31, 2024).
8. **Plan Approval**

This [Detailed Planting Plan](https://www.sustainablejerseyschools.com/fileadmin/media/Grants_and_Resources/Trees_for_Schools/Phase_2/T4S_Detailed_Planting_Plan_Template.docx), along with the [Maintenance Plan](https://www.sustainablejerseyschools.com/fileadmin/media/Grants_and_Resources/Trees_for_Schools/Phase_2/T4S_Maintenance_Plan_Template.docx) and [Budget](https://www.sustainablejerseyschools.com/fileadmin/media/Grants_and_Resources/Trees_for_Schools/Phase_2/T4S_Detailed_Budget_Template.xlsx), must be submitted together with a signed [Transmittal Form](https://www.sustainablejerseyschools.com/fileadmin/media/Grants_and_Resources/Trees_for_Schools/Phase_2/T4S_Transmittal_Form.pdf). This signatures on this form will serve as a documentation of the fact that the primary parties responsible for successfully completing the grant project have reviewed and approved the detailed planting plan, maintenance plan, and detailed budget and thereby commit to implement and support the project as described.

The detailed plan must be signed by the appropriate authority(ies). For a school district the authorized signatory could be the district business administrator and/or superintendent. For a college or university, authorized signatories might include administrative authorities, such as a dean, grants office or equivalent unit with fiscal authority.

Upon approval of the detailed planting plan, maintenance plan, and final budget and receipt of the corresponding signed Transmittal form, the grant recipient is eligible to invoice the Sustainability Institute at The College of New Jersey for the second progress payment of up to 40% of the final approved budget.