Guide Training

Watertown Miyawaki Forest Project

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Note: Details may change. Check this page for the latest version. (Oct 21)

If you haven't already, Select a Time Slot in this Form – thanks!

We're asking Guides to sign up for 2-hour spot(s). (download this as a PDF)

What is a Miyawaki Forest?

Using the "Miyawaki Method" to mimic the natural forest conditions of a mature forest, a community plants native trees and shrubs that then grow quickly and soon create a self-sustaining micro-ecosystem. This Tiny Forest Handbook explains the Method well.

Our Watertown Miyawaki Forest Project has completed the first step, creating a native tree list suitable for this location, relying on advice from tree experts in our area. This week we're completing the next two steps (October 20 to 26):

☑ 1. **Intense soil restoration,** loosening the compacted ground down to 30 inches, removing some of the lifeless dirt, and mixing in compost. Thanks to the DPW Forestry Crew!



☐ 2. **Dense plantation** of 50 tree and shrub species on Oct 26 – that's what this training is about!

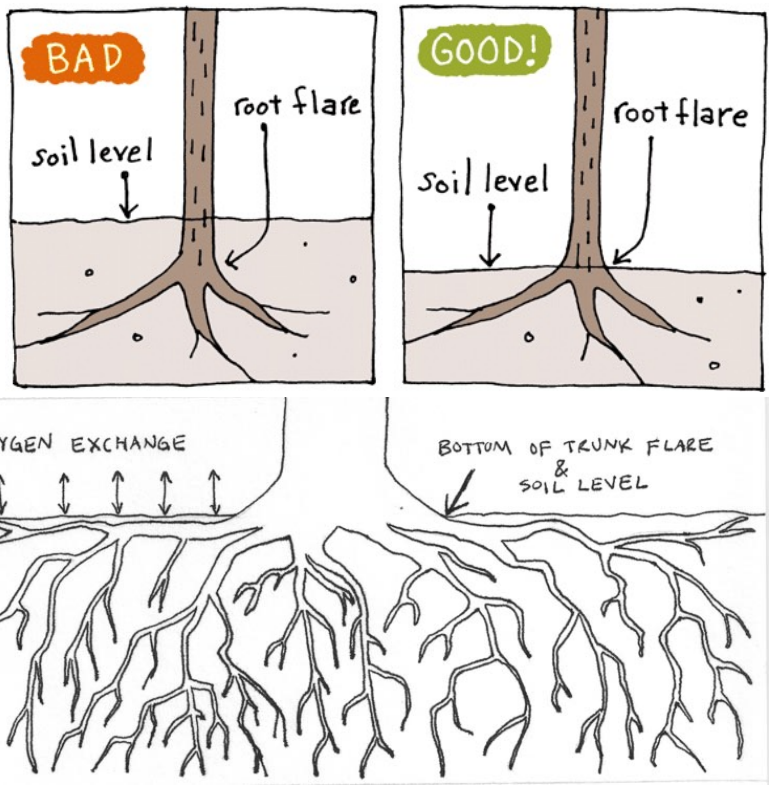
The Most Important Guidance: Root Flare

Guides will help make a wonderful Planting Day in *many* ways, but this is THE MOST CRITICAL CONTRIBUTION Guides will make to the health of the forest.

Most Planters won't know anything about root flare. Trees planted too deep or not deep enough grow more slowly and die more quickly. Root flare is the clue.

The **root flare** is where the tree trunk meets the roots and “flares” out. It's the point of contact with the soil line that divides the tree into two zones: root and trunk.

Don’t bury the root flare.
(*1st pic source*, *2nd pic source*)



Trees planted too deeply are susceptible to trunk rot and primary root suffocation.

Two steps will help get the root flare at the right level.

1. Determine the right hole depth: dig the hole and hold the plant in the hole using a "leveling stick" across the ground to see that the flare is at ground level. That's the right depth.

2. Make sure the soil at the bottom of the hole is firm: when the right depth is determined, firmly press the very bottom of the hole. That will probably make the hole deeper, so add soil to make it the right height, and firmly press it again. Repeat until the hole is the right depth and the bottom of the hole is the right firmness. Otherwise, rains will compact the soil and the plant will sink, burying the root flare.

More on those steps later.

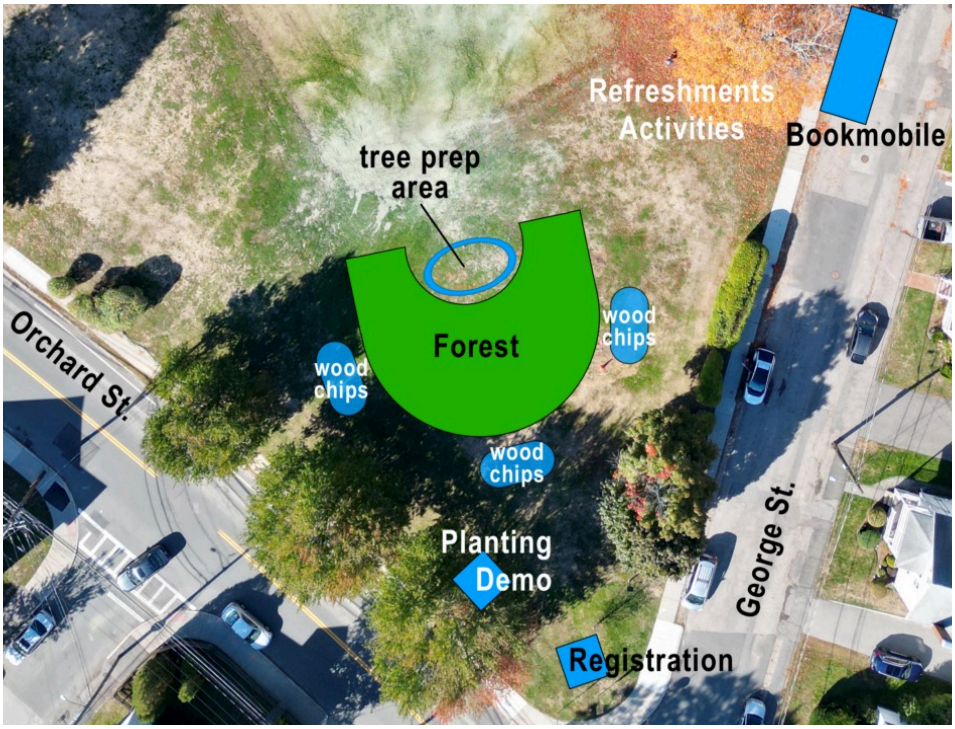
What do Guides do? Guides help out in the three phases of the Planting Day. Guides select one or more 2-hour spot(s) between 7am and 5pm.

Set Up Crew	Planting Guides	Pack Up Crew
7 to 10 am	*10 am to 3 pm*	*3 to 5 pm*
• Set up tents, tables, and chairs. • Arrange materials at tables for Registration, Refreshments, etc. • Help remove fence from Tree Prep area. • Move Tree Kits from Tree Prep to Planting Spots. • Place Planting Tools in Selected Spots • Hang or place signs.	• Guide volunteers to Planting Spots and oversee proper planting. • Maintain planting area by removing excess soil, collecting empty buckets, moving tools. • Run errands as needed for Registration / Refreshments tents.	• Collect tools, pots, and extra soil from Planting Spots. • Pack up materials at Registration, Refreshments, etc. • Remove signs. • Take down tents and tables. • Collect chairs, tools, and pots. • Help as needed in completing the fence. • Help with watering as needed.

The Forest Area

The Forest is at the corner of Orchard and George Streets, in the JR Lowell Elementary schoolyard.

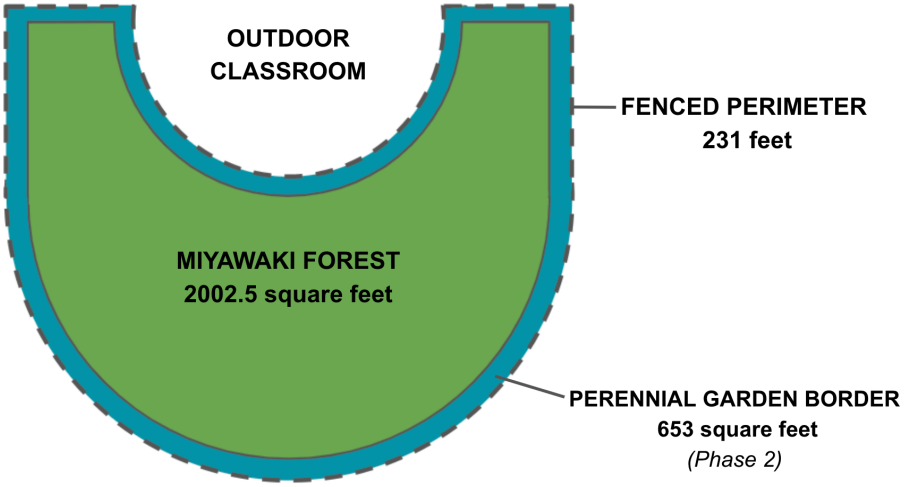
The **Planting Area** is ~2,000 square feet and will be enclosed by a fence after planting is complete. The forest design has an immersive space for an outdoor classroom.





This image on the left shows an outdoor classroom in the Netherlands, where each "Tiny Forest" is adopted by a school, and students are "Forest Rangers."

The **Outdoor Classroom** will be temporarily fenced in on Wednesday to create a Tree Prep area where we'll hold the trees being delivered Thursday and Friday until planting. Rabbits, keep out.

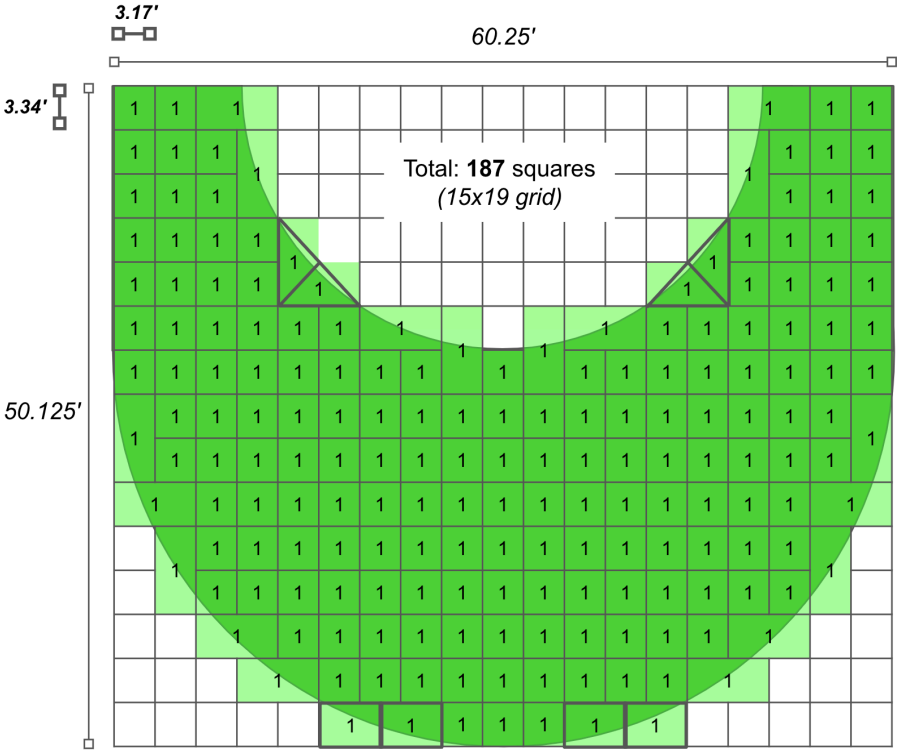


Saturday morning, the temporary fencing will be removed, Tree Kits will be assembled, and the Setup Crew will move the Kits to assigned spots in the Forest, ready for Planters.

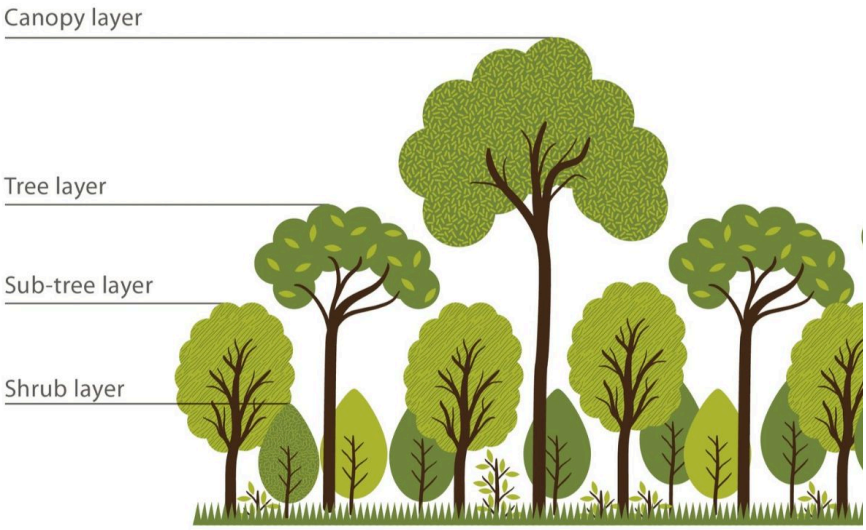
Surrounding the Forest is a 3' wide border that will be marked and used as a walking path. Set Up Crew will spread more wood chip mulch along the path so it's ~3" deep.

Planting Spots

Wednesday the planting area is marked out with green and pink plastic ribbon, making 187 square-meter Planting Spots. *Lesson Learned: Use braided mason cord rather than plastic ribbon, which must be removed before mulching the forest. Twine disintegrates.*



- Numbered Flag on each Spot (1 to 187). Tree Kits have corresponding numbers, and each Kit is placed in its assigned Spot during Set Up. Flags marked with "C" are Child Zone spots, reserved for adults with children 3-7 years old.
- Every Spot already has a black bucket with compost tea water in it, and a cup for pouring water on each plant as soon as it's planted.
- Pink ribbon denotes walking paths along every other row (East-West). Guides use the walking paths to move Planters to their assigned Planting Spots.



Tree Kits

- During Set Up, Core Team members assemble plants into numbered Tree Kits
    - with one plant from each of the four forest layers (see image above)
    - with mostly potted plants but usually a bare root plant, as well
- Set Up Crew moves the numbered Tree Kits to the matching Planting Spots.
- Set Up Crew also equips *Selected* Spots with Planting Tools:
    - 2 trowels, 2 pairs of gloves, ~2 sticks for leveling & measuring

Duff

Core Team members have been collecting "duff" – organic matter from the ground under mature trees, teaming with the living microbiome of healthy, tree-growing soil.

Planting Guides will carry a satchel of duff and a 1/4 cup measuring scoop. When the Planting Team has dug the plant hole and the root flare level looks right, the Guide places 1/4 cup of duff at the bottom of the hole as a boost to each root system.

Note: Consider a BigFoot granular mycorrhizal product.

Note: the next page, Picture the Day, outlines our hoped-for organization and coordination. Soil preparation delays left us a few hours to set up what we'd planned to have a week for. Maybe next time.

Picture the Day

You arrive ...

1. Register and sign the Waiver.
2. Get a yellow bandana and tie it around your arm/neck/hat (or wherever suits you) – this helps Volunteers know that you're a Guide. Return the bandana to the Registration table when you're finished.
3. Get an orientation to what's where, especially the
    a. Master List of Tasks that Need Doing
    b. Master Map of Planting Spots
4. Planting Guides get your satchel of duff and a laminated info sheet with checklist, Planting Spots map, and general info.

Set Up / Pack Up Crews ...

- Look at the Master List of Tasks that Need Doing (at Registration table) and
    - put your initials by a Task,
    - find the Task Director at the task area,
    - and Do. (Thank you!)
- Repeat.

Planting Guides ...

1. Look at the Master Map of Planting Spots (at Demo tent) and see where you'll be guiding Planters
2. Assist in the "How To Plant" demonstration if needed.
3. Choose 2 Planting Teams of 2 people in each, or
   up to 3 people in each for Child Zone: 1 or 2 adults with 1 child
4. Lead your 2 Teams to the next Planting Spot and help them remember the steps:
    a. Space out the trees using sticks (19.7" apart)
    b. Clear mulch aside and dig a hole
    c. Check hole depth using leveling stick to keep flare at ground level
5. Guide: check that root flare is at the right level and the bottom of the hole is firm
6. Guide: place 1/4 cup duff at the bottom of the hole
7. 1 Planter holds tree straight and 1 Planter replaces soil around tree
8. Repeat from step 4. until all 4 trees are planted.
9. Move Tree Tools (trowels, gloves, sticks) to next Planting Spot.
10. When Planters are done with their time slot, direct them to Exit Poll forms.