

To: Durham, NH Planning Board
From: John Parry, 5 Denbow Rd., Durham, NH
Date: June 8, 2020
Subject: **COMMENTS ON MILL PLAZA LANDSCAPE PLAN**

I want to pass on the following comments/suggestions on the landscape plan for Mill Plaza. My comments primarily relate to the, planning, planting, maintenance and protection of trees. Please note that it is difficult to review these extensive plans on a small computer screen, so I apologize if I missed some detail.

Thanks for your consideration. – John Parry

Protection of Forested Areas on this Parcel

It appears most of the wooded acreage on the north side of the parcel will be removed. The developed urban area in Durham has very little forested area remaining. Saving forest cover in urban areas is a holistic way to provide environmental benefits such as improved air and water quality and energy conservation in nearby buildings. Though small, this small urban forest is in a prominent location that provides a valuable visual buffer between the downtown commercial and residential areas. Look at this area on an aerial photo, or on the ground from different viewpoints and you can appreciate how the loss of this woodland will have a negative effect on aesthetics. That woodland is also on a steep slope and the trees and other vegetation are important in protecting soil and reducing stormwater flow. **A significant amount of this forested area should be protected.**

Tree Size and Species

There are many small ornamentals on the planting list (80 ornamentals are listed out of 140 trees). Larger trees provide more benefits and better aesthetics. **Wherever space allows, or can be created, plant trees that will have a larger size at maturity.** ID and plant more species that have a larger mature ht. (35 – 60 feet). Select species that 1) will have a significant mature size (not just short ornamentals), 2) can tolerate the site (parking lots are hotter and dryer than surrounding areas), and 3) add diversity to the Town's tree population (for example, too many pear trees have been planted in past development).

Create Space for Large Trees

In some of the recent development in the downtown area, building size was maximized, and space left for greenspace and landscaping was minimized. In many places, trees were planted in spaces which they will quickly outgrow, leading to conflicts with buildings, sidewalks, utilities, signs, etc. **Adjust building plans to create space for large trees.** Require more space be left for trees, landscape, greenspace and privacy, and create visual, vegetated buffers between properties. Plans for buildings B & C especially don't seem to show enough space for large trees.

Design of Planting Islands

Planting areas in the parking lot need to be well designed to support large, healthy trees. The trees currently planted in the Mill Plaza parking lot and on Main Street are a bad examples of this; these trees grow very little and have very poor health. They are planted in small holes cut in the pavement/ concrete, surrounded by compacted soil. There is not enough soil volume to support larger, healthy trees. Poor drainage is also likely a problem. **Is there a good design provided for the new planting islands in Mill**

Plaza? See link below for info on tree planting in urban, hardscape areas;

[https://www.pubs.ext.vt.edu/430/430-028/430-](https://www.pubs.ext.vt.edu/430/430-028/430-028.html#:~:text=Landscaping%20in%20and%20around%20parking,by%20providing%20heat%2Dreducing%20shade.)

[028.html#:~:text=Landscaping%20in%20and%20around%20parking,by%20providing%20heat%2Dreducing%20shade.](https://www.pubs.ext.vt.edu/430/430-028/430-028.html#:~:text=Landscaping%20in%20and%20around%20parking,by%20providing%20heat%2Dreducing%20shade.)

To grow healthy trees, the rooting area needs to have adequate rooting depth and width. Ideally these areas should have a **rooting depth of 2 ½ feet or more.** The plan calls for adding 1 ' of soil, but the existing soil underneath may be compacted and undesirable. The existing soil should be tilled to a depth of at least 1 ½ feet and an amended soil added, before 1 ' of topsoil is added. The Island width is 10 feet. If most of that width is used as tree rooting space there should be enough rooting space to grow larger size trees (instead of just small ornamentals).

Nursery Stock and Size

I feel trees 1.0 – 1.5 inch caliper are small for a public use area. They are more easily damaged or vandalized. I suggest **1 ¾ – 2.5 inches caliper trees should be planted.** I did not see the specific type of nursery stock listed - are these B&B or container trees?

Planting Specifications

B & B trees often have wire baskets around the soil balls. In planting, **remove the wire basket (if present) or at least the top half of the wire basket during planting.**

Existing Trees to be Protected

The Town Tree Warden, or other Town Rep. should help ID trees to be saved. In identifying the rooting area to be protected, using the drip line is a good rule of thumb. **I feel the statement, “8 foot minimum from the trunk” will not provide adequate protection for trees larger than 8” diameter.** If construction will be within 8 feet (of trees 8” or greater in diameter), additional protective measures should be taken as prescribed by the Tree Warden or Landscape Architect. I can provide detail on these.

Watering and Landscape Maintenance

There **should be written tree and landscape maintenance requirements for the contractor and owner for 2 – 3 years.** Watering requirements for the contractor are specified only for the first year. Newly planted trees take several years to get established. Trees planted in a parking area will be hotter and drier than in other areas. An aggressive watering plan for at least 2 and ideally 3 years should be specified for the contractor and the owner.

Delivery of Planting Stock

Planting stock should be **protected during transport, and if stored on site prior to planting should be in shaded and protected** spot with irrigation.

Protection of Wetland/Shoreland Setbacks, and other Sensitive Areas

I have seen in some past construction sites that some sensitive areas where construction was not allowed to occur, were still used for temporary storage of materials and soil, parking of vehicles and equipment, washout of cement trucks, etc. These “temporary uses” caused permanent soil compaction, erosion and damage to vegetation. **All sensitive and protected areas should be fenced off and should prohibit any construction activity, even if temporary.**