

Arboricultural Review

979 Crestvalley Road
Atlanta, GA

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Date: 2/17/2010

Objective: To review trees and shrubs located on site for pests and pathogens. The tree are also to be reviewed for structural concerns.

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Observations: This is a secluded, heavily wooded, residential home site. The forest is a hardwood mix of Beeches, Poplars, Red Oaks, White Oaks, Maples, and others native to the piedmont region of Georgia. The home is a recent addition to this forest. The multi family private drive meanders through the forest on the side of a slope. The home is located off this main drive by a smaller drive that crosses a creek over a manmade bridge. The front yard is a typical forest with edges that have been disturbed by construction. The back yard is hardscaped including a pool and large poured retaining wall. Above the retaining wall is a very steep slope going up to a paved public road. Large evergreens have been placed on the slope for screening.

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Observations of Concern

Starting from the main drive and moving closer to the home four tree specific problems were discovered.

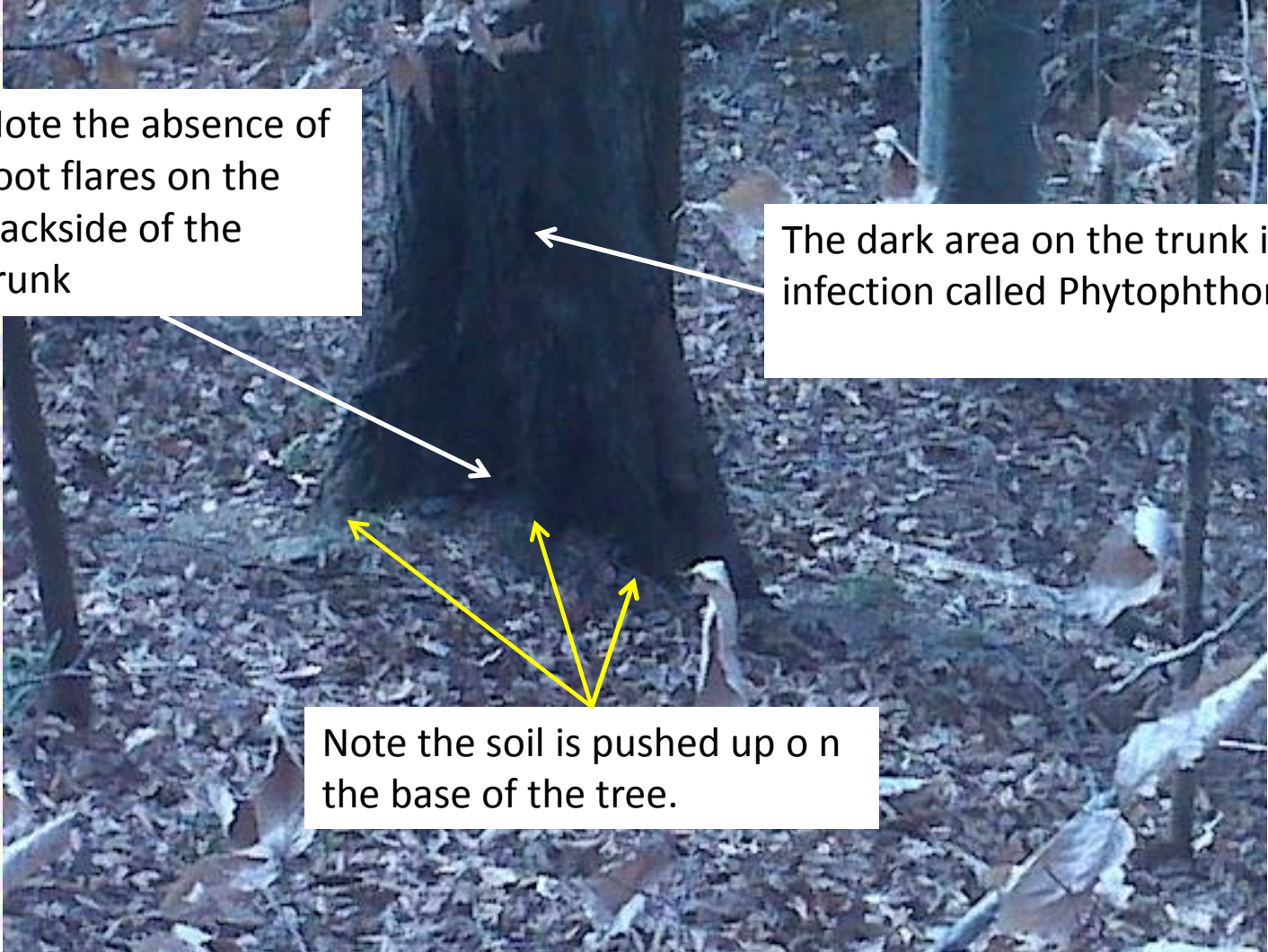
The first is an Oak located on the street side of the creek. The lower trunk has a “wet” spot called Phytophthora. This pathogen is a good indicator of stress and can lead to vascular system shut down resulting in death.

The dark area on the trunk is a fungal infection called Phytophthora.



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The second tree also has Phytophthora. The problems with this oak are compounded by poorly formed trunk flares and soil deposition over the compression plate. The trunk flares are a genetic defect that can lead to structural failure over time. During the construction of the main drive it seems that soil shifted down the hill covering the tree's roots.



Note the absence of root flares on the backside of the trunk

The dark area on the trunk is a fungal infection called Phytophthora.

Note the soil is pushed up on the base of the tree.

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The third tree is located by the main drive. The problems with this oak are caused by construction. The basal wounding was created by road bed development. The erosion control devices are still present. The basal wounds are beginning to decay and will eventually create a hazardous situation.

Guard rail fencing



Basal wounds

Hog Wire used
to back the silt
fence

Synthetic silt fence

The main road

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The fourth tree is located on the island formed in the front yard by the creek. This tree has some basal decay and poor branch formation.



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Several cultural problems were also observed. The lighting was not placed on standoffs and are now damaging the cambium layers on the tree trunks.



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The larger trees planted in the formal landscape have not been properly treated. In many cases the synthetic burlap was left tied to the tree trunk. In several cases the shipping straps have never been removed. This is pervasive throughout the property on the larger trees.



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The magnolia planted next to the front entrance area is very thin. This can be caused by one or a combination of situations. Normally this is associated with too much water in the soil, however the soil was dry on the day of observation. This can also be caused by chronically dry soils. The third possibility is just a genetically poor specimen.

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Shot hole fungus causes the leaves of this shrub to appear to have been chewed by an insect.

These hollies have been planted too deeply.



Conclusion

Three of the four oaks located in the front yard are stressed from the construction. Construction can impact trees for seven to ten years after its completed. The recommendation here is to improve soil fertility concentrations and to apply a tree growth regulator. Fertility will increase the efficiency of the root system and the growth regulator will take the energy normally used for growth and divert it to be used for self defense and root growth. The oak located by the road will eventually need removal because the effects of basal decay can not be reversed. The application of the growth regulator can add years to the decline cycle but is not a permanent solution to the inevitable.

Conclusions

The planted landscape trees should have their root crowns excavated to decrease the chance of disease. This process removes the burlap from the top of the rootball and removes the shipping straps. Root crown excavation also helps to remove some of the excess soil on those trees that are planted too deep. After the excavation process is completed the next step would be to soil inject a bio root stimulant to encourage new root development. Fertilizers can also be applied to increase canopy growth. The shot hole fungus is treated with fungicide and properly timed pruning. A regular spray program should be used to prevent the spread of this disease as well as to continue to protect the boxwoods from leaf minors.