



January 10, 2019

Mr. Kevin J. Johnson, President
JBA, Inc.
205 North Frederick Ave., Ste. 100
Gaithersburg, MD 20877

Re: Westwood Shopping Center, Bethesda, MD – Tree preservation notes

Dear Kevin:

Representatives from Pitchford Associates recently updated the significant tree inventory for this site. We closely examined the only significant tree impacted by this development plan. That tree is #36, a Pin oak that measures 26" of diameter at breast height (dbh). It is in fair to poor condition.

Tree #36 has a substantial amount of dead wood in the canopy, and in my estimation is in a stage of irreversible decline. I did not survey this tree in leaf, but suspect that it is declining due to a combination of limited rooting area and infection by bacterial leaf scorch (*Xylella fastidiosa*). This bacterial disease disrupts the vascular system, which results in a chronic decline in health and is generally followed by a wood borer infestation. My sense is that if this tree were left undisturbed, it would be dead from these inflictions within 5-10 years.

However, in an effort to retain this tree, you have presented a plan that includes a retaining wall set back into the site at a distance that would greatly reduce additional stresses placed on this tree. In fact, I think it would be a great improvement to the rooting area. Asphalt paving appears to cover as much as 40% of the CRZ. However, given the impenetrable nature of asphalt this estimation may be too high. Most of the roots should be concentrated in the grass strip between the parking lot and adjacent driveway, although some roots may have followed cracks into the parking lot.

If the asphalt were carefully peeled back in an area between the existing edge of pavement and the tree drip line, this would be a great improvement in the potential rooting area. Asphalt removal should be performed by hand using jack hammers and small excavator or bobcat (or an approved equal). At no time should machinery traverse the exposed roots. I would like to be present when this occurs in order to ensure that no damage is done to the roots, and that the appropriate protection measures are installed. I anticipate the need for a 4-6" layer of wood chips on top of any exposed roots, and then cordoning off the area with tree protection fencing. Tree protection fencing should be 14-gauge, welded wire fence with strips of orange ribbon attached to the fence at 4' intervals.

Staging a pile of wood chips adjacent to the work area is highly recommended. The area of excavation can be limited to the area of the dripline, unless conditions on the ground dictate removing more asphalt on the day of the work.

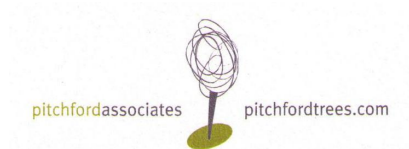
The major deadwood in the canopy should be pruned out during the dormant season (now – end of February) in order to reduce the time when pathogens can invade these cuts. Dormant season pruning allows the tree a head start at wound sealing before pathogens become active again in the spring. Additional treatments to consider include an annual injection of oxy-tetracycline to treat for BLS. This disease cannot be cured, but the effects can be mitigated to some degree with this anti-biotic treatment. I do not recommend fertilization now only because it could exacerbate the effects of the BLS. However, depending upon the effectiveness of the anti-biotic treatment, some level of soil amendments could help to reinvigorate this tree. My recommendation is to wait at least one growing season to see how the tree responds to the anti-biotic treatment, before investing in soil amendments.

Thank you for the opportunity to present these observations and recommendations. Please let me know if you have any additional questions.

Sincerely,

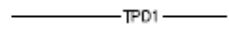


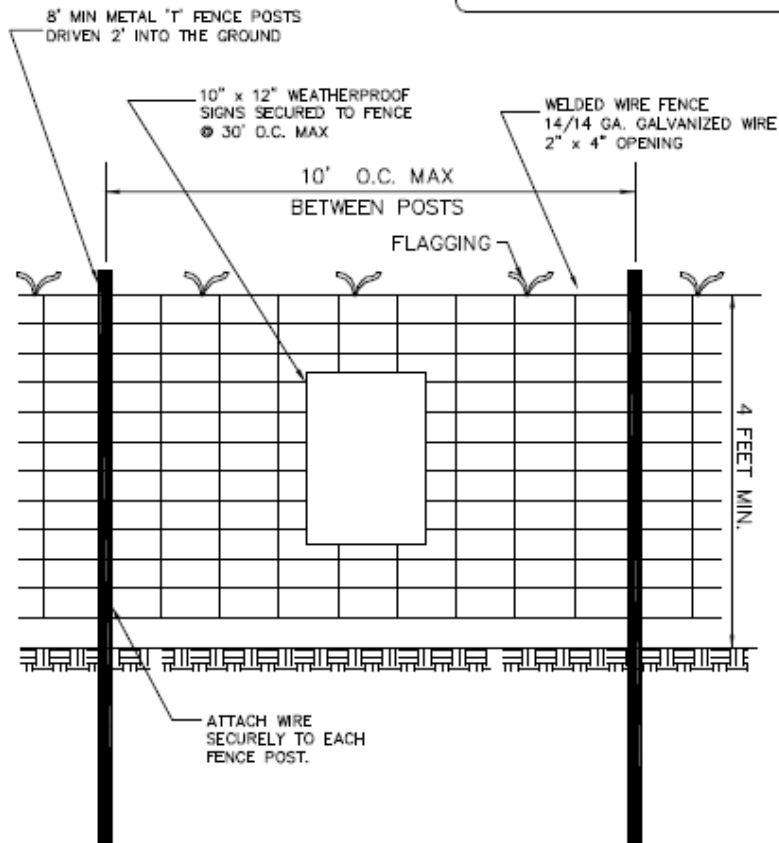
Keith C. Pitchford
ISA Certified Arborist, MA-0178
ISA Certified Tree Risk Assessor
MD Licensed Tree Expert, #589
MD Licensed Forester, #675



TREE PROTECTION FENCING

WELDED WIRE FENCE

SYMBOL  TPD1



NOTE:

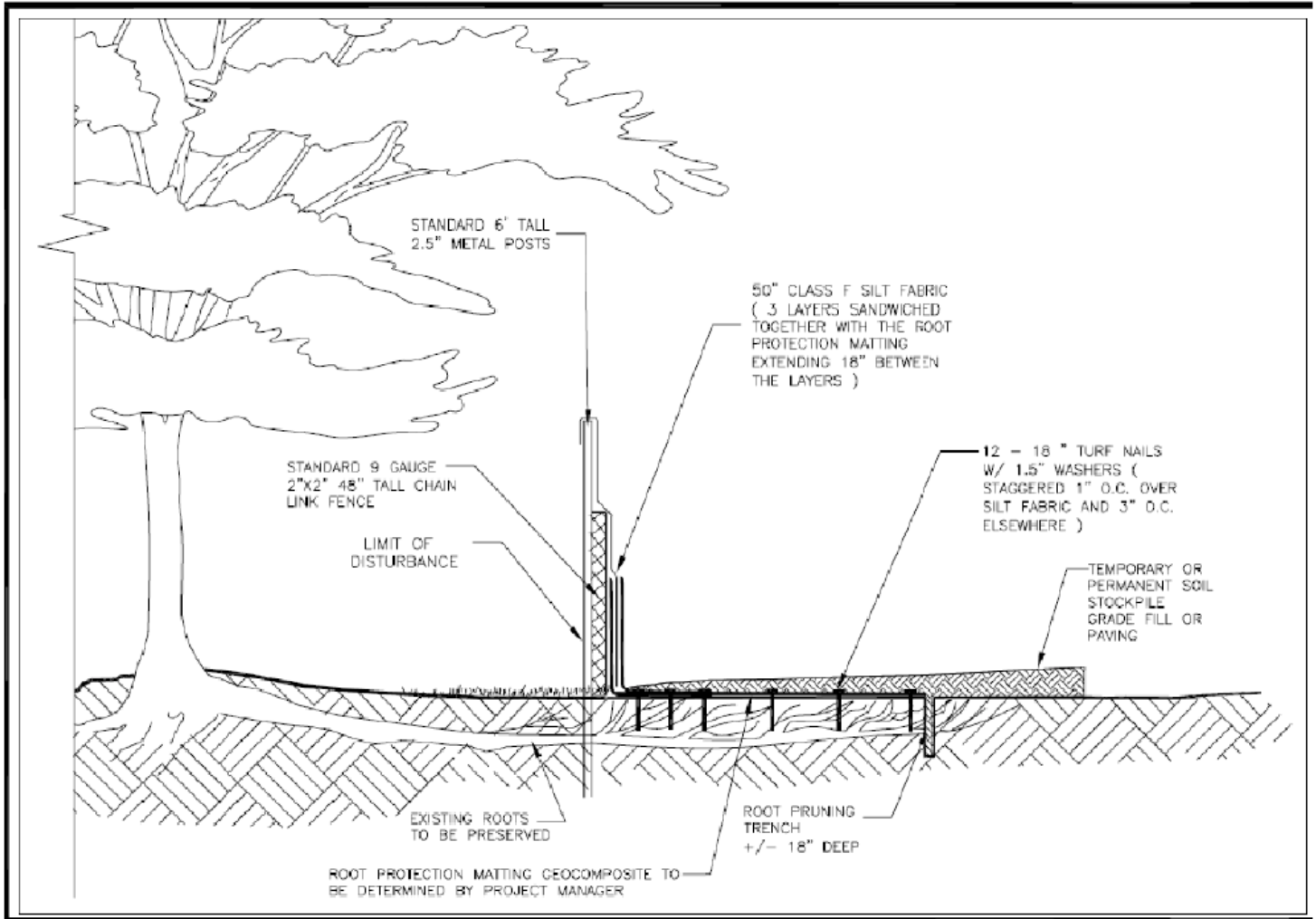
1. PRACTICE MAY BE COMBINED WITH SEDIMENT CONTROL FENCING.
2. LOCATION AND LIMITS OF FENCING SHALL BE COORDINATED IN FIELD WITH ARBORIST.
3. BOUNDARIES OF PROTECTION AREAS SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING PROTECTIVE DEVICE.
4. ROOT DAMAGE SHOULD BE AVOIDED WHEN INSTALLING DEVICE.
5. PROTECTIVE SIGNAGE IS REQUIRED.
6. FENCING SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

TEMPORARY TREE PROTECTION SIGNAGE



NOTE:

1. ATTACHMENT OF SIGNS SECURELY TO THE WELDED WIRE TREE PROTECTION FENCING IN LOCATIONS AS SHOWN ON THE PLAN OR 30' O.C. MAXIMUM
2. SIGNS SHOULD BE PROPERLY MAINTAINED.
3. ATTACHEMENT OF SIGNS TO TREE IS PROHIBITED.
4. SIGNS SHALL BE A MINIMUM OF 10" X 12"



TRENCHLESS SUPER SILT FENCE

N.T.S