



USGA® COURSE CONSULTING SERVICE

Site Visit Report

Franklin Country Club Franklin, Massachusetts

Visit Date: October 21, 2024

Present:

Thomas Gould, Agronomist, Central Region, Green Section
Elliott Dowling, Regional Director, East Region, Green Section

Elliott Dowling | Regional Director | 224.656.9773 | edowling@usga.org

USGA GreenSection

Executive Summary

Walking the course on October 21, 2024, alone, without golfers afforded me the time to take a hard objective look at the tree population at Franklin Country Club. I knew during our CCS visit this spring that I would be returning to look at trees, so I did not give them much thought at the time. Somehow the overpopulation of trees on both sides of virtually every hole escaped me then, but it was certainly a focus now.

You will see in my hole-by-hole recommendations that it is my opinion that the trees on either side of the fairways should be reduced by 50% or more. I can make this report very simple by saying that if you started by removing every evergreen from the course you would instantly have a much cleaner, simple appearance with fewer exposed roots and dense shade. On that note, surface roots in particular are what cause rough and fairway edges to go dormant early and eventually thin without water. Tree roots will always outcompete grass for water and nutrients.

Evergreen trees are dense, which means the coinciding shade on the grass is equally dense. Cool season grasses require adequate sunlight for optimal growth and evergreens are the worst offender of this. However, the shade, shallow roots and lack of air movement go way beyond just the evergreens. The general population of deciduous trees exacerbates the problem.

Table of Contents:

Tree Management Considerations	4
Turf Health	4
Tree Health	4
Playability	5
Bunkers	5
Cart Paths	5
Tree Management Plan.....	6
Hole-by-Hole Recommendations	6
Hole Number 1	6
Hole Number 2	7
Hole Number 3	9
Hole Number 4	9
Hole Number 5	11
Hole Number 6	12
Hole Number 7	14
Hole Number 8	15
Hole Number 9	16
Hole Number 10	18
Hole Number 11	19
Hole Number 12	21
Hole Number 13	22
Hole Number 14	23
Hole Number 15	23
Hole Number 16	24
Hole Number 17	25
Hole Number 18	27
Summary	27
USGA Green Section	29
Turfgrass and Environmental Research.....	29
Tools and Solutions.....	29
Green Section Record.....	29

Tree Management Considerations

Turf Health

1. Shade Concerns.

There is no question that trees can restrict sunlight, thereby leading to poor quality turfgrass conditions. As the height of cut decreases, the demand for sunlight increases. The fairways need more sunlight than the rough. This is especially important for areas that receive heavy traffic from golf carts and damage from divots. Without a minimum level of sunlight, plants are unable to produce sufficient carbohydrates through photosynthesis and they will not be able to recover from injury.

- From an agronomic point of view, trees on the south and east sides cause the most problems because they block morning sunlight. Morning sun quickly removes dew and frost from the playing surfaces. Long periods of leaf wetness caused by slow evaporation of dew can make the turf more susceptible to fungal diseases. However, shade any time of the day will decrease photosynthesis and consequently limit the ability of turf to produce adequate carbohydrates.
- The amount of sunlight an area receives can be determined using a sun path tracking application called [Sun Seeker - Tracker, Surveyor on the App Store \(apple.com\)](#). This tool allows one to quickly understand which trees or individual limbs are causing the poor turf conditions. For more on the topic, please review: [Made in the Shade or Mud in the Shade?](#)

2. Tree Root Concerns.

Tree roots that compete with turf for water and nutrients can extend well beyond the area referred to as the tree drip line. As a result, they can make the turf more chlorotic and droughty. Root pruning can help reduce root competition and improve turf quality; this practice should be carried out to protect turf areas that routinely come into play.

Tree Health

1. **Within the framework of a single golf season, it is easy to lose sight of the fact that a tree has a finite life span and is susceptible to injury by insect, disease, and weather events. Nevertheless, resources should be allocated in the budget to support the long-term health of key trees on the course.**

- Many highly regarded golf facilities located in moderate to heavily wooded sites will arrange for a reputable tree service company to manage trees on one-third of the course each winter. Management includes removing dead trees or trees in advanced stages of decline, damaged or dangerous trees, and pruning out dead wood.
- Selective pruning is also done to shape young trees and to balance canopies of older trees. This is also the time to eliminate unnecessary or weedy understory trees and the time to remove the lower branches and limbs of trees. Limbing up trees makes it easier (and safer) for carts to move through the roughs and opens vistas to other areas of the course. Removing understory trees and brushy undergrowth improves air circulation across the course as well.

- The input of an ISA Certified Arborist® is strongly recommended to review damaged trees or trees in advanced stages of decline that may present a hazard to members, guests, or maintenance staff.

Playability

1. Stress Factors.

Because golf is a game that is played on grass, both shade and tree root encroachment are significant stress factors caused by trees. Good golfing conditions require a healthy base of turfgrass. When trees compromise or limit the ability of the superintendent to grow healthy turf, playing quality suffers. For a golf course to be maintained in a cost effective and efficient manner, it is important to make it as straightforward as possible to grow and manage healthy turf. This means providing the turf with adequate sunlight, water and nutrients. Micro-managing weak turf caused by shade or tree roots quickly becomes expensive. This evaluation also examined where shade or tree roots may contribute to weak turf in the future as trees grow.

- Trees not only interfere with growing the turf, but they serve as a direct obstacle for those playing a hole. Narrow playing corridors can create an extremely difficult challenge for less skilled golfers as well as block those with slower swing speeds from reasonably reaching a green in regulation.
- This not only detracts from the overall playing experience but can lead to issues with pace of play as golfers have to search for lost balls in the trees.

Bunkers

1. Trees and bunkers do not mix.

Trying to navigate a bunker is challenging enough. Add a tree directly behind or in front of it and you have created a double hazard that is unfair.

Tree roots can infiltrate bunkers and could come into contact with an unsuspecting golfer. Not to mention, the tree roots can compromise bunker liners and cause the bunker sand to become contaminated with soil. The leaves that are deposited into the bunkers can also cause the sand to become dirty and add to the maintenance expense of the golf course. The USGA article [The Hidden Cost of Trees](#) discusses the matter in greater detail.

Cart Paths

1. Tree Proximity.

Trees in close proximity to the cart paths obstruct golf carts from entering and exiting the fairway. This limits the ability of the maintenance staff to disperse the wear and tear that is inflicted, and bare areas can quickly develop from concentrated traffic stress. The surface tree roots can fracture the paths, leading to costly repairs. The USGA article [A Decision Tree for Tree Removal](#) discusses how trees affect cart paths and other features.

- Any trees that are within 10 feet of the cart path are a potential concern and should be considered for removal.
- Additionally, roots inside of the path, that is between the path and the fairway, should also be targeted for removal to improve golf cart traffic flow.

Tree Management Plan

Hole-by-Hole Recommendations

Hole Number 1



Open right side of tee for better sunlight and vistas



Selective removal will open room for remaining trees to thrive.

Hole Number 2



None of the trees are needed here. They are out of play with no strategic value. If you keep any, keep only one deciduous tree. (blue X)



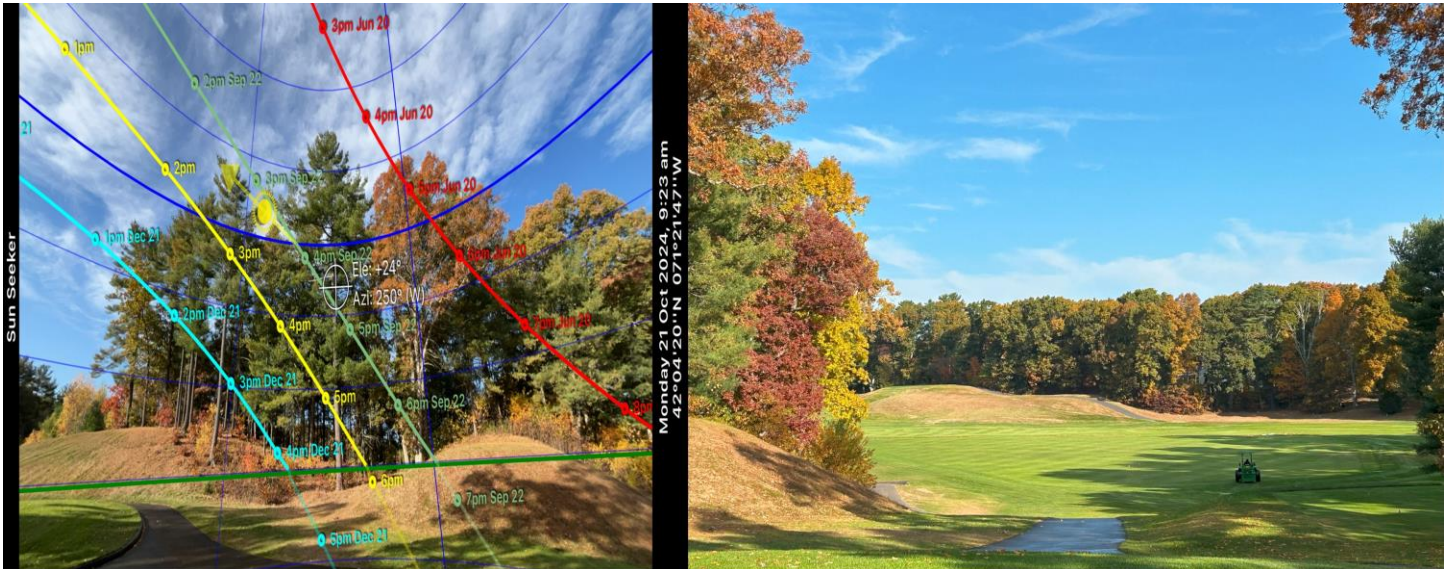
Remove tree marked with red X. It is out of place and adds no value. The Elm tree (right photo) looks to be in poor health and is not needed where it is.



Two to three trees are all that are needed here. Pick out the healthiest, most attractive and remove the rest. The remaining trees will become a feature here rather than a cluster.

- Remove 50% – 70% of the trees on the left and right side of the holes.
 - ◆ Thinning the cluster between 1, 2 and 3 will improve the growing environment and expose a view to the clubhouse from 2 fairway.
 - ◆ Thinning the cluster on the left side will allow for more sunlight to hit the fairway in the fall and winter.

Hole Number 3

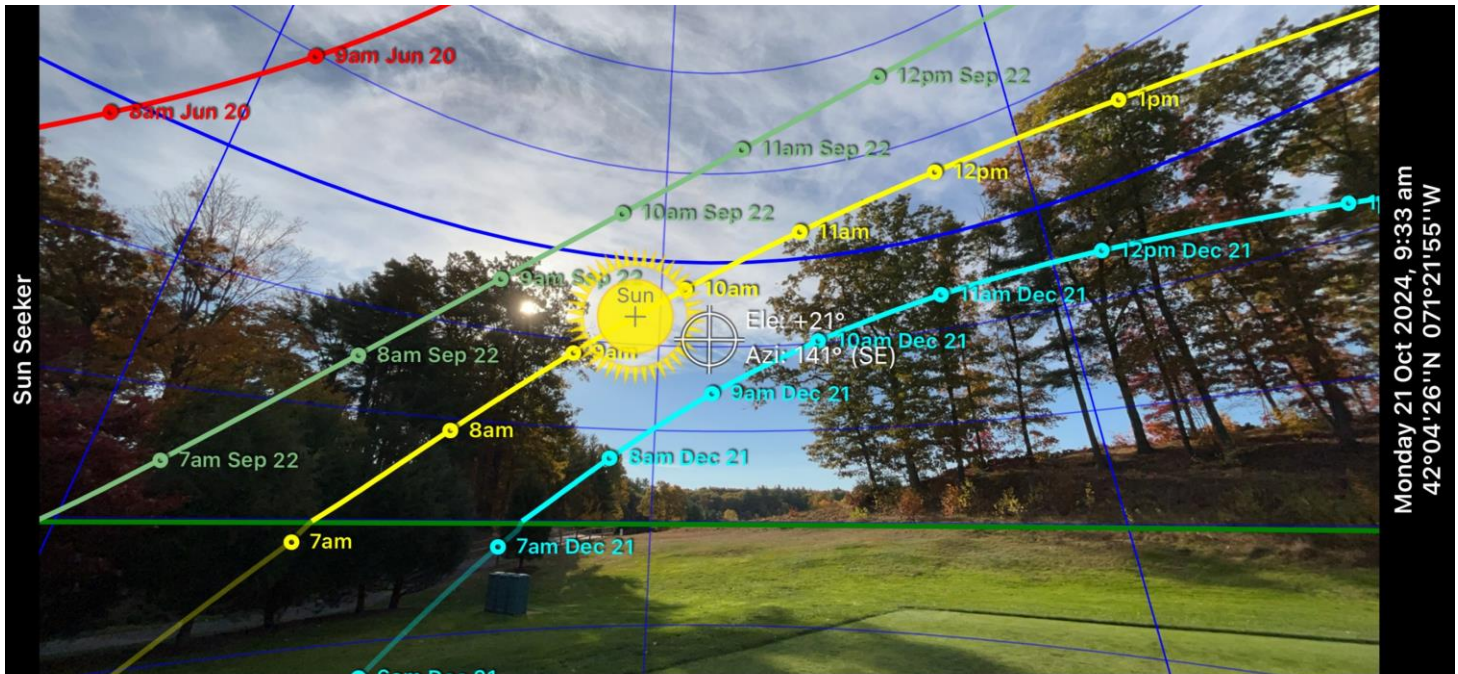


At minimum remove the evergreens behind the tee to improve the growing environment. Push the tree line back on left side to open the view and present another playability option.

Hole Number 4



Examples of unnecessary trees. The ornamentals only add maintenance, especially the beds behind the tee, and create an artificial look to what should be a natural setting. Removing them would improve maintenance efficiency and growing environments.



Far too many trees behind the tee. None of them are worth the amount of shade they cast on the tee. Thinning by 50% or more will improve this situation.

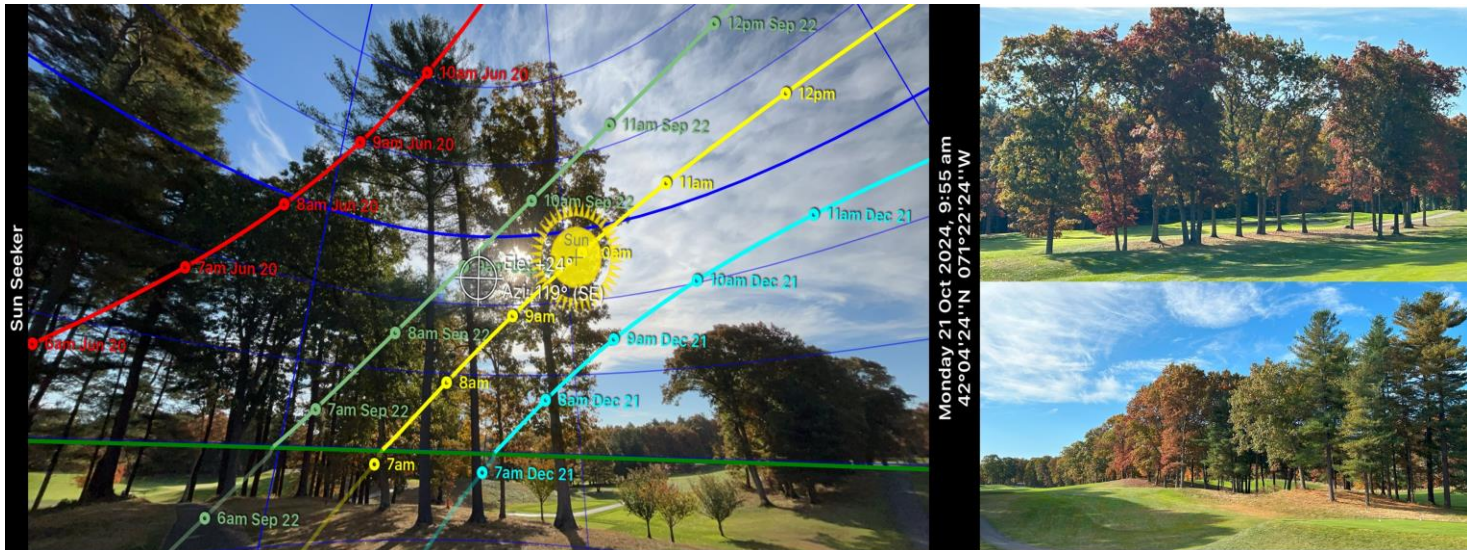
Hole Number 5



Opportunity to highlight some wonderful trees. Remove evergreens (red box) and save the two with a blue X. Selective removal behind the green for better sightline, growing environment, and tree preservation.

- The 5th hole starts the process of selective removal left and right of the hole. There are several nice trees that are hidden that if exposed would become a feature of the hole.
- Fewer trees in general, and especially on the right and left of the fairway will eliminate the number of shallow tree roots and shade and improve air movement. Improving each of these will improve the health of the rough.

Hole Number 6



The theme of selective removal left and right repeats itself on nearly every hole. Simply put, there are far too many trees on the course. Rough health, playability, sightlines, and tree health are all suffering because of overplanting.

- The group of trees on the left of the tee block nearly all morning sunlight at all times of the year. This is a bad situation for tees. They need every advantage for healthy grass to recover divots and traffic.
- The top right photo shows an overpopulation of trees that if thinned would not only improve grass health underneath but would open a beautiful view to 11 green.



Imagine how good this green looks with the two oak trees standing alone behind the green. Clear everything around them and make these are feature trees of the hole.



Mulch beds are best kept around the clubhouse, pool etc. They are not natural on the course and add maintenance to the operation for very little ROI. The lone tree (top right) is out of place. You can relocate this to another more impactful area.

Hole Number 7



The largest tree in the foreground can take the place for almost every tree behind it that you cannot see from the tee. Highlight it and remove the rest of the cluster behind.

- This photo is a good example that repeats itself on nearly every hole. Keeping the “bookend” trees on either side of your sightline and greatly thinning everything in between will still maintain a treelined appearance with a much healthier tree population and grass underneath.



The exposed rocks are a nicer look than the cluster of trees. Expose them. Remove all trees inside the path (top right photo) and selectively thin the right and left side of the fairway trees.

Hole Number 8



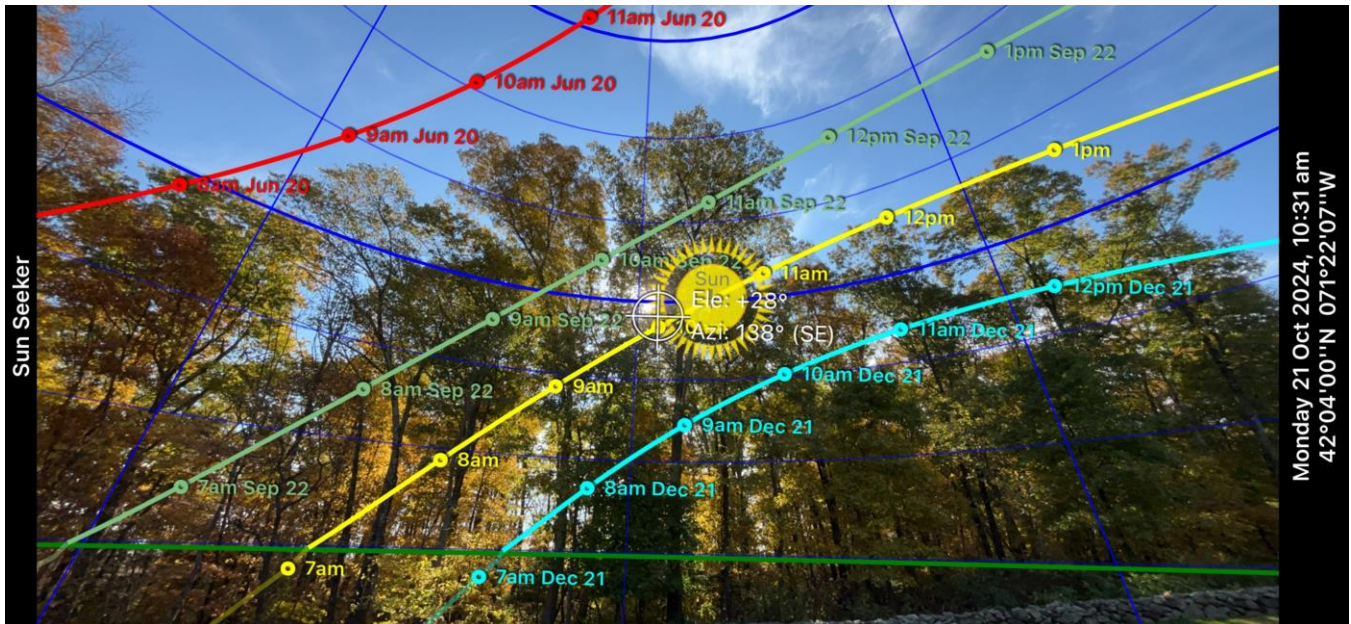
The green will look larger if the tree line is pushed back behind it. Overcrowding takes away depth. Keeping a few would add aesthetic value.

- Thinning trees behind the green expose views to the 7th and 9th holes.



Not only do these trees hide a water view, but they also drop leaves and debris. Those decompose at the bottom, reducing the amount of water storage.

Hole Number 9



Fall/winter sunlight is just as important as summer sun. Removing trees behind the tee will expose the bentgrass tees to more, much needed sun, for recovery.



It makes sense on any hole with the rock wall to allow that, and the forest behind, to be the boundary. The wall is an interesting feature that should be highlighted.



Push the tree line back enough to expose the greenside bunkers and improve rough health. Notice the same trees I identified on 6 could be highlighted behind 9 green too.

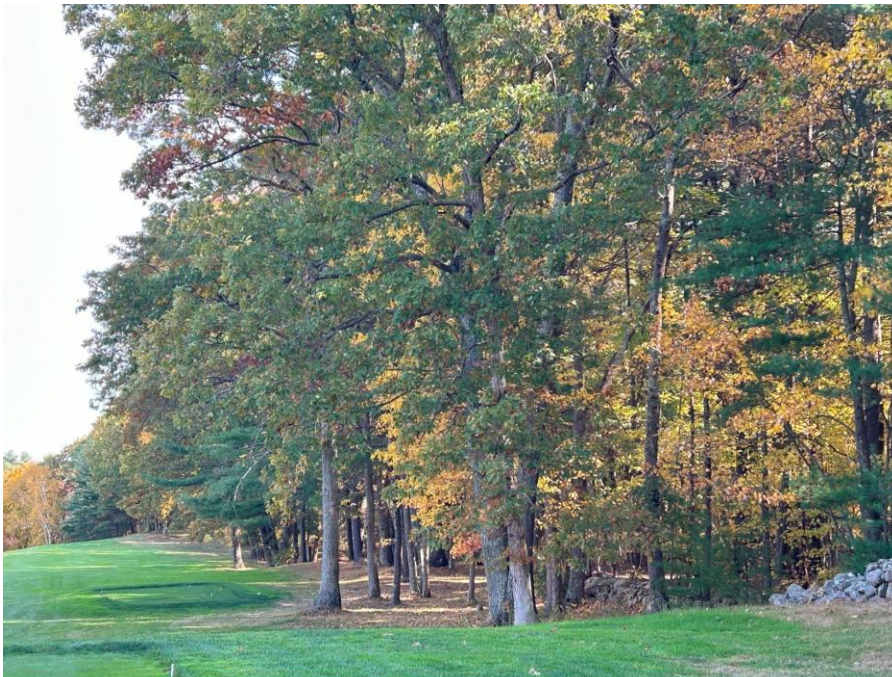
Hole Number 10



These two mulch beds require unnecessary maintenance and in the case of the left photo, create a traffic funnel that is easily seen by the condition of the grass. Remove the beds and ornamental trees.

- Another example of unnatural features on a natural looking course. The look of the tee complex is simplified without the beds.
- Encasing this tee with trees creates a very poor growing environment. Selective removal on all sides opens channels for better sunlight penetration and air movement.
 - ◆ Pay attention to winter shade/sun in summer and winter. This tee doesn't have good

of either, but some tees or greens might get good sun in the summer but nearly blackout shade in the fall and winter. Cool season grasses need sun at this time too for recovery and winter protection.



Look at the poor grass under the trees. Remove all trees back to the rock wall boundary to improve sightlines and grass health.



This should be the example for the course. The trees are pushed back to expose the entire hole. The green is in full sun and players of all abilities have an entry to the green without navigating around or under unnecessary trees.

- Note that the large oak behind 10 green is the same I highlighted from 5. It can be seen from multiple holes, like so many other trees if exposed.

Hole Number 11



No reason to keep these three trees blocking the sightline down the left side.

- Remove trees on the left side between the cart path and the rough. They are all taking water and nutrients from the rough and shading the bunker. Removing these trees will open a better view to the bunker.



Another great opportunity to showcase one to two trees behind the green. Remove the conifer and choose the best one or two and remove the rest.

- You can use a few of the trees from 10 tee too. The entire area around 10 tee and 11 green needs to be thinned. They will work together to accomplish the same goal.

Hole Number 12



Remove three to four trees from the left side. This opens playability options to play a fade or cut the left corner. Also pushes shade back off the playing surfaces.



Remove trees on the right inside the rock wall. They are hiding a nice feature. Remove all ornamental trees behind the green all the way back to the forest line.

- Ornamental plantings take away from a natural looking golf course. They are hiding more interesting features (rock wall) and distract from the green and natural forest behind.

Hole Number 13



Push tree line back on the right to expose more of the water and a view to the putting green.

- The tree line on the left should be pushed back by at least 20 feet and thinned out to improve the growing environment.



Two oaks behind the green are beautiful and all that are needed. Remove trees inside red outline to expose a better view of the water on 14 and highlight the oak on the right.

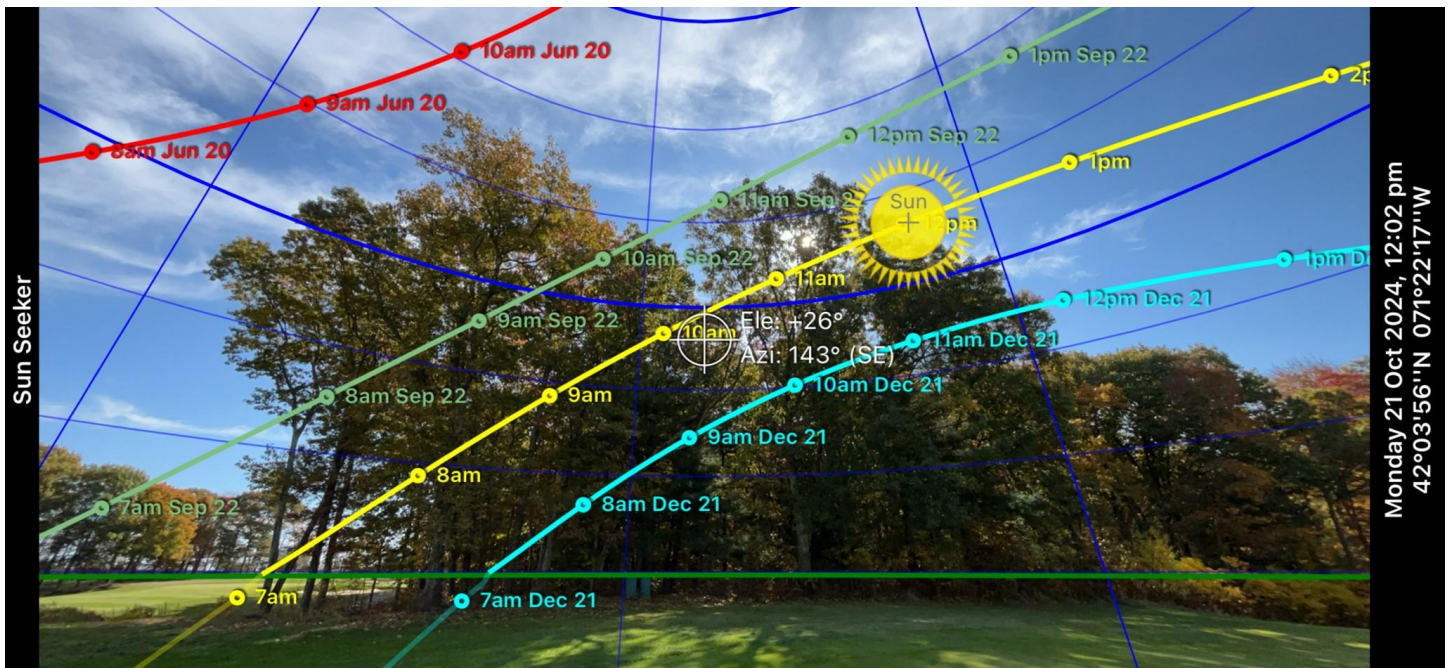
Hole Number 14

- Found nothing at this time.

Hole Number 15



Push the tree line back on the right at least 20 feet. Open playability options and views, remove competition to rough. Remove every tree growing in the rough, allow the forest to be the natural boundary.



Another green in a poor growing environment. Open channels for sunlight for each month September – December. There are trees on the back and left of the green that block sun and air too that should be thinned.

Hole Number 16



These two trees inside the cart path are unnecessary and clearly causing turf decline in the rough and potentially tee.



Remove trees covering the view of the right-side greenside bunkers.

- Thin trees from the entire left side of the hole. Like many other holes, there are simply too many trees growing together creating a poor growing situation for the trees themselves and a very poor growing environment for the grass below.

Hole Number 17



Move tree line back at least 20 feet to widen the corridor and reduce shade and root competition.



The rock wall is exposed the length of the hole. You could have this same look on several holes by simply removing unnecessary trees.

- The left side of the hole has a tree lined appearance and a view of the rock wall. This is accomplished by removing all trees inside the wall. This is a “best of both worlds” example.



Keep two of the five oak trees in this cluster. The right photo shows how shallow roots outcompete grass for water, sunlight and nutrients. Fewer trees in an area means less competition for grass and healthier trees.

Hole Number 18



These trees look random and out of place. Remove them all and replant one native species to break up the landscape and simplify the look.

Summary

I cannot overstate how important it is that Franklin Country Club adopt a full course tree management plan. There are far too many trees growing in playing corridors blocking views to the wonderful landscape and course features like bunkers, greens and the rock wall.

More importantly is the many trees growing too closely together and too close to playing surfaces. This creates poor growing environments that puts grass at a disadvantage. When it comes to putting green conditioning in particular, they need every advantage possible. Putting green management is inherently stressful withholding water, nutrients, mowing low and rolling often to create smooth, firm and fast surfaces. In the absence of adequate sunlight and air movement, that inherent stress is amplified. If you are overwhelmed with the sheer number of trees and wondering where to start, I recommend removing every conifer first. Those trees in particular cast a lot of shade and have the shallowest root structures. Plus, they detract from the other deciduous trees growing nearby. The landscape will look cleaner without them.

I wish we would have looked at trees years ago, maybe we could have started removing trees when they were smaller and not let the population grow to where it is today. But we cannot go back in time,

nor should we worry about the past. What is important now is to focus on what you want for the future of the course and how trees fit into that plan. It is entirely possible to have a tree lined, parkland style course with 75% fewer trees. Visually, fewer well positioned trees are not as noticeable as you might envision consider how many I recommend removing. What you will notice, however, is healthier rough and playing surfaces, wider playing corridors and more interesting views around a wonderfully rolling landscape.

Respectfully submitted,



Elliott Dowling, Regional Director, East Region
USGA Green Section

Distribution:

Michael Luccini, Golf Course Superintendent

USGA Green Section

Turfgrass and Environmental Research

The [USGA Green Section](#) appreciates your support of the Course Consulting Service. First started in 1953, the Course Consulting Service provides unbiased assessments of golf facilities to optimize resources and reduce consumption of critical resources. The proceeds from the Course Consulting Service directly support the USGA's annual \$2 million investment in [turfgrass and environmental research](#), which provides an estimated [\\$2 billion annual benefit to the U.S. golf industry](#). Follow the QR Code for more information.



Tools and Solutions

The USGA Green Section is proud to offer [tools and solutions](#) for golf courses. Innovative products including Deacon, GS3, and GPS Services provide solutions to optimize the golf experience through data-driven communication and resource management.



Green Section Record

The [USGA Green Section Record](#), is a free digital magazine offering the latest information on turfgrass management, environmental sustainability, innovation in golf course maintenance, and turfgrass research. If you would like to stay updated on regional topics, best management practices, and industry trends, please [subscribe for free to The Record](#).