

Town of River Bend Plantation Median Project



River Bend
Community Appearance
Commission

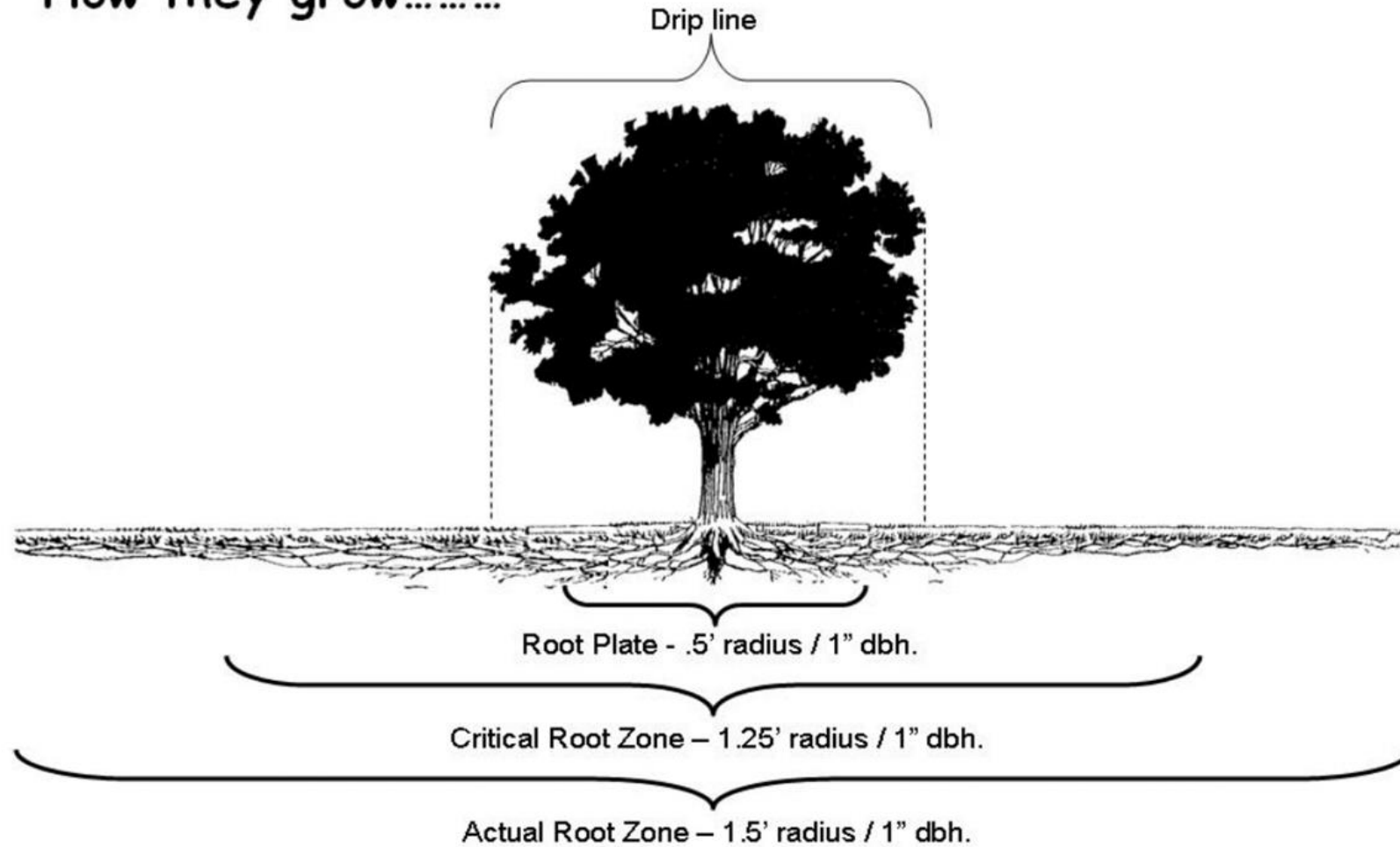
Brenda Hall, Chair
Meg Williams, Christine Soler

Recap from Tom Glasgow's Presentation to Town Council, March 16, 2023

In Summary:

1. Available rooting space should guide decisions regarding retention or removal of existing trees, as well as selection of new trees
2. Avoid damage to trunks, roots, stems, root plates and critical root zones
3. Scout for disease and structural problems
4. Minimize presence of non-native invasive plant species
5. Contract with a certified arborist for routine inspections
Inspect, Remediate, Document

How they grow.....

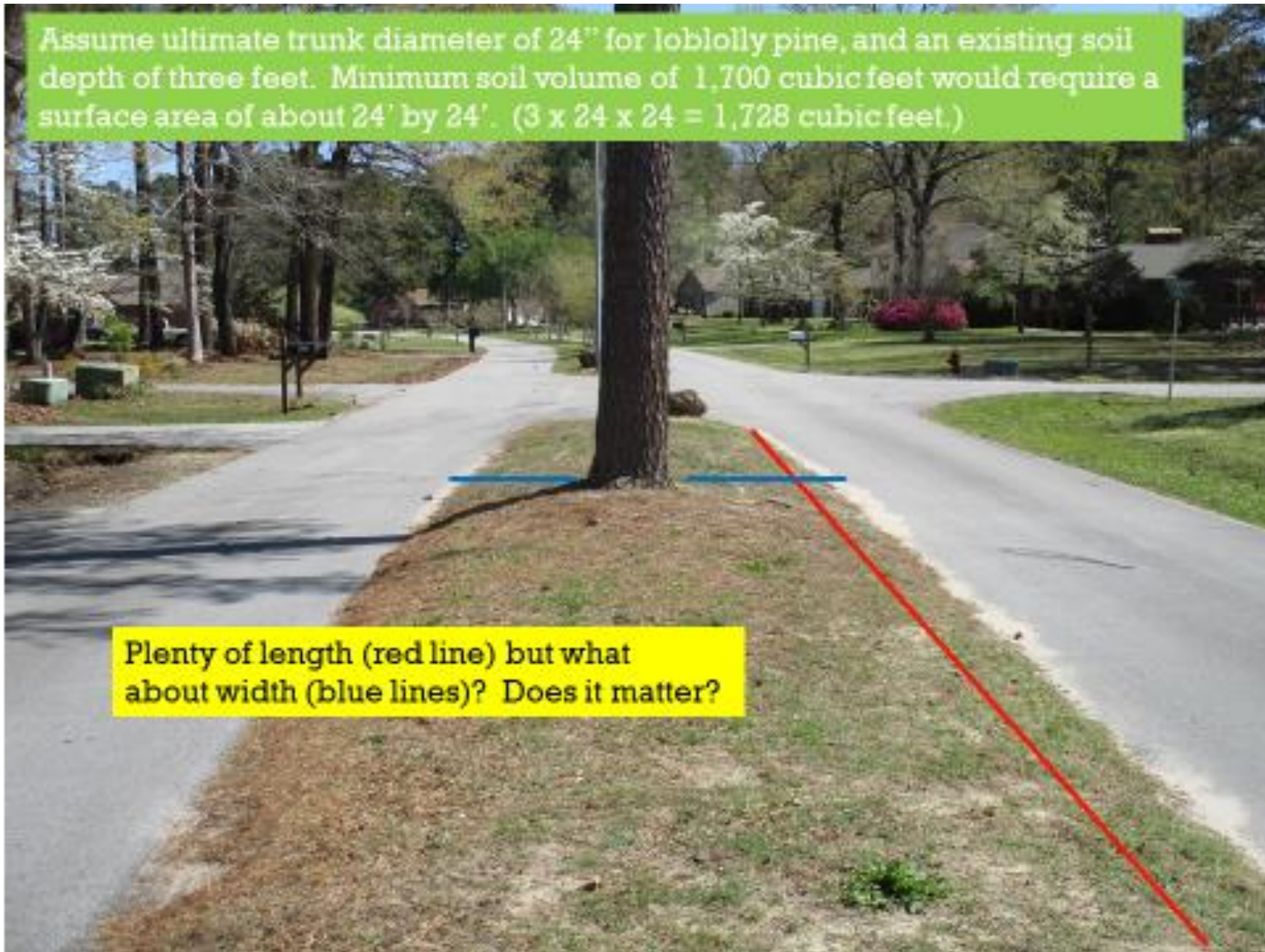


Sycamores after Hurricane Florence



Root plates, not tap roots.

Assume ultimate trunk diameter of 24" for loblolly pine, and an existing soil depth of three feet. Minimum soil volume of 1,700 cubic feet would require a surface area of about 24' by 24'. ($3 \times 24 \times 24 = 1,728$ cubic feet.)



Plenty of length (red line) but what about width (blue lines)? Does it matter?



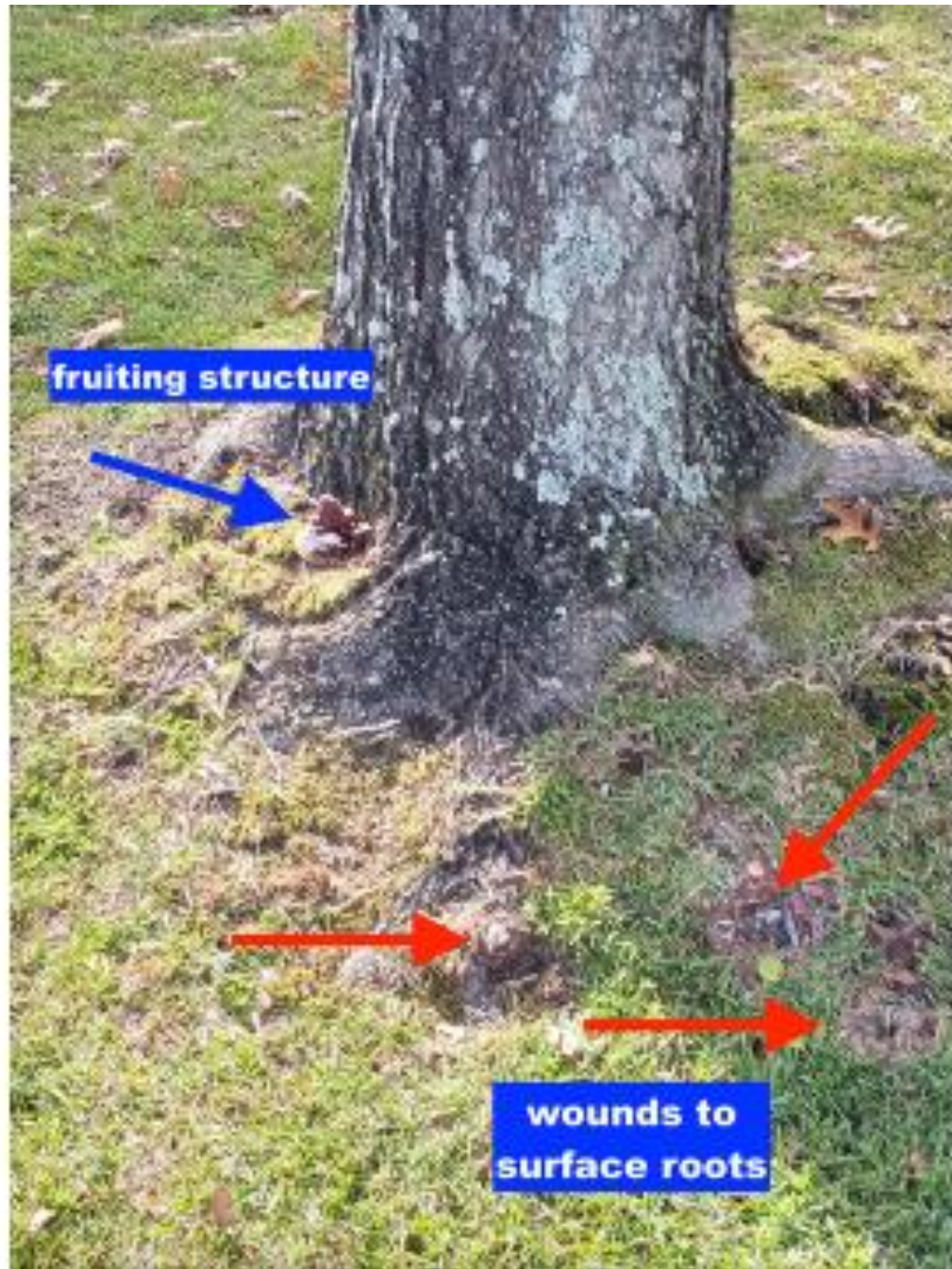
As drivers move to the left to give pedestrians and bikers more space ...

The root plate supports the vertical weight of the tree!

... vehicles pass within inches of the trunk, resulting in substantial damage to the root plate and diminishing the stability and health of the tree.

Codominant trunks. As the trunks expand in diameter, they push against each other, becoming more prone to splitting and falling apart every year.





Location at corner of Shoreline and Plantation

1. Tape left on trunk; 2. & 4. Volcano-mulching, harmful to lower trunks; 3. Trees too close to each other and the road; 5. Codominant trunks



Intersection Anchor Way and Plantation Drive



Nandina domestica
Invasive species in NC

Ligustrum japonicum
Invasive species in NC



Provide enough space!

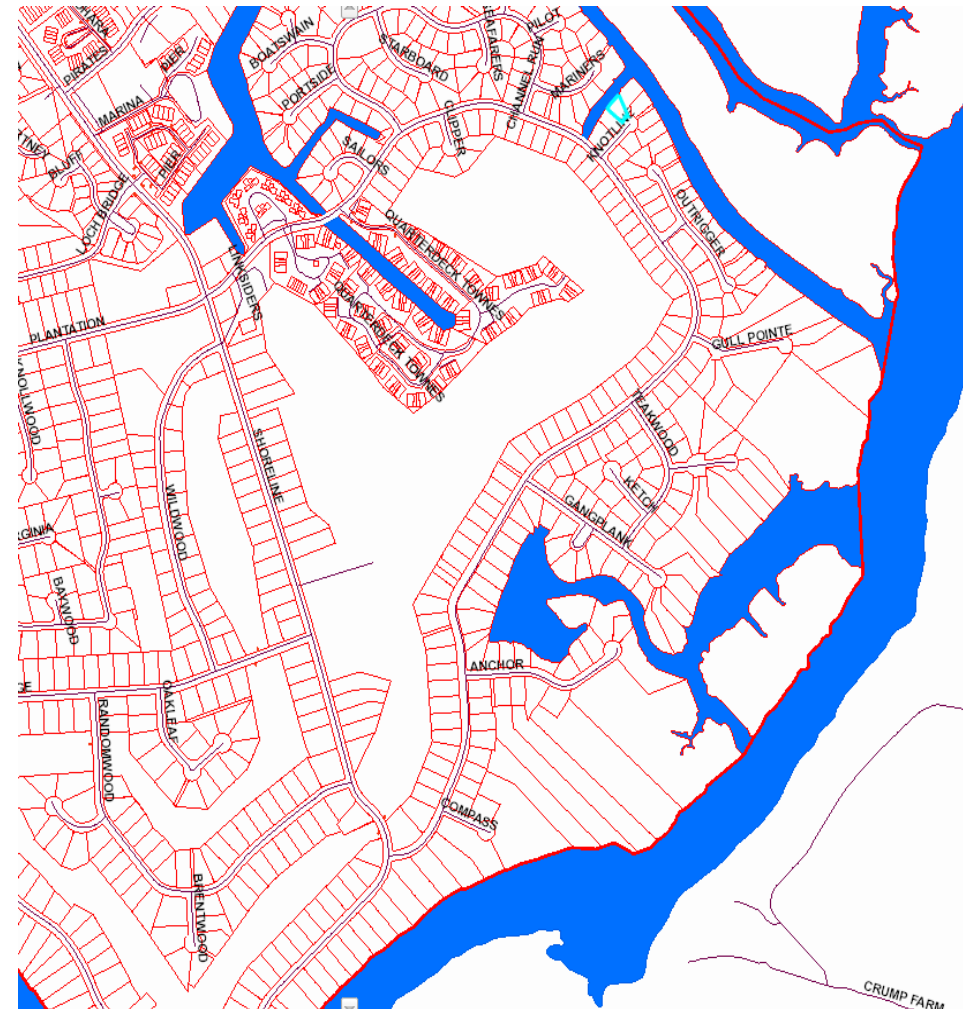
Barb Fair, NCSU



End of Recap

Plantation Median Project Background:

- CAC asked to assess Northeast Plantation Drive medians by:
 - Assessing the overall health of trees and shrubs in medians
 - Making recommendations to improve the aesthetics of the medians
- Plantation Drive medians take up approximately 1 mile of existing roadway between 2 lanes of traffic leading to Shoreline Drive
- Approximately 600 homes, or 39% of River Bend homes, use Plantation Drive to get to their homes
- Plantation Drive is likely the 2nd most trafficked road in River Bend



Plantation Median Project Observations:

- Medians are 6"- 24" above the paved road
- Ground cover consists of mostly weeds, centipede grass, and pine straw
- Trees and shrubs are mostly original plantings from the 70's and 80's
- Medians are in overall poor condition
- Roadways have heaving from tree roots
- Many median areas are completely bare with no shrubs or trees
- Medians detract aesthetically from community



Plantation Median Project

Issue #1: Tree Health/Safety

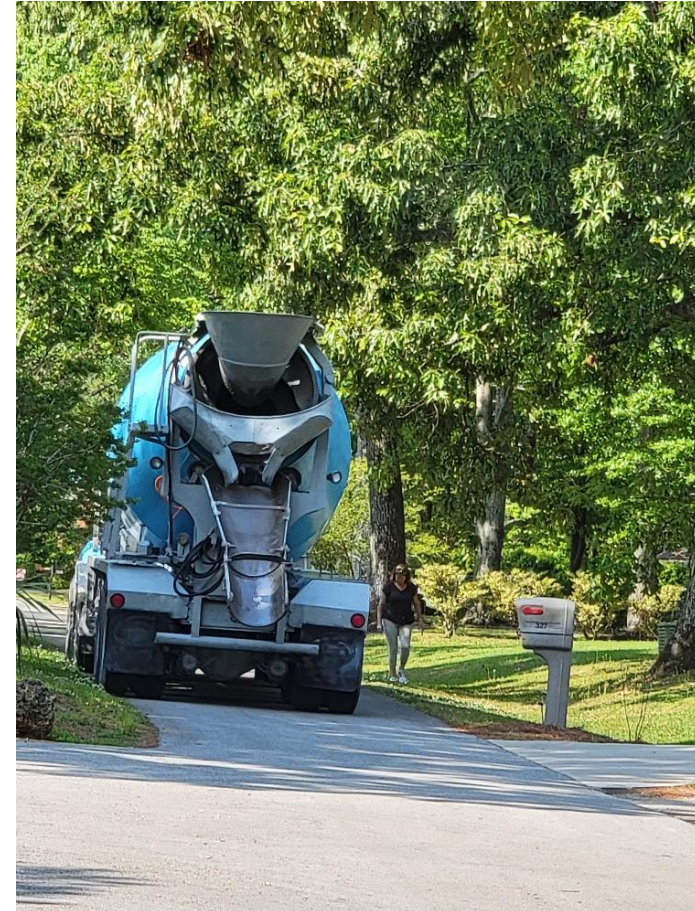
- Safety is a primary concern for the median spaces due to the poor condition of many median trees
 - Unhealthy trees are more susceptible to storm and wind damage
 - Increased liability for injury to cars, bikers, and pedestrians from falling trees and branches
 - Trees have inadequate space for proper growth and are too close to the road



Plantation Median Project

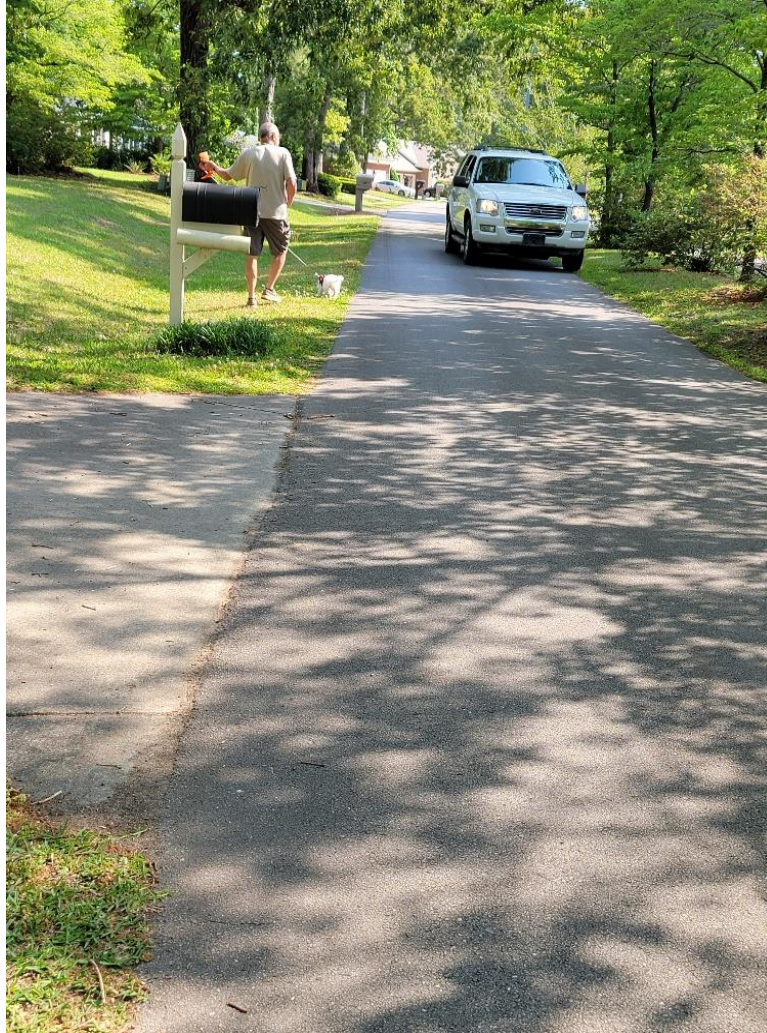
Issue #2: Road Safety

- Plantation Drive is a major, heavily used road in River Bend (serves ~600 homes)
- Width of Plantation Road too narrow and not enough room for cars, cyclists, and pedestrians on the roadway
- No designated walk path
- Cars and trucks drive on median or right-of-ways to pass pedestrians/cyclists
- Pedestrians/cyclists have to move off of road for cars/trucks to pass
- Significant potential for wrecks and injuries to bikers/pedestrians when exiting road to an uneven and sloped surface
- Driver vision obstructed in multiple areas from shrubs and bushes

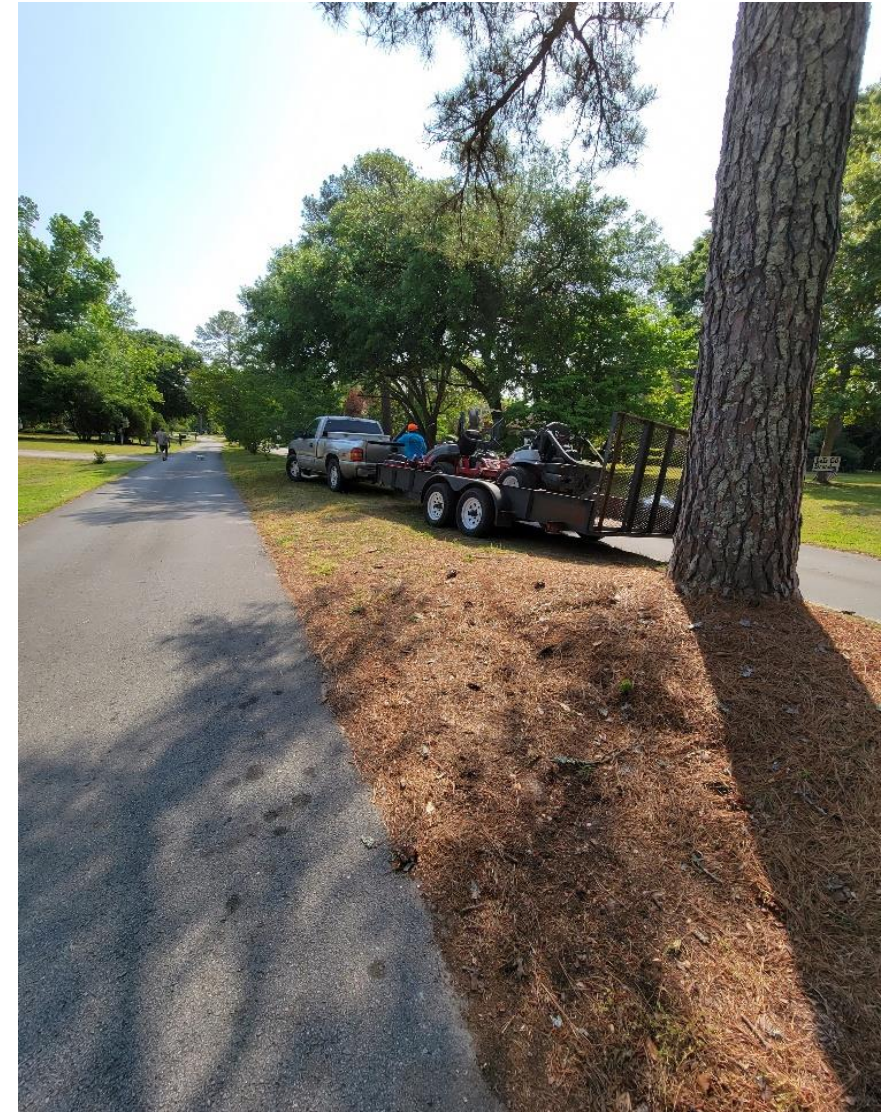


Plantation Median Project

Issue #2: Road Safety



- Inadequate space for cars and pedestrians
- Work trucks park in medians and inflict consistent damage on tree root system
- Cars drive off road to pass pedestrians/cyclists and create ruts and damage roots
- Pedestrians/cyclists exit pavement for cars to pass and increase risks of injury



Plantation Median Project

Issue #3: Maintenance

- Town has an annual contract for lawn service that includes medians
- Township has no specific contract for tree arborist or tree specialist
- Improper pruning techniques are detrimental to tree health
- Mowing and power tools too close to trunks are detrimental to tree health
- Medians are overall, unhealthy, poorly maintained, and detract from the community's appeal

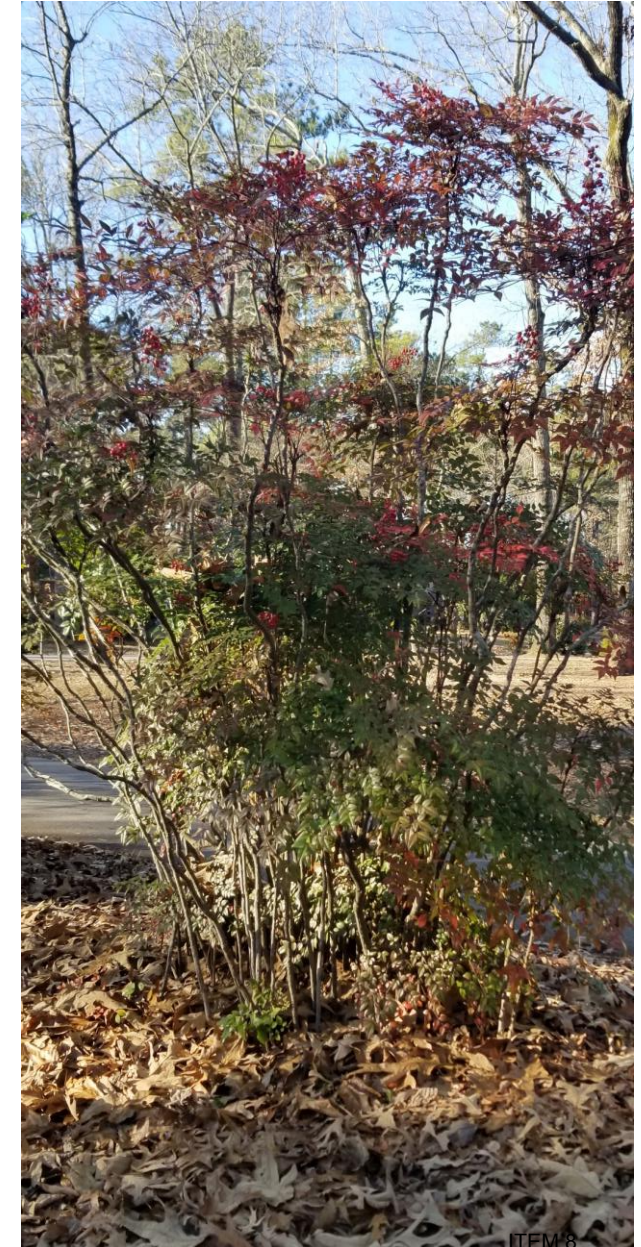


Plantation Median Project

CAC Recommendations

Issue #1: Tree Health/Safety

- Identify trees that need to be removed
- Mitigate risks of diseased/dying trees and shrubs with prompt removal
- Remove invasive shrubs
- Include Anchor Way median in this process for same issues
- Hire certified Tree Arborist to assess all trees on town property annually

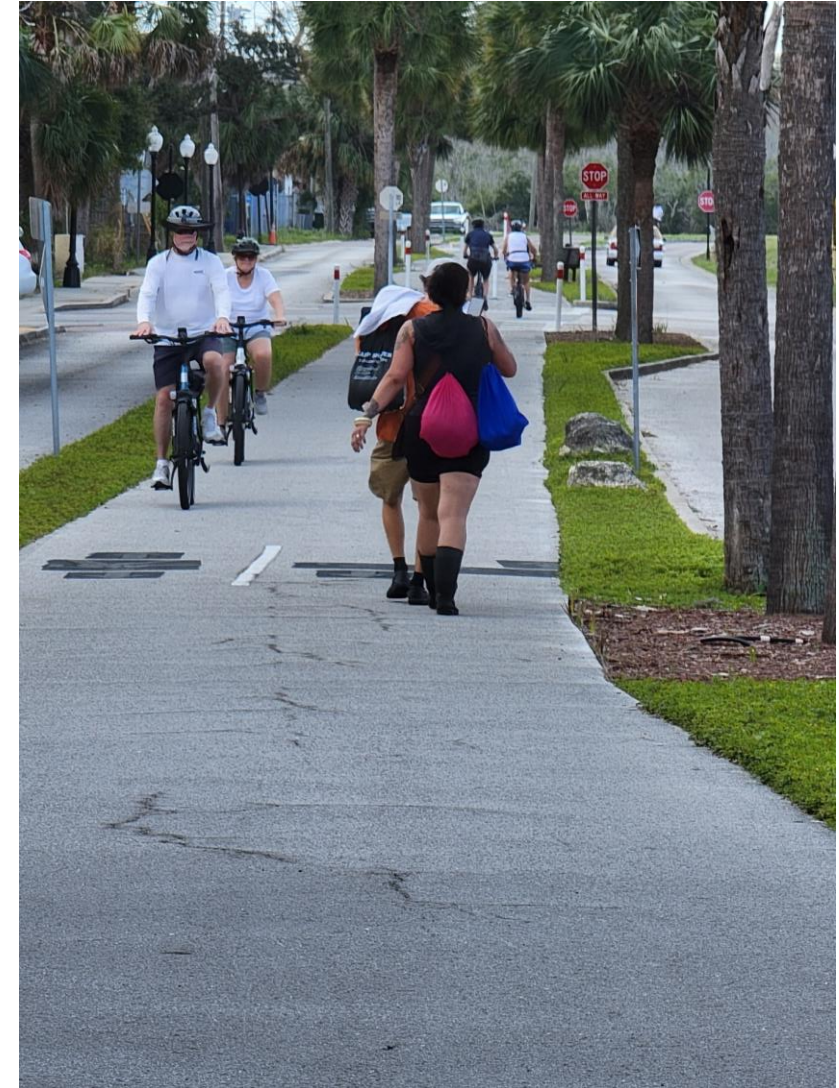


Plantation Median Project

CAC Recommendations

Issue #2: Road Safety

- Consider alternative median space utilization
 - 1. Install walk path down the center of longest median stretch (.8 miles)
 - Decreases wind and storm liability by removing diseased and unhealthy trees/shrubs
 - Improves utilization for pedestrians and bikers
 - Improves aesthetics of median by planting appropriate plantings where space is available
 - Creates barrier between cars and pedestrians
 - Reduces risks of injuries to pedestrians and cyclists
 - 2. Remove medians, level ground, and repave roads with designated walk path on at least one side of the road



Plantation Median Project

CAC Recommendations

Issue #2: Road Safety

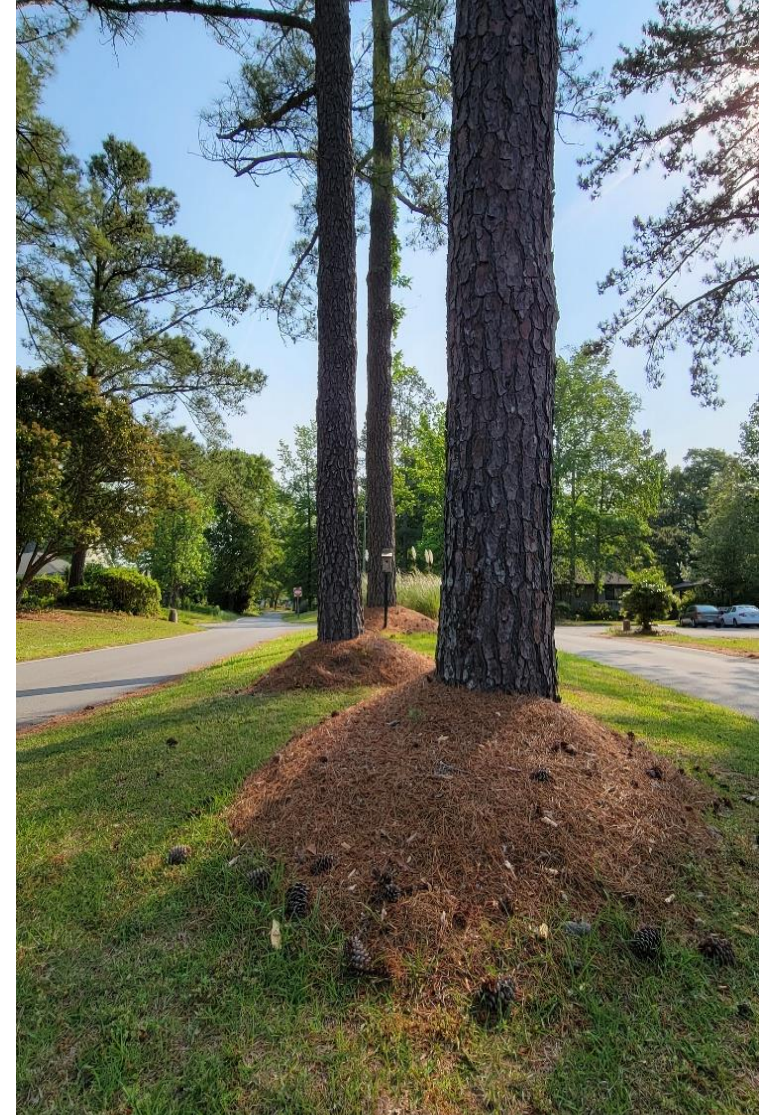
- Explore Grant funding opportunities for alternative median usage
 - Craven County funding from the Infrastructure Investment and Jobs Act (IIJA). Monies available to fund design/feasibility study for project and/or potential grant writing assistance to find the best grant and funding for our project.
 - The [AARP Community Challenge](#) grant program is part of the nationwide [AARP Livable Communities](#) initiative that helps communities become great places to live for residents of all ages. The program is intended to help communities make immediate improvements and jump-start long-term progress in support of residents of all ages. Since the program's debut in 2017, AARP has awarded \$12.7 million through more than 1,060 grants in nearly 700 communities reaching 100 million people.

Plantation Median Project

CAC Recommendations

Issue #3: Maintenance

- Provide education and accountability for workers who are maintaining our community's trees (stop volcano mulching, crepe murder, improper pruning, mower and weed eater damage, etc.)
- Plant replacement shrubs that are appropriate for space and growing conditions
- Provide funding for Annual Tree Arborist assessment and follow through with recommendations
- Maintain healthy trees and oversight according to River Bend's TREE CITY designation
- Enforce Tree City's Tree Care Ordinance that provides clear guidance for planting, maintaining, and removing trees from streets, parks, and public spaces



Volcano Mulching

Plantation Median Project

Next Steps...

- Upon Town Council approval, CAC could:
- Consult with several experts to develop options to improve road safety, better utilization of median space, and landscape replacement recommendations
- Develop priority list and estimated costs based on recommendations
- Provide phasing plan if costs need to be spread over multiple budget cycles
- Questions?