

January 25, 2016

A Special Meeting of Town Council was held on the above date at 5:00 p.m. at Sunrise Presbyterian Church, all requirements of the Freedom of Information Act having been satisfied.

Present were: Patrick M. O'Neil, Mayor
Chauncey Clark, Mayor Pro-Tem
Sarah Church, Councilmember
Mark Howard, Councilmember
Rita Langley, Councilmember
Susan Middaugh, Councilmember
Bachman Smith, IV, Councilmember

Mayor O'Neil called the meeting to order at 5:01 p.m. and stated the press and public had been duly notified. There were approximately 50 members in the audience. The purpose of the meeting was for Town Council to discuss the transition zone of the protected land management plan. Public comment would be allowed, time permitting, with the meeting to end at 7:00 p.m. Mayor O'Neil expressed appreciation to Reverend Polley and the staff of Sunrise Presbyterian Church for the use of their facility.

Mayor O'Neil gave an overview of the past discussions of the transition zone. He stated that at the last meeting, Councilmember Middaugh presented a proposal to Council, and Councilmember Clark also has a proposed plan to present this evening. He explained the graphics that were prepared by Zoning Administrator and Certified Arborist Joe Henderson, who transferred the results of the tree survey of the land. (Attachment 1). Mayor O'Neil asked Councilmember Clark to present his proposal.

Councilmember Clark's Proposal (Attachment 2): From 0-40 feet in the transition zone, three species of trees (palm, oak, and magnolia) which are 12" or greater in diameter will be saved. The underbrush, all shrubs and wax myrtles will be removed. From 40-100 feet, the palm, oak and magnolia trees would continue to be saved, plus three species of trees 10" or larger in diameter (species to be determined but none from the Firewise flammable list). There is not a reason for limiting the number of species. Looking at the data, it would not make a big difference. If the hackberries and the Firewise trees are out, there are still 10" and greater species that would not make a big difference. He continued that all species could be added back if desired, except hackberries and Firewise trees. This plan is about separating humans from the forest that could be a problem. This plan would also allow breezes to drop down from the tree tops to the houses.

Mayor O'Neil asked Councilmember Middaugh to give a brief recap of her proposal presented at the last meeting.

Councilmember Middaugh's Proposal (Attachment 3): From 0-40 feet in the transition zone, all species of trees 6" or greater in diameter will be saved. The underbrush, shrubs and wax myrtles will be removed. From 40-100 feet, all trees would remain except those on the non-native invasive species list. The underbrush and shrubs would be cleared; and also the wax myrtles if that zone is adjacent to forest land. If the 40-100 feet zone is adjacent to maritime grassland or maritime shrubland, two-thirds (2/3) of the area could be cleared of maritime shrubs and wax myrtles.

Councilmember Smith suggested a compromise for discussion of transition zones of 60-40 feet instead of 40-60 feet. This would help to address breezes and other concerns.

Councilmember Langley stated the transition zone should be a total of 40 feet.

Mayor O'Neil stated that the first plan several years ago, based on the initial recommendation, had varying depths of transition zones. The property owners adjacent to the accreted land voiced that would not give the relief they needed. The 100 foot transition zone was approved in a motion by Council a couple of years ago. Councilmember Middaugh's proposal is based on that motion, with a compromise of the 100 feet having two tiers.

Councilmember Church questioned how the removal of 2/3 of the myrtles would be determined. The plan needs to address the future also. Councilmember Smith suggested to think about this in terms of coverage of the area. It can be managed in perpetuity by talking about the area itself.

Mayor O'Neil commented that what is done initially in the transition zone might be more aggressive, with a less aggressive maintenance plan to follow.

Councilmember Clark stated according to the SC Forestry Commission, wax myrtles are dangerous. They easily spread and are difficult to manage. It is easier and cheaper to maintain a field with no wax myrtles than one wax myrtle. He believed there should not be any wax myrtles in any transition zone.

Councilmember Middaugh stated that when some wax myrtles that transition into the maritime shrubland are removed, it would provide a good study/practice area for the management of the land.

Mayor O'Neil asked other Councilmembers for their comments.

Councilmember Smith commented to not get stuck on the definition of the transition zone. This discussion is about what will happen in this area. It has not been discussed if the land beyond 100 feet will be manipulated. There is a legitimate reason to allow more manipulation of the first 100 feet because Council is tasked with the quality of life of residents. Council can be good stewards of the land past 100 feet.

Councilmember Church stated she appreciated Councilmember Middaugh's initial plan because it was a transition; however, she sympathized with Councilmember Clark's statements. She proposed to take out 75% of the wax myrtles in the 40-100 zone and make a commitment that each homeowner is allowed to maintain 75% of total coverage free of wax myrtles; 100% in the areas the plan already shows (not that the owners can do it specifically; but there is commitment).

Councilmember Howard stated the difference between the plans of Councilmembers Church and Middaugh was 9% (plans between 66% and 75%). If adjacent property owners both remove either percentage side by side, it creates the problem of a wide view corridor. The removal should be accomplished with a natural design, not just a view corridor. Horticulturally, wax myrtles are a short-lived tree, which is about 30 years. They grow a certain age and height and then die. Also, this is a transition zone to a forest; not a park in front of a forest.

Mayor O'Neil asked Councilmembers to comment on the trees being retained in the two proposals.

Councilmember Langley does not want to limit the number of species, and the hackberry trees provide food for the birds. The trees to retain should be six inches and greater in diameter.

Councilmember Smith stated he liked portions of both plans. He preferred Councilmember Clark's 0-40 proposal, and a variation of Councilmember Middaugh's 0-40 to actually be used in the 40-100 zone. The size of the tree could be compromised perhaps at a diameter of 10 inches or larger in the 0-40. And then back off of that some for the 40-100. Have smaller trees included in the 40-100, as well as shrubs that are not on the Firewise list.

Councilmember Howard expressed reluctance about the Firewise flammable list, but from personal and horticultural experience said he had not seen a forest fire other than a pine forest fire which starts from the ground. He stated the plan should have as many species as possible to create diversity. He is more interested in diversity than in diameter or limiting species.

Councilmember Langley stated she did not agree with Councilmember Clark plan's 40-100 zone because more trees 10" or larger would be cut, and no tree in any transition zone over 6" diameter should be cut.

Councilmember Church stated she is leaning toward Councilmember Middaugh's plan, although she expressed considering trees in terms of species as opposed to size, because a grand oak tree could be cut because it is too small.

Mayor O'Neil stated he is leaning toward Councilmember Middaugh's plan. He does not agree with limiting the species to remain. The diversity of vegetation is very important, and it allows the habitat to be more resilient from disease.

Councilmember Middaugh stated in her plan all sizes and species of trees would be in the 40-100 zone; only the underbrush would be cleared. All sizes and species need to be included because without young trees, a higher proportion of slower growing trees such as live oaks will be taken out. The remaining faster-growing species will distort the distribution of species in that forest.

Councilmember Langley stated she did not want to cut any trees.

Councilmember Smith stated he could agree with Councilmember Middaugh, especially because the wax myrtles would be removed next to forest land; and understood her point to leave some myrtles when it is adjacent to grassland.

Councilmember Clark reemphasized that this is a transition zone. It is not about ecology or saving species. He stated he does not understand Councilmember Howard's lack of acceptance of the Firewise flammable list, but Councilmember Clark wants to protect the houses, and more importantly, the firefighters. There should be no reason Council would put anyone in danger for an ecology reason. Safety supersedes all those issues.

Mayor O'Neil opened the floor for public comments.

Gary Visser, 2924 Middle, stated his appreciation to Council for discussing this long-standing issue. The removal of the wax myrtles is important. Councilmember Smith offered a good compromise between the two plans.

Michael Mithoefer, 407 O'Neil, stated that this cutting is not his first choice; however, he believes in compromise and respecting his neighbors. He had several concerns: 1) It needs to be addressed the way the forest seems to stop growing at the end of owners' lots because they have cut down some trees in the forest. It should be considered to replace some of those trees.

2) In addition to the views for front beach property owners, he would like the vine-covered wax myrtles as seen from the beach and beach paths cut down. 3) He believes that the results of the last election show most voters are not in favor of being more aggressive with the accreted land, and 4) The Town is being sued by people illegally cutting down trees, so he would like assurance there is a genuine attempt to compromise by both sides of this issue.

Norman Khoury, 1728 I'on Ave, stated he endorsed Councilmember Middaugh's plan because it is based on principles and science, although there is still too much manipulation.

Julia Khoury, 1728 I'on Avenue, stated she agreed with the comments of Michael Mithoefer and Norman Khoury. Diversity of trees is important, and she expressed concern about the possible removal of all wax myrtles in both zones. She also inquired what would be done about the yards that are already extended 100-200 feet.

Amy McFarlin, 1850 Flag, stated her top priority was safety, and ensuring that all fire aspects have been considered. This is an accreted environment; it is not a natural environment. Much of the dune ecology has been lost to brush and invasive species.

Luke Lewis, 2101 Pettigrew, stated Council needs to talk about safety rather than save the trees and wax myrtles. Council has been told that the wax myrtles are a fire danger, and they should be eliminated.

Tom Proctor, 1726 Atlantic, questioned how many of the proposals from Council incorporate the consultant team's study of the entire island done years ago, and suggested they take the study into consideration.

Addison Ingle, 1719 Atlantic, questioned what kind of work force would be needed to do this work in the accreted land, how much would it cost, and does the Town have the funds to do it. Mayor O'Neil responded that those issues have not yet been addressed, but they are obviously very important.

Ken Spicer, 1659 Atlantic, stated around 1993-94 the Town permitted the owners to cut the wax myrtles, and now Council is disagreeing over a few wax myrtles in the 40-100 zone.

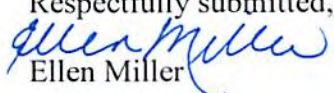
Harriett McDougal, 2429 Atlantic, stated attention should be paid to the Firewise plants list, produced by the S.C. Forestry Commission. There is a lot of forest that is not affected by the 100 foot transition zone, and property owners should be protected from danger. She stated she liked Councilmember Clark's plan. She commented that she was not cutting trees illegally as some are saying people involved in the lawsuit are doing.

Mayor O'Neil summarized the plans for further discussion at the next Accreted Land Management Plan Special meeting, to be scheduled.

- I. Remove all non-native invasives
- II. Two sub-bands: TWO ALTERNATIVES:
 - A. 0-50 and 50-100
 - B. 0-40 and 40-100
- III. **(0-50 or 0-40)**
 - A. Retain all trees ≥ 9 " DBH except cedar and pine
 - B. Remove all underbrush and shrubs including wax myrtles
- IV. **(50-100 or 40-100)**
 - A. Retain all trees regardless of size
 - 1. ALTERNATIVE: Retain all except those on "FireWise" list
 - 2. ALTERNATIVE: Retain only trees ≥ 9 " DBH
 - B. Understory and myrtles
 - 1. Adjacent to forest (clarify/define this area):
 - Clear out all understory, shrubs and wax myrtles
 - 2. Adjacent to shrubs, grasslands, other non-forest areas:
 - Initially remove 2/3 of wax myrtles current coverage
 - Suggested maintaining 2/3 of wax myrtles as
as maximum percentage of area
 - 3. ALTERNATIVE: Remove all wax myrtles

It was agreed that Bayonne Avenue will be included in the ranges of the transition zone.

Motion was made by Councilmember Smith, seconded by Councilmember Church, to adjourn at 7:20 p.m., carried unanimously.

Respectfully submitted,

Ellen Miller



Accreted Land Management Plan

TREE SURVEY 2014-2015

7

Approved at the February 16, 2016 Regular Council Meeting

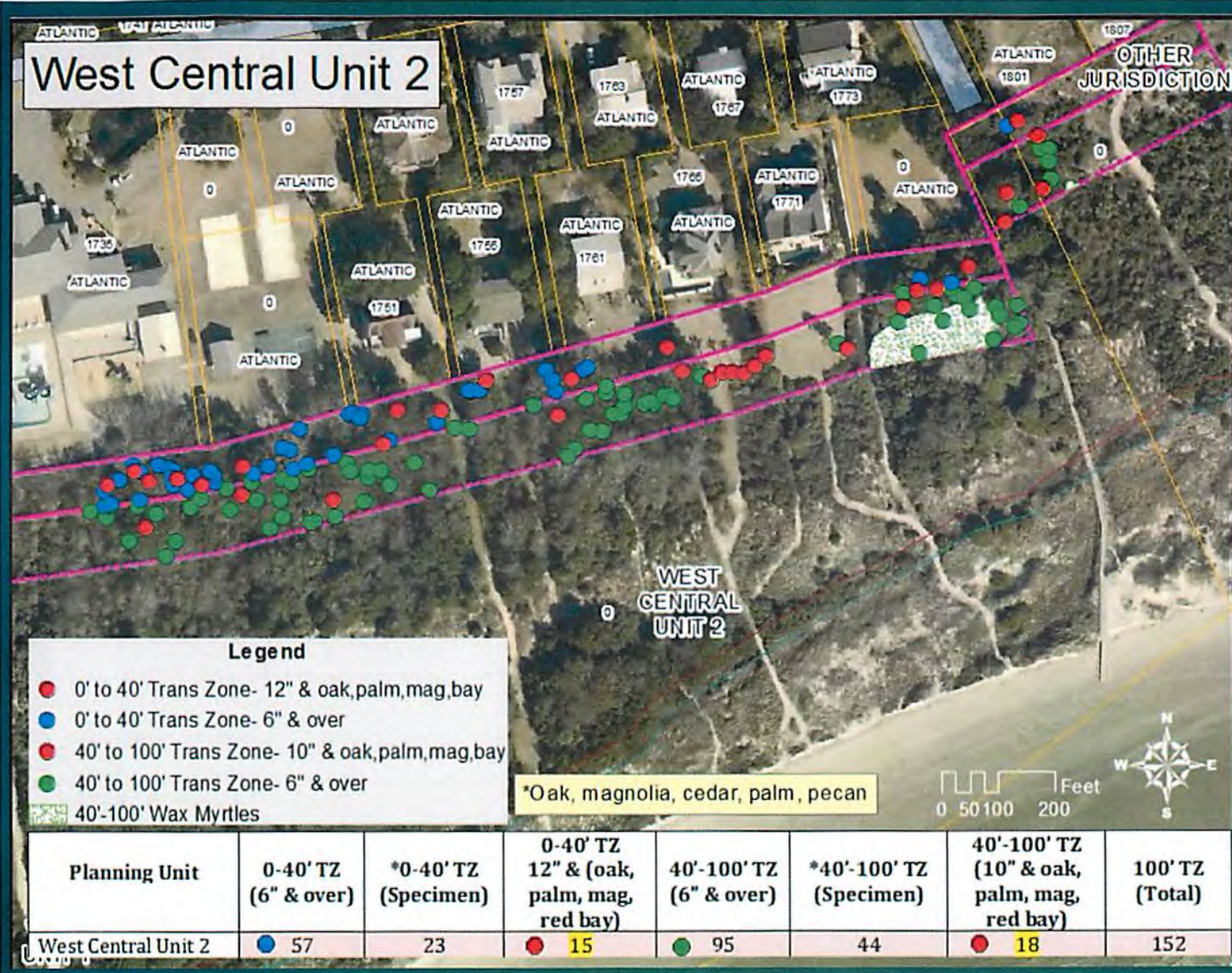
West Unit 1



| Planning Unit | 0-40' TZ (6"-Over) | *0-40' TZ (specimen) | 0-40' TZ 12" & (oak, palm, mag, red bay) | 40'-100' TZ (6" & Over) | *40'-100' TZ (specimen) | 40'-100' TZ (10" & oak, palm, mag, red bay) | 100' TZ (Total) |
|---------------|-----------------------|-------------------------|--|----------------------------|----------------------------|--|--------------------|
| West Unit 1 | 61 | 14 | 14 | 110 | 52 | 43 | 172 |

West Unit 1





West Central Unit 1

East Central Unit 3A



- Legend**
- 0' to 40' Trans Zone- 6" & over
 - 40' to 100' Trans Zone- 6" and over
 - 0-40' Wax Myrtles

**Oak, magnolia, cedar, palm, pecan

| Planning Unit | 0-40' TZ (6" & over) | *0-40' TZ (Specimen) | 0-40' TZ 12" & (oak, palm, mag, red bay) | 40'-100' TZ (6" & over) | *40'-100' TZ (Specimen) | 40'-100' TZ (10" & oak, palm, mag, red bay) | 100' TZ (Total) |
|---------------|----------------------|----------------------|--|-------------------------|-------------------------|---|-----------------|
| East Unit 3A | ● 1 | none | none | ● 1 | none | none | 2 |

East Central Unit 3A

West Central Unit 3C



Legend

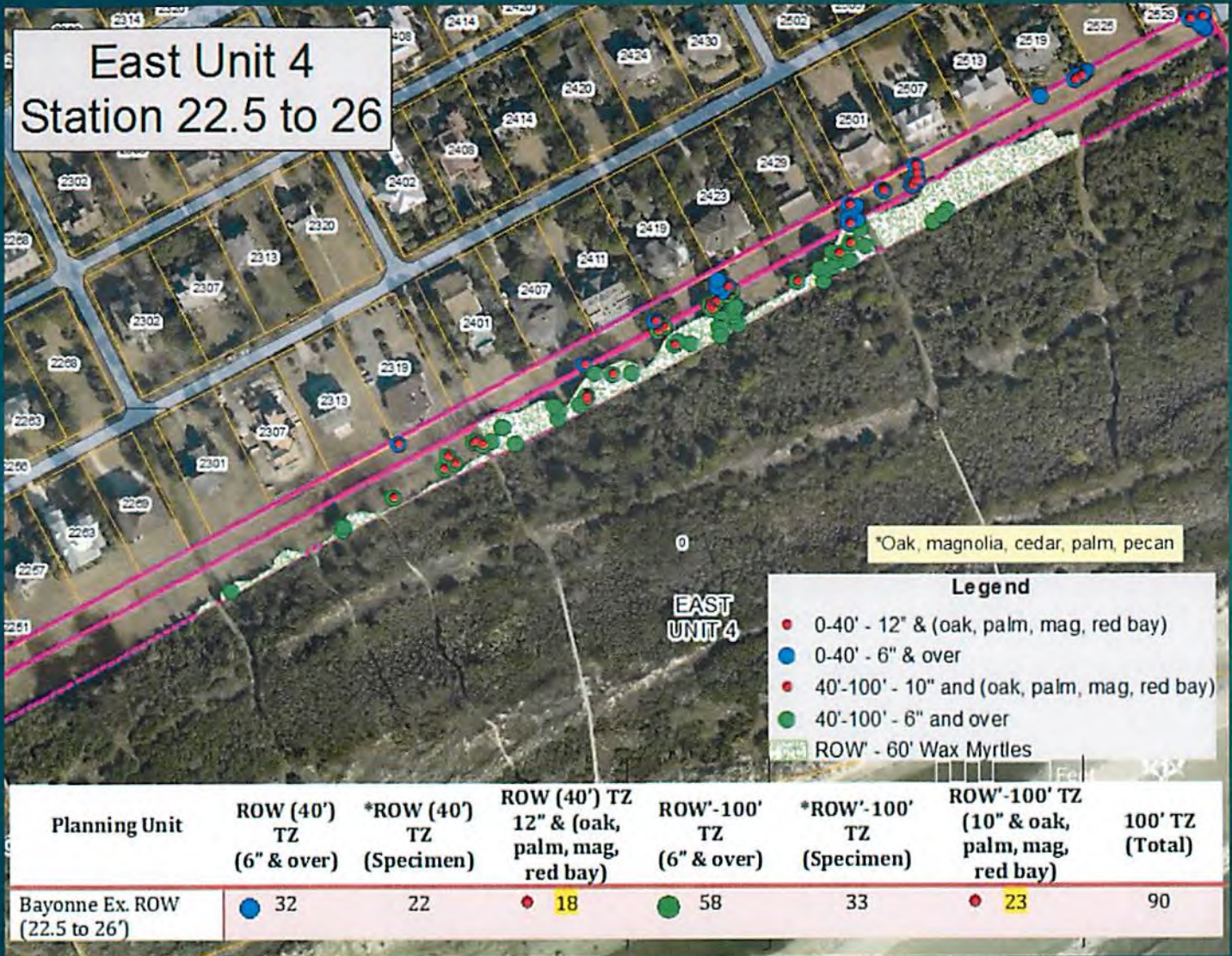
- 40' to 100' Trans Zone- 10" & oak, palm, mag, red bay
- 40' to 100' Trans Zone- 6" & over
- 40-100' Wax Myrtles

**Oak, magnolia, cedar, palm, pecan

| Planning Unit | 0-40' TZ (6" & over) | *0-40' TZ (Specimen) | 0-40' TZ 12" & (oak, palm, mag, red bay) | 40'-100' TZ (6" & over) | *40'-100' TZ (Specimen) | 40'-100' TZ (10" & oak, palm, mag, red bay) | 100' TZ (Total) |
|---------------|-------------------------|-------------------------|---|--|----------------------------|--|--------------------|
| East Unit 3C | none | none | none | ● 6 | 6 | ● 3 | 6 |

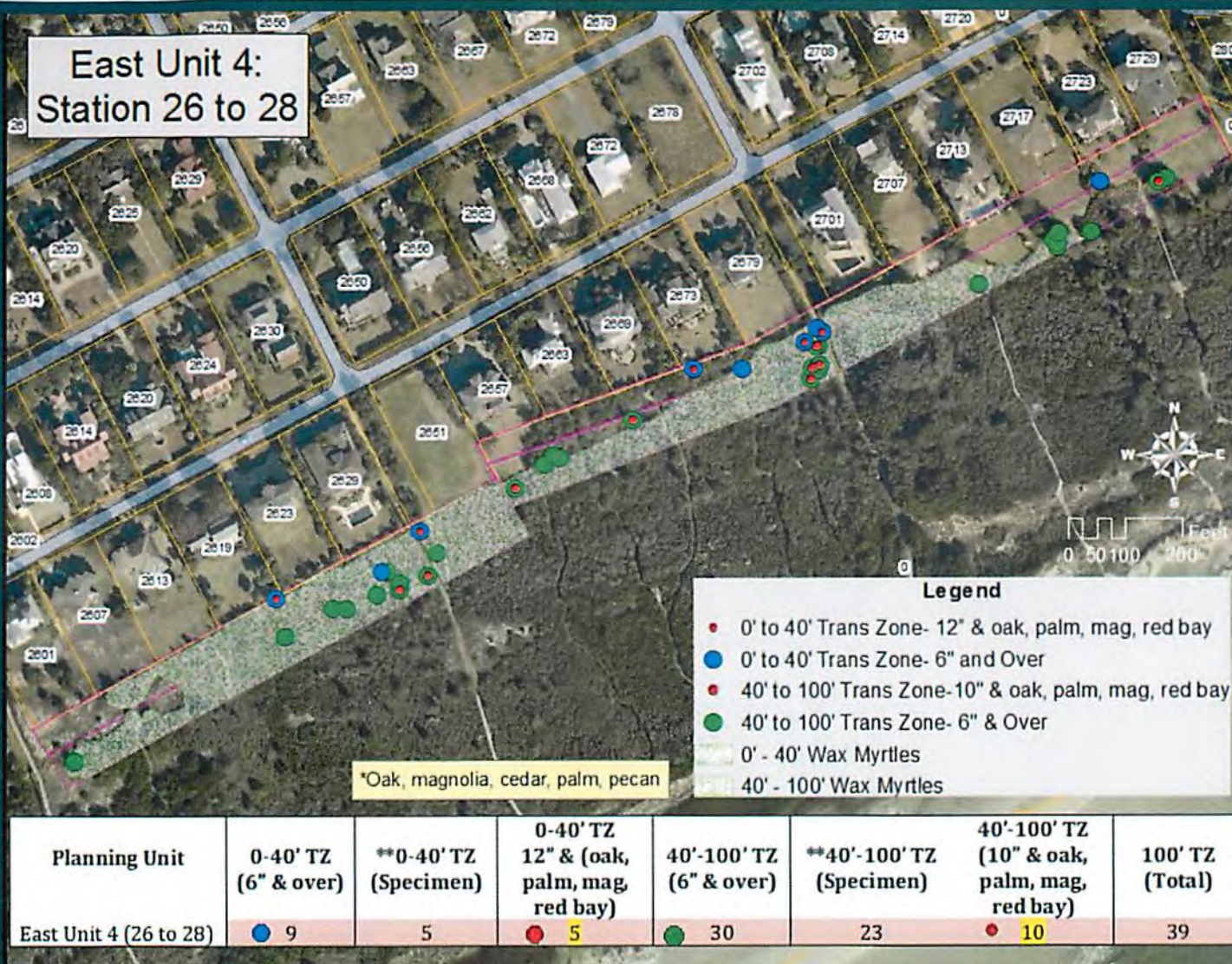
East Central Unit 3C

East Unit 4 Station 22.5 to 26



East Unit 4: Sta. 22.5 to 26

**East Unit 4:
Station 26 to 28**



*Oak, magnolia, cedar, palm, pecan

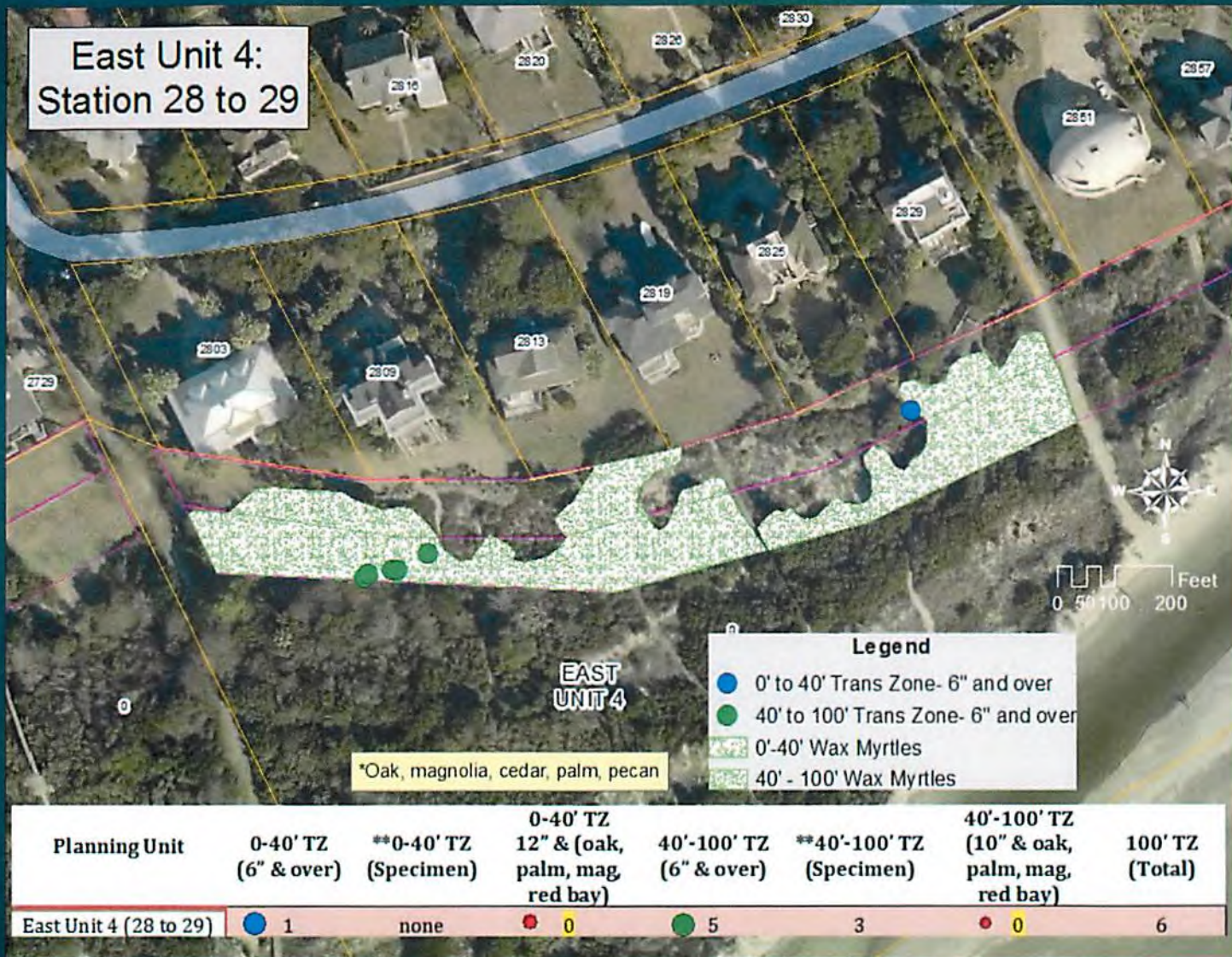
Legend

- 0' to 40' Trans Zone- 12" & oak, palm, mag, red bay
- 0' to 40' Trans Zone- 6" and Over
- 40' to 100' Trans Zone- 10" & oak, palm, mag, red bay
- 40' to 100' Trans Zone- 6" & Over
- 0' - 40' Wax Myrtles
- 40' - 100' Wax Myrtles

| Planning Unit | 0-40' TZ (6" & over) | **0-40' TZ (Specimen) | 0-40' TZ 12" & (oak, palm, mag, red bay) | 40'-100' TZ (6" & over) | **40'-100' TZ (Specimen) | 40'-100' TZ (10" & oak, palm, mag, red bay) | 100' TZ (Total) |
|------------------------|-------------------------|--------------------------|---|----------------------------|-----------------------------|--|--------------------|
| East Unit 4 (26 to 28) | ● 9 | 5 | ● 5 | ● 30 | 23 | ● 10 | 39 |

East Unit 4: Sta. 26 to 28

East Unit 4:
Station 28 to 29



East Unit 4:
Sta. 28 to 29

Clark Transition Zone Plan Proposal for 01-25-2016

This plan allows for a true Transition Zone that allows for open space for views and breezes and a set back for safety from fire, wildlife and mosquitos.

The Transition Zone will be 100 Feet, as measured from the RS-zoned lot line (0 ft.) seaward (to 100 ft.) for all units/zones and will consist of two, differently managed bands: 0-40 ft. and 40-100 ft.

0-40 feet:

- **Preserve 3 species 12" or larger. palm, oak, and magnolia**
- **Remove underbrush and shrubs, including myrtles**

40-100 feet:

- **Preserve palm, oak, and magnolia plus 3 species 10" or larger. Species to be determined but none from the Firewise flammable list.**
- **Remove underbrush and shrubs, including myrtles**

Rational for the Proposed Transition Zone Plan

The Principals for Management clearly call for:

- **"The Town to be a good steward and a good neighbor to owners of properties that abut its land."**
- **"The Town also recognizes that scenic views and breezes inside and outside the accreted land are valuable natural resources."**
- **"The town should do what it can to respect the neighbors to the accreted land while meeting its stewardship responsibilities."**
- **"The Town's management plan may include a transition or edge band that abuts privately held properties that would be managed differently from, and more aggressively than, the (usually much deeper) seaward balance of the accreted land."**
- **"The transition/edge band should be managed to further the following objectives when appropriate:**
 1. **Provision of a buffer and unwanted wildlife**
 2. **Minimization of potential fire hazard**
 3. **Enhancement of public safety**
 4. **Enhancement of breezes**
 5. **Enhancement of possible sight lines to the property seaward of the band"**

The rational for the 100 foot Transition Zone:

- **The 100 feet represents a true transition zone to accomplish the principles noted above**
- **The clearing of the underbrush to the full depth helps with all provisions noted**
- **To provide for breezes the land breeze/shore breeze open landscape of at least the 100-foot depth is required to allow the breeze to drop below the tree line to provide benefit to the front row homes as well and those in rows behind**
- **The elimination of Firewise flammable species is required to mitigate fire potential**
- **The open landscape will better allow mosquito control spray reach larvae**

The 100 Foot Transition Zone contains these coverage per measurement from the tree survey

TREE COVERAGE

| Parcel | Acres | Coverage |
|-------------------------------------|-------------|------------|
| 16 - Sand Dunes | 3.0 | 1.3 |
| Sand Dunes | 0.9 | 0.5 |
| Sand Dunes - Light house | 1.9 | 0.6 |
| Light House | 0.6 | 0.0 * |
| Light house - School | 1.2 | 0.0 |
| School | 1.4 | 0.0 * |
| School - 22 | 1.4 | 0.0 |
| 22 - 22 1/2 | 1.0 | 0.0 |
| 22 1/2 - 23 | 0.9 | 0.0 |
| 23-24 | 1.0 | 0.1 |
| 24-25 | 1.4 | 0.5 |
| 25-26 | 1.3 | 0.0 |
| 26-26 1/2 | 1.4 | 0.1 |
| 26 1/2 -27 | 0.8 | 0.1 |
| 27 - 28 | 1.4 | 0.1 |
| Total Acres of Tree Coverage | 19.6 | 3.3 |

MYRTLE COVERAGE

| Parcel | Acres |
|---------------------------------------|------------|
| 16 - Sand Dunes | 0.0 |
| Sand Dunes | 0.0 |
| Sand Dunes - Light house | 0.1 |
| Light House | 0.0 * |
| Light house - School | 0.1 |
| School | 0.0 * |
| School - 22 | 0.3 |
| 22 - 22 1/2 | 0.0 |
| 22 1/2 - 23 | 0.0 |
| 23-24 | 0.1 |
| 24-25 | 0.5 |
| 25-26 | 0.3 |
| 26-26 1/2 | 1.2 |
| 26 1/2 -27 | 0.9 |
| 27 - 28 | 0.4 |
| Total Acres of Myrtle Coverage | 3.9 |

* Not included in count

Landscaping

Can Be Attractive & **FIREWISE**

"FIRE SMART" Plant List for SC

Native and Landscape

HIGHLY Flammable Plants (Plants that will ignite faster and burn readily)

SHRUBS

- Arborvitae
- Gallberry
- Hollies
- Junipers
- Podocarpus
- Saw Palmetto
- Wax Myrtle
- Yaupon

TREES

- Eastern red cedar
- Eucalyptus
- Leyland cypress
- Pines



GROUNDCOVERS, BEDDING

PLANTS, and VINES

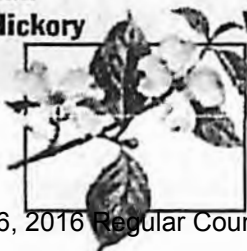
- Pampas grass
- Pine straw

Note: When living in the Wildland Urban Interface areas, it is recommended that these plants NOT be planted adjacent to any wooden structure such as house, fences, or decks. This list is NOT inclusive as other plants with similar characteristics, i.e. low moisture content, high percentage of dead limbs or are under stress, can affect their performance.

LESS Flammable Plants with some fire resistance

TREES

- Ash
- Birch
- Cherry
- Cottonwood
- Crab apple
- Dogwood
- Elm
- Hickory
- Maple
- Oak
- Plum
- Redbud
- Southern Magnolia
- Sweetbay Magnolia
- Tulip tree (Yellow Poplar)
- Willow



SHRUBS

- Azalea
- Barberry (Mahonia)
- Bottlebrush
- Boxwood
- Burning bush
- Butterfly bush
- Camellia
- Cleyera
- Crape myrtle
- Eleagnus
- Forsythia
- Gardenia
- Hydrangea
- Indian Hawthorne
- Ligustrum
- Liriope
- Loripetalum
- Mahonia
- Muhlenbergia
- Oleander
- Philodendron
- Photinia
- Pittosporum
- Privet
- Pyracantha, firethorn
- Rhododendron
- Rose
- Russian olive
- Spirea
- Spirea
- Viburnum
- Weigela
- Witch Hazel



GROUNDCOVERS, BEDDING PLANTS, & VINES

- Blue-eyed grass
- Daylily
- Dusty miller, senecio
- Honeysuckle
- Iris
- Lantana
- Periwinkle
- St. Augustine grass
- Stonecrop
- Trumpet creeper
- Yarrow
- Yellow Jessamine
- Yellow-eyed grass



Note: This list is NOT inclusive. Any plant will burn given sufficient exposure to heat. Plants suffering from moisture stress will also be less resistant to fire than adequately watered plants.

There are no fire proof plants, but some are more fire resistant than others.

These "fire smart" plants:

- Are less likely to ignite from a wildfire.
- Burn less intensely when they do ignite, and spread the fire slower.
- Are lower growing or smaller.
- Have stems and leaves that are not resinous, oily, or waxy.
- Have a high moisture content; succulent plants.
- Easy to maintain and prune.
- Have less accumulated debris and fewer dead branches.
- Have an open, loose branching pattern.
- Are drought resistant, requiring less irrigation.

Produced by the SC Forestry Commission through a Grant from the USDA Forest Service, 2005. The South Carolina Forestry Commission and the

Approved at the February 16, 2016 Regular Council Meeting

Councilmember Middaugh Proposal for Transition Zone 11-30-2015

This proposal is based on the extensive work by the LUNR Committee and Town Council members since 2009, as well as extensive discussions with current residents and fellow Council members. It is based on the desire to be a good neighbor to owners of property adjoining the Protected Land and at the same time respect the Protected Land Trust Area that is highly valued by many island residents for its great natural beauty, wildlife, recreational and educational value, and protection from storms.

The Transition Zone will be 100 feet, as measured from the RS-zoned lot line (0 ft.) seaward (to 100 ft.) for all Units/Zones and will consist of two, differently managed bands: 0-40 ft. and 40-100 ft.

0-40 feet: Preserve trees of 6" diameter and larger (species to be discussed, see below)
Remove underbrush and shrubs, including myrtles
Trees less than 6" diameter may be removed with a site plan.

The purpose of the site plan is to identify, for possible preservation, small trees of desirable species of that seldom reach 6" diameter at maturity:

Hercules Club/Toothache Tree, Black Cherry, Yaupon, Red Bay

40-100 feet: Thin vegetation to provide a transition to the Protected Land beyond.
All trees to remain (except those on the List of Non-Native Invasive Species).
Underbrush to be removed
In areas adjacent to Forested Areas: all shrubs, including myrtles, to be removed.
In areas adjacent to Maritime Grassland and Maritime Shrubland: Myrtles and Other Maritime Shrubs to be thinned to 1/3 of current coverage.

OCRM Setback Line & Baseline: In areas where the Transition Zone (wholly or in part) lies seaward of the OCRM Setback Line and Baseline (Critical Line), DHEC approval and permit will be required for removal of vegetation.

Rationale for the Proposed Transition Zone Plan

This Proposed Plan achieves the overarching goal of providing a true Transition by providing - clearly and quantitatively - for greater manipulation of the Protected Land vegetation closest to adjacent homes and lesser manipulation seaward where the TZ joins the rest of the Protected Land. This Plan also takes into account the different characteristics of the land across the four Management Units. This is accomplished by specifying two differently managed Bands within a common 100 ft. Transition Zone.

Neither of the two Transition Zones, that have been considered previously, accomplish a real transition.

The Plan for a single 100 ft. Transition Zone for all Units (approved by Council on 5-20-2014) recognized the problem of selecting a different TZ size for each of the four Units, primarily based on distance from the ocean - a factor that could vary within a Unit, overlap across Units, and change over time. No management strategy was included, but it was implied (in discussion) that management would be uniform throughout.

The more detailed LUNR Committee approach (approved by LUNR Committee on April 11, 2014) recognized the strong logic of providing for differences in management based on differences in the

Protected Land itself. This was to be accomplished by specifying a range for the Transition Zone that varied from Unit to Unit (e.g., 40 to 100 ft. for Unit 1, and 25-50 for Unit 3A and 3C). However, there was no guidance on how the management strategy might differ within this range – if at all. Instead, there was adoption of a single strategy for each Unit (e.g., manage by tree removal in Unit 1; manage as grassland for Unit 4) to be carried out uniformly *for the entire range*, and with the likelihood that the range *maximum* would apply.

The **Proposed Compromise Transition Zone Plan** combines elements of both previous approaches. It adds a practical method for providing a true transition between homes and the Protected Land, and for adapting management strategy for different areas. This is accomplished by specifying two differently managed bands of 0 to 40 feet and 40 to 100 ft. within a common 100 ft. Transition Zone.

The Rationale for selection of the 0-40 foot Band for heaviest manipulation.

- a) 40 ft. is sufficient to achieve the goals of enhancement of breezes and relief from wildlife and mosquitoes by removal of underbrush, shrubs and small understory trees. Also, 30 ft. is the defensible space recommended by the SC Forestry Service for fire management. The LUNR Committee (April 11, 2014) and the Accreted Land Management Draft Plan 3A (November, 2011), include 40 ft. in the recommended Transition Zone Ranges for all four Units. This choice acknowledges this 5+ year body of work.
- b) Rationale: 40 ft. is the typical width of a neighborhood road bed (20 ft.) plus 10 ft. ROWS (20 ft.). Island-wide, this provides open space between Residential Lots for breezes and relief from fire hazard and mosquitoes. This 40 ft. of open space allows Owls, Hawks, etc. to spot rodents and snakes crossing from a heavily vegetated lot to a neighbor's yard across the street. 40 ft. will provide the same benefit to homes adjacent to the Land Trust Area.

The Rationale for selection of a 40-100 foot Band for lighter manipulation.

- a) In forested areas, 40 to 100 ft. in which underbrush and shrubs are cleared, but no trees removed, will provide significant additional relief and enhanced forest views. This will provide a real transition to the seaward Protected Land without distorting the naturally developing mixture of tree species that belong to a Maritime Forest. It is essential that trees not be removed in this area. Trees will be younger and smaller with greater distance seaward, especially for slower growing hardwoods such as oaks. As a result, if trees are removed in the 40 to 100 ft. Band, based on diameter as in the 0 to 40 ft. Band, a higher proportion of trees will be removed, fewer large trees will remain, and species diversity will be reduced. This is the exact reverse of the desired real transition.
- b) In areas where the Transition Zone is adjacent to Maritime Grassland and Maritime Shrubland, clearing of underbrush and thinning of shrubs (including myrtles) to 1/3 of the current coverage will provide the desired relief and automatically increase native maritime grassland vegetation, which is naturally interspersed with maritime shrubs. This will provide a true transition to the Maritime Shrubland beyond. There should be no clear-cutting of myrtles and other maritime shrubs – this will simply produce a wall of shrubs at the 100 ft. line. Appropriate thinning will repair the damage done by years of cutting to 5 ft. and reinstate the natural mixture of maritime grassland, shrubs and trees.

Previously Proposed Transition Zones by Unit/Zone
(in feet, measured from private property line seaward)

By LUNR Committee April 11, 2014

By ALMP 3A Nov 22, 2011

| | | |
|---------------|-----------|-----------------------------|
| Unit 1: | 40 to 100 | 40 to 100 |
| Unit 2: | 40 to 70 | 32 to 40 |
| Unit 3A & 3C: | 25 to 50 | 23 to 40 (3A) 10 to 40 (3C) |
| Unit 4: | 40 to 100 | 40 to 100 |

By Town Council May 20, 2014 All Units 100 feet with an additional 20 feet at Council discretion.

For Discussion: Species of Trees (6" in diameter) to be preserved in the 0-40 ft. Band of the TZ

- 1) Per Zoning Ordinance, Article XVII Tree Commission, Sec. 21-158 p 78 and Sec. 21-164 p 82
Category I Trees: 16" diameter, is a "Significant" tree, needing Tree Commission Approval
Category II Trees: 6" diameter of any species (and any size Palmetto), is a "Protected" tree, and a permit is required for removal.
Category I and II trees must be replaced by the same species for
Pecans, Cedars, Oaks, Magnolias, Palmettos.

- 2) The Tree Commission also has a Protected Tree category (as part of its Approved Tree List).
These are also the species that must be replaced by the same species under Category II, above.

| | | |
|-------------------|--------------------|-------------------------------|
| Eastern Red Cedar | Southern Red Cedar | (Both are Red Cedar variants) |
| Laurel Oak | Live Oak | |
| Pecan | Southern Magnolia | |
| Palmetto | | |

- 3) Additional Trees are found in the Protected Land and contribute to the Maritime Ecosystem

| | |
|---------------|--|
| Black Cherry | Carolina Willow / Coastal Plain Willow |
| Red Mulberry | Hackberry / Sugarberry |
| Longleaf pine | Additional Oak species |

- 4) Additional Small Trees are found in the Protected Land and contribute to the Ecosystem
(All of these are on the Tree Commission Approved Tree List)

| | |
|--------------|--------------------------------|
| Yaupon Holly | Hercules Club / Toothache Tree |
| Red Bay | Carolina Cherry Laurel |
| Wax Myrtle | Groundsel Tree / Baccharis |

For Information: Size Considerations for Transition Zone

Council needs to consider more than just depth of Transition Zone; e.g., 100 ft. vs 40 ft. when making management decisions. The Total Area size, in square feet, is an important measurement of the environmental impact and the relative costs of implementation and maintenance of a Plan.

Introduced at November 30, 2015 Special Council Meeting

Calculation of Estimated Transition Zone Area:

The approximate length of the Transition Zone from Station 16 to Station 28 ½ = 2 miles
2 miles @ 5280 linear ft. per mile = 10,560 linear feet

With a 100 ft. TZ depth: $100 \times 10,560$ linear feet = 1,056,000 square feet of land Area
With 44,000 sq. ft. per acre: $1,056,000 \text{ sq. ft.} \div 44,000 \text{ sq. ft.} = 24$ acres
Converting to standard half-acre lots: $24 \times 2 = 48$ half-acre lots

With a 40 ft. TZ depth the values are $.4 \times 100 \text{ ft. values} :$ 422,400 sq. ft. of land Area
9.6 acres
19.2 half-acre lots

Conclusion: Manipulation of a 100 foot deep TZ = manipulation of 48 half-acre lots
Manipulation of a 40 foot deep TZ = manipulation of 19.2 half-acre lots

A plan with more reliance on underbrush clearance and less on tree removal will be more cost-effective.: