

January 17, 2017

Town Council
Town of Southern Shores
Southern Shores, NC 27949

Subject: Task Force Final Report

Gentlemen:

It is my pleasure to submit to you the final report of the South and East Dogwoods Task Force. The Task Force believes the report, entitled "Evaluation of South & East Dogwood Trails," responds to the charge the Task Force was given by you.

The Task Force thanks you for the opportunity to provide input on this important issue.

If you have any questions, please contact me.

Sincerely,

A handwritten signature in cursive script, appearing to read "Michael Fletcher".

Michael Fletcher
Chairman, South and East Dogwoods Task Force

Enclosure: Final Report
cc: Peter Rascoe, Town Manager
Shiela Kane, Town Clerk

EVALUATION OF SOUTH & EAST DOGWOODS TRAILS

FINAL REPORT

TOWN OF SOUTHERN SHORES

January 17, 2017

Authored by: South and East Dogwoods Task Force

TABLE OF CONTENTS

	<u>Page</u>
Table of Contents	1
Introduction	2
Major Recommendations	2
Issue – Road Rebuild	3
Issue – Long Term Maintenance and Future Improvements	5
Issue –Walkway	5
Issue – Physical Survey	8
Issue – Seasonal Cut-Through Traffic	9
Conclusions	11
<u>Appendices</u>	
Table 1 – Options for Bridge Closure	12
Attachment 1 – Task Force Members	13
Attachment 2 – Charge to Task Force	13
Attachment 3 – Task Force Procedures	14
Attachment 4 – Survey Results	14
Attachment 5 – TOSS Police Department Accident Data	14
Attachment 6 - Southern Shores Rebuild Standards	15
Attachment 7 – Walkway Drawings	15
Attachment 8 - Solutions Workshop Results	15
References	16

EVALUATION OF SOUTH & EAST DOGWOOD TRAILS

FINAL REPORT

INTRODUCTION

The South and East Dogwoods Task Force (i.e., Task Force) was established by the Southern Shores Town Council. The Council appointed an independent selection committee to solicit applications and choose the nine-member Task Force. Membership on the Task Force was open to any full-time Southern Shores resident who chose to apply. The Selection Committee completed its work in September 2015, and the nine-member Task Force began work in October of 2015.

The Task Force (Attachment 1) was charged (Attachment 2) to provide a report to the Town Council regarding issues of vehicular and pedestrian safety, any future street improvements, and long-term maintenance of South and East Dogwood Trails. The report was to identify any issues and possible solutions for these topics through the Task Force's research and input from Southern Shore's property owners. The Task Force could also include any other issues it may identify regarding these two streets. The procedures and processes the Task Force used to address this charge can be found in Attachment 3.

It should be noted that other than providing the initial charge to the Task Force, the Southern Shores Town Council did not interact with or provide additional directions to the Task Force.

MAJOR RECOMMENDATIONS

Although there are a number of recommendations presented in this report, the major recommendations are:

- During road rebuilds, tree removal and stormwater infrastructure construction should be held to the minimum necessary.
- A walkway should be completed for the entire length of South and East Dogwood Trails.
- A physical survey should be completed for the entire length of South and East Dogwood.
- The Dick White Bridge should be closed to all motorized vehicles, with the exception of emergency vehicles, on weekends from 7:00 AM to 6:00 PM from May 15 – September 15 to largely resolve the issue of seasonal cut-through traffic on the Dogwoods.

Additional recommendations can be found in the corresponding Issue sections of this report.

ISSUES AND RECOMMENDATIONS

Issue – Road Rebuild

When Southern Shores was developed, a survey of roadways and lots was completed. Then roads were paved within the surveyed roadways. During paving, the macadam (i.e., a heated mixture of tar and gravel applied to the surface of a road) was laid over the sand, on a clay base, or on a compacted gravel base. As these roads come to the end of their useful lifespans they must be rebuilt.

During the issue development phase several issues (e.g., tree cutting in the right-of-way and new stormwater infrastructures) and suggestions related to the road rebuild effort were identified.

One suggestion was to upgrade (i.e., where possible widen, pave and straighten) South and East Dogwood Trails. The reasoning behind this suggestion was that these upgraded streets would permit a quicker and easier passage for local and seasonal cut-through traffic which would greatly reduce traffic backups on these streets. Such a change would fundamentally change the character of Southern Shores. These upgrades are not under consideration by the Town and the resident survey data suggests that such a change is not supported by Town residents.

In small communities, narrow streets/roads are generally considered safer than wider roads. Most of the streets in Southern Shores are already considered narrow (i.e., 18 - 20 feet wide). Currently the Town does not plan to widen any street during the road rebuild process. The exception to this policy is that a road may be widened to permit easier passage of emergency vehicles (i.e., fire trucks and ambulances).

A majority of the Town's residents who responded to the Task Force's survey (Attachment 4) enjoy the character of South and part of East Dogwood Trails. The sections of South and East Dogwood Trails that are enjoyed the most are the relatively narrow, winding roads with overhanging trees. It reminds people of a small town setting and not a suburban setting with wider and straighter streets. The Task Force believes that the special character of Southern Shores be considered in the road design process. For example maintaining narrow road widths and minimizing curbing.

Among the issues raised about this type of roadway is the safety of drivers and pedestrians due to the narrowness and winding of the roadway. Drivers felt that it is safe to drive on these sections of the South and East Dogwood Trails. Pedestrians believed that in the same sections of the roadway, it was unsafe to walk, run or bicycle so they refrained from doing so. Some bicyclists indicated they will still use the street. Therefore appropriate signage should be used to alert drivers to the possibility of bicyclists using the roadway. For example, "Share the Road" or "Bicycles May Use Full Lane" signs could be installed along South and East Dogwood Trails.

The Task Force felt that there are no significant vehicular safety issues for these sections of the roadways. However, the Task Force felt that something should be done to improve safety of the walkers, runners and bicyclists.

During the ongoing road rebuild the Town has been clearing its right-of-way of brush and trees if within four feet of the hard surface of the roadway. This is being done to improve driver safety. As previously stated, drivers already consider South and East Dogwood Trails safe. Studies by the Town's Police Department show that driving on these sections of South and East Dogwood Trails is safe (see Attachment 5). In addition, many residents in these areas feel that brush and tree cutting is significantly degrading the character of the roadway. The Task Force found no convincing evidence that a four foot clearance on both sides of South Dogwood and parts of East Dogwood was necessary for safety or other purposes.

Stormwater runoff on South and East Dogwood Trails seems to vary with reference to the dune crest. Stormwater runoff on South and the sections of East Dogwood Trails west of the dune crest is generally minimal. Stormwater runoff on East Dogwood Trail east of the dune crest appears to be more significant. This is likely related to the larger roadway surface area where stormwater is not absorbed.

Recommendations

- MAJOR RECOMMENDATION - During road rebuilds, tree removal and stormwater infrastructure construction should be held to the minimum necessary. (This recommendation is to provide emphasis to current Town guidelines.)
- The Town should continue its policy of not widening roads unless emergency vehicles cannot gain access to their desired location.
- Current stormwater runoff patterns should be considered before any new stormwater infrastructure is built.
- Consider the special character of Southern Shores in the road design process.
- Decisions regarding tree removal, land disturbance, and beautification within the right-of-way should include ongoing discussions with affected homeowners and professional consultants such as an engineer, architect, landscape architect and to achieve the best possible outcome for beauty and function.
- Install signage on South and East Dogwood Trails that warns motorists that bicyclists may be using the roadway.
- Recommendations related to the walkway issue should be considered in conjunction with these recommendations.

Issue – Long Term Maintenance and Future Improvements

A long term maintenance program for South and East Dogwood Trails should consist of selective trimming/cutting within the Town's street right-of-way, removing tree roots that are impacting roadways, filling potholes before they get too large, and erosion control. Currently, streets are rebuilt on a priority system with the worst sections being rebuilt first. The Task Force believes this to be a good system for ranking road rebuilds and that this system should continue into the future. Therefore, it is expected that South and East Dogwood Trails will be rebuilt in sections.

Southern Shores has adopted its own design standards for street rebuild projects (Attachment 6). These standards incorporate some NCDOT standards by reference while other standards vary significantly from NCDOT standards. Examples of these significant variations in standards include the standard for right-of-way distances to be cleared next to the hard road surface and the flexibility to preserve vegetation. The Town's standards, with some recent revisions, have been in place for almost a decade.

Recommendation

- Develop a long term maintenance program specific for South and East Dogwood Trails and some of their feeder streets that takes into account the residents desire to maintain the existing character.

Issue –Walkway

A number of the streets in Southern Shores are narrow and densely lined with trees and shrubs. Many of these streets have also been winding with some changes in the topography. These narrow, winding and rolling streets are seen as part of the character and uniqueness of Southern Shores by many residents and visitors. This is especially true for sections of South and East Dogwood Trails and their feeder streets. Although community expectations favor maintaining this historical character of the neighborhoods they also want a paved walking path beside these streets.

In the Task Force's survey of residents (431 responses), several questions were asked about the safety of pedestrians, bikers, and drivers on South and East Dogwood Trails. The majority of respondents agreed or strongly agreed that they did not feel safe walking or biking on the South and East Dogwood Trails (239 of 428 answers). A larger majority of respondents agreed or strongly agreed that a walking path should be added along the South and East Dogwood Trails (276 of 423 answers). Responders were more evenly split over whether the South and East Dogwood Trails should be widened to accommodate walkers and bikers. This was echoed in the Survey where a large number of attendees wanted some form of a paved path. Currently, north of the Town cemetery there is no walking path and people who like to walk and run must do so on the street which is perceived as dangerous. When asked what type of a paved path they

wanted they were generally supportive of a five-foot wide meandering walkway instead of the wider ten to twelve-foot multiuse path.

The Task Force is supportive of the construction of a continuous walkway along the South and East Dogwood Trails. For purposes of this report, the Task Force is using the term “walkway” to mean a five foot wide paved area (unless a wider path is specified) to run beside South and East Dogwood Trails.

A path, 10 to 12 feet wide, also known as a bike path or multiuse path, is impractical given the narrowness of the right of way, the closeness of homes to the current road surface, and the additional trees that would have to be removed. A wider multi-use or bicycle path on East Dogwood, on the east side of the dune, is more practical but to be truly worthwhile it should connect to existing or future paths in Southern Shores and adjacent communities.

The Task Force feels that any walkway along South and East Dogwood Trails should incorporate the elements of a greenway to maintain the environmental and scenic qualities that exist currently. A greenway can be defined as a linear interconnecting park, a strip of land near an urban area set aside for recreational or environmental use, or any scenic trail or route set aside for travel or recreational activities. A study by the University of Massachusetts discusses a greenway’s significance in maintaining environmental quality and increasing aesthetic values, livability and quality of life.

The walkway should wind its way in and around the trees to save as many trees as possible (Attachment 7). Also, the topography of the natural environment should be maintained to the extent possible.

The new walkway should start at the end of the current concrete walkway at the north end of the Town cemetery on South Dogwood Trail and continue to the Southern Shores Civic Association (SSCA) dune crossover at the eastern end of East Dogwood Trail. The walkway should be contiguous (i.e., on one side of the street) if possible, even though it may not be possible given the location of the existing road surface within the right-of-way. If the path is non-contiguous, pedestrian crosswalks should be used to connect the walkway. Some retaining walls, ramps and slight roadway realignment may be necessary under extreme conditions. Most of the seemingly difficult grade conditions can be overcome with creative and proper engineering and/or design.

When considering the building of a walkway, it is necessary to be aware that South Dogwood Trail and the western section of East Dogwood Trail are in many ways quite different from East Dogwood Trail on the east side of the dune. West of the dune crest, South and East Dogwood Trails are narrower, winding and tree lined. East of the dune crest, the East Dogwood Trail right-of-way and the roadway are wider. The roadway is divided by a central planted median, a relatively narrow walkway is painted on the southern edge of the east bound lane.

Because of the width of the right-of-way on East Dogwood Trail (east of the dune’s crest), walkways could be constructed on both sides of the roadway. The walkways should be 8-10 feet

wide to accommodate more seasonal foot traffic since it is a beach access street. The walkway on the north side of the street should be built from Hillcrest to the intersection of East Dogwood Trail and NC 12 where a crosswalk from the north side to the south side of the street should be painted. The walkway on the south side of the roadway should be a continuation of the proposed walkway coming from the west side of the dune.

Major safety improvements must also include larger pedestrian refuge areas on the east and west sides of the intersection of East Dogwood Trail and NC 12 so groups of beach goers can safely wait to cross. Planning and design of the Rte. 12 and East Dogwood Trail stormwater mitigation project should either be integrated with the recommended pedestrian refuge area or the project should allow for a future addition of such a refuge area. In addition, there should be a marked pedestrian crossing on Ocean Blvd at the crossing point to the SSCA dune crossover, even if the entire walkway is not approved.

For safety, the walkways on both South and East Dogwood Trails should be separated from traffic by at least a three to six foot wide grass swale. If the space available is less than three feet, a protective curb should be installed for safety reasons. It should be noted that some curbing could increase the volume of stormwater runoff.

Small flowering trees should be planted where practical to aesthetically enhance the walkway improvements. Planting South and East Dogwood Trails' namesake tree would be both appropriate and aesthetically pleasing.

Recommendations:

- MAJOR RECOMMENDATION - A walkway should be completed for the entire length of South and East Dogwood Trails.
- The walkway should connect to the current path at the north end of the cemetery on South Dogwood and end on East Dogwood at the Southern Shores Civic Association (SSCA) crossover.
- The walkway should be five feet wide and be designed to contain the elements of a greenway.
- The walkway should be separated from the road by a green space three feet to six feet wide. If the space available is less than three feet, a protective curb should be installed for safety reasons.
- The walkway should meander among the trees thereby limiting the number of trees to be removed.
- The walkway should, where feasible, follow the grade of the land.
- The walkway should be contiguous if possible.

- A pedestrian crosswalk should be used to connect the walkway if the walkway is non-contiguous.
- All pedestrian crosswalks should be clearly marked, including the crossing at East Dogwood Trail and Ocean Blvd.
- Retaining walls, ramps and roadway realignment should be considered under extreme conditions.
- The existing sidewalk from the Route 158/South Dogwood intersection to the school should be improved in accordance with the above recommendations.
- For safety, the East Dogwood Trail walkways, from Hillcrest to NC 12, should be on both sides of the road and be at least five feet wide.
- Provide school bus pick-up and drop-off waiting areas. Bike racks, a bus stop size shelter, and benches should also be provided to accommodate both school buses and pedestrians, especially at the bus stop on Holly, Beechtree and Bayberry Trails and East Dogwood.
- Construct pedestrian refuge areas, large enough to safely accommodate 10-15 beachgoers, on both sides of the East Dogwood and NC12 intersection.
- Appropriate signage should be installed on South and East Dogwood Trails to alert drivers to roadway bicycle use.
- Plant small flowering trees where practical to aesthetically enhance walkway improvements.
- Involve residents in the walkway design process, especially in those walkway sections adjacent to their properties.

Issue – Physical Survey

As described above, Town residents identified several concerns associated with the current road rebuild process (e.g., tree removal, stormwater infrastructure construction and roadways may not have been constructed in the center of the right-of-way, many of the right-of-way and lot corner markers have been lost or destroyed, and the fate of irrigation systems and flower beds that residents have built in the Town’s roadway right-of-way. These conditions can and have caused confusion and sometimes anger when a road rebuild is conducted.

To aid in planning and decision making, a physical survey (including roadway right-of-way and large tree location) should be completed as one of the first steps in any road rebuild and the first step in designing and constructing a walkway along South and East Dogwood Trails. It should be noted that a preliminary recommendation supporting the need for a complete physical survey

was presented to the Southern Shores Town Council in June 2016. It has since been approved by the Council and is in the process of being executed.

Recommendation

- MAJOR RECOMMENDATION - A physical survey should be completed for the entire length of South and East Dogwood Trails.

Issue – Seasonal Cut-Through Traffic

Seasonal traffic volume (i.e., “cut through traffic”) has been an issue in Southern Shores, and specifically on South and East Dogwood Trails, for many years. During the Task Force’s information gathering phase, we collected information on the Town’s past efforts to identify viable ways to reduce traffic flow through the residential portions of the Town. Past and continuing efforts to mitigate the inconvenience caused by heavy traffic flow, both by tourist and locals, have been hampered by the fact that possible solutions being considered are often not within the control of the Town.

The level of concern about seasonal traffic voiced by the Town’s residents during the information gathering phase was so striking that the Task Force thought it imperative to explore the issue further despite the frustration generated by the knowledge that previous efforts had not been successful. The concern about the volume of seasonal traffic was evident both in the survey results as well in the many comments attached to the survey.

While it can be argued that a speed limit reduction would reduce cut-through traffic to some degree, there is no convincing evidence to that effect. We believe that reducing the speed limit is not justified on streets already deemed safe for vehicular traffic by accident data and a majority of Town residents. Also, once the roadways are jammed due to the volume of traffic, speed becomes a moot point.

The Task Force held a public workshop that provided very good input and suggestions for decreasing and or managing seasonal traffic volume. Several of the suggestions are listed below:

- Reduce the speed limit to 15 mph.
- Place “removable” stop signs at each intersection.
- Have Town Police patrol more frequently to reduce traffic violations, direct traffic and assist residents in getting out of their driveways.
- Place speed bumps of various types along the most heavily traveled routes.
- Have the Town sponsor a series of “street fairs” that close the roads on weekends.
- Close a bridge on either South or East Dogwood Trails during tourist season weekends.

Of all of the ideas the Task Force considered, we felt that the idea of closing a bridge held the most promise for greatly reducing cut through traffic.

It is within the power of the Town to temporarily close streets without impacting Powell Bill funding (i.e., those State funds received for road and bridge repair). If these temporary street closures are applied to roadways where bridges are located, this would in effect create a cul-de-sac on either end of the bridge. The bridge traffic at the time of street closure should be limited to pedestrians and bicycles. The temporary barriers creating the closure should be easily moveable to allow emergency vehicles to quickly pass over the bridge.

The Task Force evaluated the pros and cons of four different levels of closure. This information is shown in abbreviated form on Table 1 in the Appendices.

In the Task Force's opinion, the most viable solution to eliminate cut through traffic is to close the Dick White Bridge for the period of heaviest traffic volume on weekends during the tourist season (Option 1 in Table 1).

While the Task Force understands that the recommendation to close the Dick White Bridge will be controversial, we have exhaustively examined prior recommendations and found no other solution that would solve the issue of seasonal traffic volume on South and East Dogwood Trails. In addition, the Task Force believes that both the volume and level of concern about seasonal cut-through traffic volume warrants this recommendation.

Although not part of this study, it would be amiss not to mention potential side effects of the temporary closures of the Dick White Bridge. It is reasonable to assume that cut-through traffic will seek other routes through Southern Shores to bypass the heavily congested parts of NC 12. It is impossible at this point to determine whether such rerouting of traffic would prove to be too burdensome given that Juniper/Trinitie, Chicahauk, Porpoise Run, Dolphin Run, East Dogwood Trail, Sea Oats, Wax Myrtle, and Hillcrest routes already see some heavy cut-through traffic.

Monitoring of South and East Dogwood Trails, their side streets and all cut-through routes should be conducted to determine if the bridge closure is working as intended and not causing additional problems on other cut-through routes. This will help determine if any adjustments need to be made.

Recommendations

- **MAJOR RECOMMENDATION** - The Dick White Bridge should be closed to all motorized vehicles, with the exception of emergency vehicles, on weekends from 7:00 AM to 6:00 PM from May 15 through September 15 to largely resolve the issue of seasonal cut-through traffic on the Dogwoods.
- The Town should provide an opportunity for Southern Shores residents impacted by such a bridge closure to make their opinions known before a final decision is made by the Town Council.
- Monitoring of South and East Dogwood Trails, their side streets and all cut-through routes should be conducted to determine if the bridge closure is working as intended and not causing additional problems on other cut-through routes.

Conclusion

The Task Force believes that this report addresses the items in its charge and will provide the Town Council with the necessary information to develop a specific plan for South and East Dogwood Trails.

Table 1 – Options for Bridge Closure

Options for Bridge Closure		
Solution Option	Pros	Cons
<p><u>Option 1</u> Daily Closure on Sat – Sun 7:00AM – 6:00PM only during the “tourist season” (May 15 – September 15).</p>	<p>Lowest impact on travel route options for residents.</p> <p>Cut-through traffic eliminated on South and North Dogwood and greatly reduced on East Dogwood during closure times.</p>	<p>Most potential for resident driver confusion regarding closure times.</p> <p>Cut-through traffic outside of closure times will continue.</p> <p>Has most logistical cost (placing and removing temporary barriers on Saturdays & Sundays).</p>
<p><u>Option 2</u> Weekend Closure during Season</p>	<p>Modest impact on travel route options for residents.</p> <p>Cut-through traffic eliminated on South and North Dogwood and greatly reduced on East Dogwood during closure times.</p>	<p>Some potential for driver confusion regarding closure times.</p> <p>Cut-through traffic outside of closure time will continue.</p>
<p><u>Option 3</u> Seasonal Closure</p>	<p>No driver confusion after initial implementation.</p> <p>Moderate to high impact on travel route options for residents.</p> <p>Cut-through traffic eliminated on South and North Dogwood and greatly reduced on East Dogwood during season.</p>	<p>High impact to school bus routes, trash and recycle service, mail and package deliveries.</p> <p>Cut-through traffic outside of closure time will continue.</p> <p>Moderate to high impact on travel route options for residents.</p>
<p><u>Option 4</u> Permanent Closure</p>	<p>Cut-through traffic eliminated on South and North Dogwood and greatly reduced on East Dogwood.</p> <p>No driver confusion after initial implementation.</p> <p>Dick White Bridge can be turned into a micro-park.</p>	<p>High impact to resident travel route options due to permanent change to traffic pattern.</p> <p>High impacts to school bus routes, mail deliveries, and trash and recycle service.</p>

Attachment 1 – South and East Dogwoods Taskforce Members

<u>Name</u>	<u>Address</u>
Richard Bell	South Dogwood Trail
Jim Conners	Duck Woods Drive
Tom Craney	East Dogwood Trail
Dan Dwyer	North Dogwood Trail
Michael Fletcher	Woodland Drive
Mary Keith Lilly	Wood Duck Court
Maureen McGrath	South Dogwood Trail
Shirley Ruff	Chicahawk Trail
Sam Williams	Pudding Pan Lane

Attachment 2 - Charge to the South and East Dogwood Trails Taskforce:

Members of the South and East Dogwood Trails Task Force of the Town of Southern Shores have now been officially appointed by the Town Council. It should be clearly understood the Council itself has no current plans in place for South and/or East Dogwood Trails. Other than this charge to the Task Force, the Council will not direct the Task Force in its work.

The charge to this Task Force is to solicit input from property owners of Southern Shores and develop a report to the Town Council specifically regarding issues of vehicular and pedestrian safety, any future street improvements, and long-term maintenance of South and East Dogwood Trails. The report should include data collected from the property owners, and any examples and recommendations of viable solutions. The Task Force may also include other issues it may identify regarding these two streets. The report will provide the Town Council has the necessary information to develop a specific plan for the Town.

This Task Force is encouraged to consider all reasonable and feasible options, including the - impacts on adjacent landowners. Town staff is available as a resource to the Task Force, and will pursue other resources the Task Force considers necessary to perform its work.

Attachment 3 - Task Force Procedures/Process

From the beginning, as a guiding principle, the Task Force strove to keep the process and results open and transparent to the Town's residents. As a result, the Task Force meetings were open, a Facebook page was established, and periodic reports were made to the Town Council. The Town staff were of great assistance during this time. This assistance was in the form of funding for such things as the survey, inserting the Task Force's updates in the bi-weekly Town newsletter, and providing links to Task Force information on the Town Website.

Initially the Task Force identified some issues facing South and East Dogwood Trails. This was accomplished by the Task Force through a basic understanding, of the issues facing the South and East Dogwoods, as well as research and brainstorming. Through this process, the Task Force identified what was thought to be the major issues. These included: modification of road rebuild standards, the need for a continuous walkway along both South and East Dogwood, summer weekend cut thru traffic, and a need for a comprehensive physical survey from the beginning of South Dogwood to the eastern end of East Dogwood.

To obtain feedback on the Task Force's preliminary thoughts, a survey was made available to the Town's residents. The survey determined the relative priorities of the issues identified by the Task Force and elicited feedback from Town residents on any other issues that the Task Force had missed. The results of the survey can be found in Attachment 4. The survey confirmed that the Task Force had identified the major issues facing the South and East Dogwoods, identified the relative priorities of the issues, and did not identify any new significant issues.

The next step in the process was to identify viable solutions to the problems related to the major issues. A workshop for Town residents was held by the Task Force after additional research and brainstorming was conducted. The purpose of the workshop was to identify possible solutions for the problems of each issue. The workshop resulted in a number of viable solutions (Attachment 8). Many of these proposed solutions are included in the discussion sections of this report.

Attachment 4 – Survey Results

“Dogwood Taskforce Survey Results,” Town of Southern Shores Document

Attachment 5 – TOSS Police Department Traffic Counts

2015 Southern Shores Traffic Counts <http://southernshores-nc.gov/wp-content/uploads/2015/10/TOSS-Police-Department-2015-Traffic-Count-Averages.pdf>

Attachment 6 - Southern Shores Rebuild Standards

<http://southernshores-nc.gov/wp-content/uploads/2015/02/Town-of-Southern-Shores-Street-Rebuild-Standards1.pdf>

Attachment 7 –Walkway Drawings

“Walkway Drawings,” Town of Southern Shores Document

Attachment 8 – Solutions Workshop Results

Walkway

- Walkway separate from road with green space through trees.
- Flexibility in response to terrain.
- No sidewalks – reduce speed limit
- Narrow walking path – 5’
- Save trees
- Move path from one side to other to avoid going close to houses
- Path down center of East Dogwood
- Establish replanting program
- Widen street to include road way & path

Road/Traffic

- Lower speed limit in season
- Speed bumps – removable
- Close roads at certain times
- Close bridge – locals have a pass
- Enforce speed limit
- Stop signs at every side street
- Use cameras
- Close intersection of East, North, and South Dogwood – make Dogwoods a dead end.
- On Saturdays in the summer, hold events on Dogwood.
- Flashing no through traffic signs

References

2012 Land Use Plan <http://southernshores-nc.gov/wp-content/uploads/2012/07/8-30-12CertifiedAdoptedLandUsePlan.pdf>

2015 Southern Shores Traffic Counts <http://southernshores-nc.gov/wp-content/uploads/2015/10/TOSS-Police-Department-2015-Traffic-Count-Averages.pdf>

Anne Arundel County “Neighborhood Traffic Control Guidelines”
<http://www.aacounty.org/dpw/highways/neighborhoodtraffic.cfm>

BikeWalk NC, Safe Passing Principles and Law, including North Carolina Statutes, Sec. 20-150

Budgetary Ordinance http://southernshores-nc.gov/wp-content/uploads/minutes-agendas-newsletters/Town-Ordinance_2015-07-01.pdf

Capital Street Improvement prioritization for FY 2015-2016 as recommended by the Southern Shores Capital Improvement Planning Committee

“City of Sunnyvale Neighborhood Traffic Calming” Sunnyvale California”,
<http://sunnyvale.ca.gov/Portals/0/Sunnyvale/DPW/Transportation/SVale%20Traffic%20Calming.pdf>

Design Standards <http://southernshores-nc.gov/wp-content/uploads/2014/12/Rebuild-Guiding-Design-Standards.pdf>

“Dogwood Cut-Through Task Force Suggestions,” Town of Southern Shores document

“Dogwood Taskforce Survey Results,” Town of Southern Shores Document

Drive Michigan Safely “Speed Control in Residential Areas”, <http://library.ite.org/pub/e271b7f3-2354-d714-518b-58ef17953fd3>

Excerpt from National Association of City Transportation Officials on lane widths. It backs up our statements that narrower streets promote slower driving speeds.

Greenways Inc., Benefits of Greenways (Greenways.com/benefits-of-greenways)

Institute of Transportation Engineers, Traffic Calming, Chapter 1: Introduction

North Carolina Department of Transportation, Stormwater Best Management Practices Toolbox, Version 2, April 2014

North Carolina Department of Transportation Roadway Design Manual (Rev. Date 7/22/13)

North Carolina General Statutes, Open Public Meetings, Section 143.

North Carolina Guide to Open Government and Public Records, North Carolina Attorney General's Office and North Carolina Press Association.

North Carolina Open Government Coalition, Open Meetings Law (see ncopengov.org)

Pedestrian and Bicycle Information Center, The Truth about Lane Widths, The Influence of Lane Widths on Safety and Capacity: a summary of the latest findings.

Prioritization of Projects <http://southernshores-nc.gov/wp-content/uploads/2015/06/April-21-2015-Capital-Street-Prioritization-for-fy-15-16.pdf>

“Roadway Elements & Cut-Through Traffic”, Town of Southern Shores document

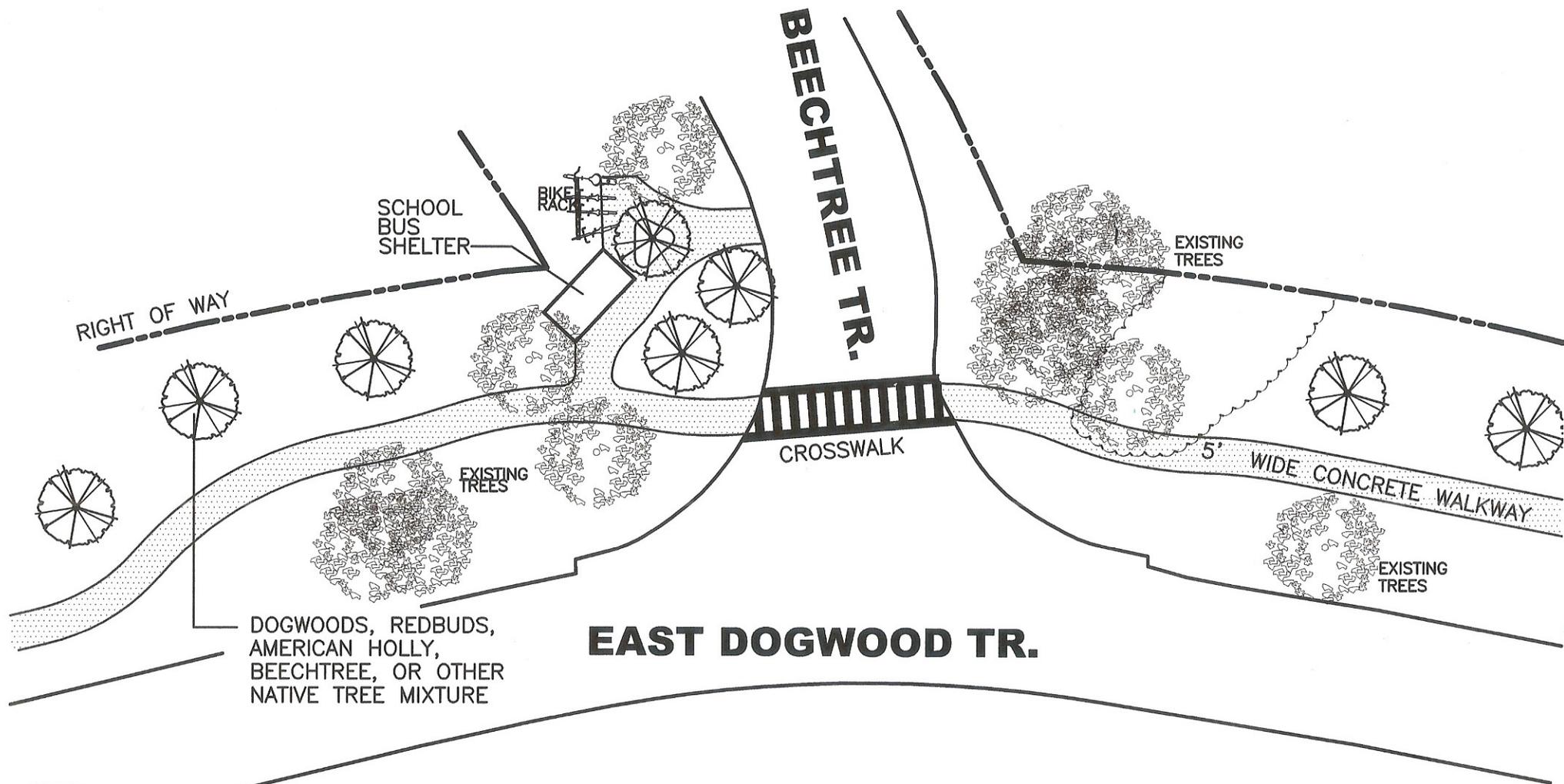
“Roles & Responsibilities by Road Class or Type”, Town of Southern Shores document

Southern Shores Bicycle, Pedestrian Plan <http://southernshores-nc.gov/draft-comprehensive-bicycle-pedestrian-plan/>

“Southern Shores: The First Decade, 1946-56” by David Stick

University of Massachusetts: New England Greenway: Greenway Definition (umass.edu/greenway/Greenways/2GR-def.html)

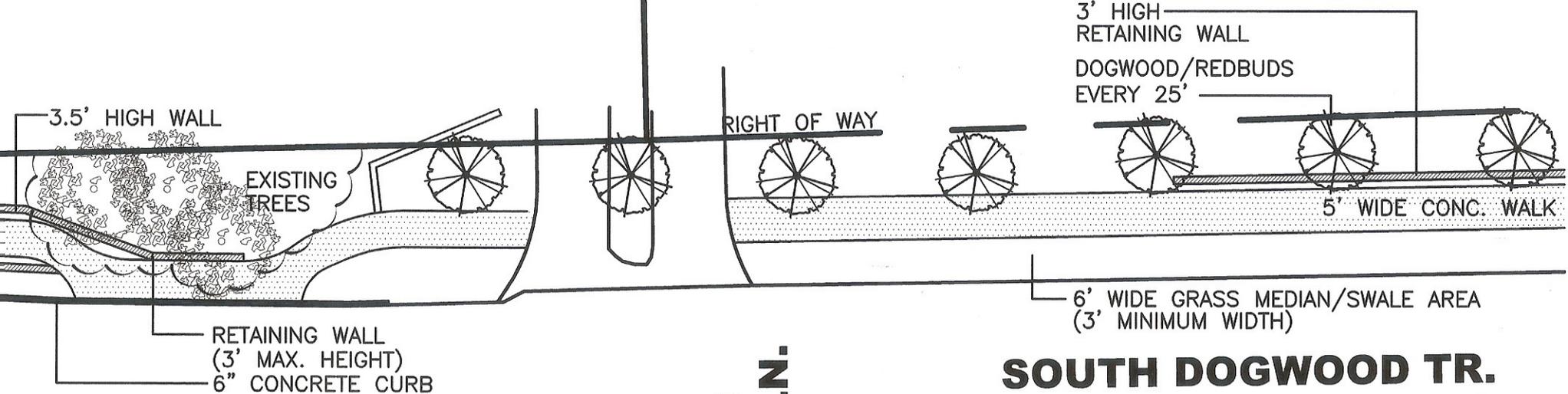
“Who controls the roads?” – The Conference Room – Answers to Questions on NC Laws, nclawyer.typepad.com/north_carolina.../who-controls-the-roads.html



NOTES:

THIS DRAWING IS CONCEPTUAL IN NATURE AND IS NOT INTENDED FOR CONSTRUCTION.

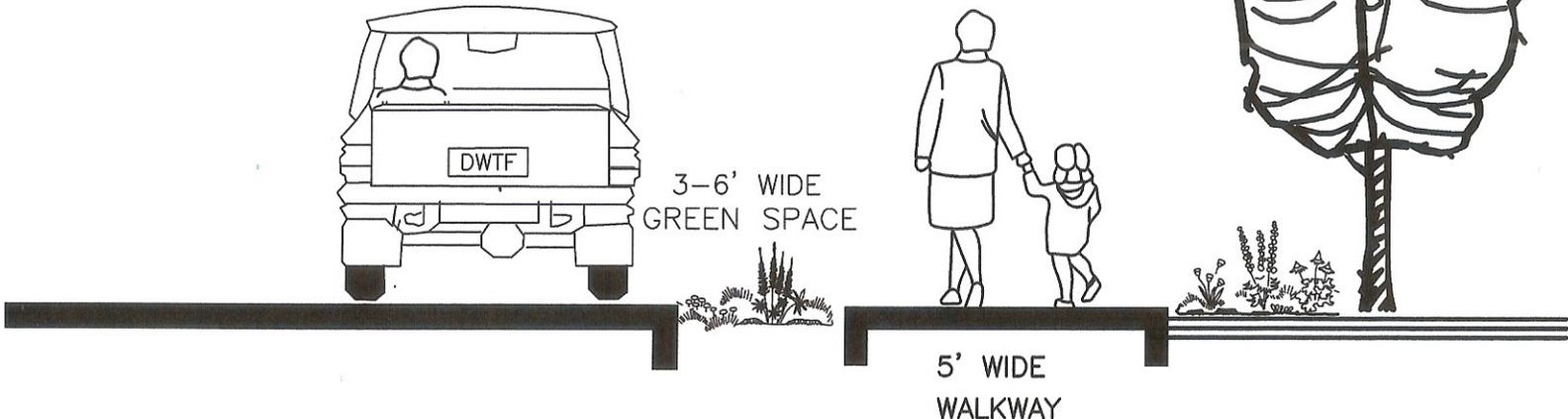
**WALKWAY OPTION
BEECHTREE & EAST DOGWOOD TRAILS
DOGWOOD TRAIL
TASK FORCE**



WILD SWAN LN.

SOUTH DOGWOOD TR.

NOTES:
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**WALKWAY OPTION
WILD SWAN AND SOUTH DOGWOOD TRAIL**

**DOGWOOD TRAIL
TASK FORCE**