

# SUNSET BEACH STREETSCAPE COMMITTEE REPORT



January 26, 2011

Revised: November 15, 2012

Original Streetscape Committee

Carol Scott  
Tim Cate  
Doug Hill

Adrienne Watts  
Dave Nelson  
Lynn Strandquist

Barbara Mitchell

With assistance from Charlene Doolittle on bicycle issues, and Anita August on grants

Current Committee: Carol Scott, Councilwoman; Lou DeVita, Councilman; Gary Parker, Town Administrator; Michael Norton, Compass Pointe Engineering; Sandy Wood, Chief Building Inspector; Dustin Graham, Director, Public Works Department; Tim Cate, Landscape Architect.

# **SUNSET BEACH ISLAND STREETSCAPE PLAN**

## **OVERVIEW**

The Town of Sunset Beach established the Streetscape Committee to develop a proposal for upgrading the look of our Island's gateway within existing zoning regulations (see Attachment 1 for Mission Statement). The area to be considered was Sunset Boulevard from Main Street to the bridge. The Committee consists of volunteers from the Mainland and the Island, including members representing the commercial interests on the Island, residents, and the biking community. Special recognition should go to resident and landscape architect Tim Cate, who was primarily responsible for the architectural rendering of the recommendations and for advice regarding plant selection and lighting. The Committee also received assistance from several members of the North Carolina Department of Transportation, including Michael Lovell, Deputy District Engineer, Stonewall Mathis, Division Roadside Environmental Engineer, Tanya Sokolik-Porch, Jon Roan, Mason Herndon, Environmental Officer, and Debbie Vic. Cindy Nelson ably acted as the Committee's recording secretary.

The Town is now moving ahead with this plan, as revised, with the assistance of Lou DeVita, Councilman; Carol Scott, Councilwoman; Gary Parker, Town Administrator, Tim Cate, Landscape Architect; Michael Norton, Compass Pointe Engineering; Sandy Wood, Chief Building Inspector; and Dustin Graham, Director, Public Works Department. Members of Brunswick Electric Membership Corporation have also provided able assistance with the lighting plans.

## **EXISTING SITE CONDITIONS ON SUNSET BOULEVARD**

Sunset Boulevard from North Shore to Main Street is situated within a 100 foot right-of-way. However, the street is not centered. At the north end, there are 48 feet on the east side of the paved road and 32 feet on the west side of the paved road. At the south end, there are 56 feet on the east side of the paved road and 24 feet on the west side of the paved road (see

Attachment 2). The east side of Sunset Boulevard is wide enough to accommodate an interior road and parking; the west side cannot be utilized the same way. There are a number of nonconforming commercial buildings on both sides of Sunset Boulevard which either use the limited right of way for customer parking, or have buildings located within that right-of-way. Please note that our Streetscape recommendations take these limitations into account.

There is an existing retention pond on the corner of Sunset Boulevard and Main Street (east side), but it has been largely filled in with sand and vegetation.

Currently, there are 47 designated parking spaces on the east side of the road. Access to these parking spots is obtained from the interior road on that side of the street. There is also a small grassed area and a sidewalk between the roadbed and the parking spaces on the east side of the street. A few trash cans have been placed on both sides of the road. There are four commercial light fixtures on the east side of the street, and one on the west side.

The proposed Streetscape project is located within the NCDOT's right-of-way. All plans must be approved by NCDOT prior to initiating construction. An encroachment agreement application, complete with plans depicting road widening and re-alignment for bike path access, sidewalks, parking, landscaping, as well as construction specifications and details will be provided for their review. Because of their continued involvement in this project, we do not anticipate any complications from this process.

## **STREETSCAPE COMMITTEE RECOMMENDATIONS**

Our major recommendations fall into three categories – (1) continue the interior access road from Sunset Properties to Sunset Vacations; (2) create oases of plantings all along Sunset Boulevard; and (3) add both a bike lane and a bike/pedestrian lane from Main Street to North Shore (with connection to the bike lanes on the causeway). We believe these recommendations will result in both an increase in attractive available parking, a uniform look for the area, a sense of greenery and lushness along the road, and safety for bikers and walkers. The overall plan should greatly improve the ambiance of the business district on the Island, and create a gateway to the Island that we can be proud of.

We recommend, as shown on the plan, that several parking spaces be removed within the interior access road area to provide a place for trees and plants. While the current area provides for 47 parking spaces, we will actually wind up with 68 designated parking spaces (a 47 percent increase) on the east side of Sunset Boulevard once the interior road is continued to North Shore.

We do not recommend that parking be provided on the west side of Sunset Boulevard. That side of the road, which narrows considerably as it nears Main Street, is not wide enough to construct an interior access road. Any parking on the west side would either be parallel parking or vertical parking with cars backing up directly onto Sunset Boulevard. This would create not only a dangerous condition, but would cause major backups during the heavily trafficked months. Further, it would be extremely unsightly – you would face a sea of cars as you crossed the causeway along Sunset Boulevard – not the visual appeal that we should be striving for. We note that we met with the Town’s Parking Committee in 2011 to present our ideas regarding parking along Sunset Boulevard, as reflected in this report. The Parking Committee endorsed these recommendations.

We recommend implementation of four foot bike lanes on each side of Sunset Boulevard, similar to the lanes along the bridge and causeway. We note that NCDOT has revised its bridge permit to cover continuing the existing bike lanes from the bridge to North Shore, and the permit has been sent to CAMA for approval. Those bike lanes currently end before they reach North Shore. When this work is completed, the bike lanes will run without interruption from the Mainland all the way to Main Street. We emphasize that the opening of the new bridge has increased the number of bicyclists and walkers to the Island. It is imperative that we provide a safe environment for our community when traveling to and from the Island, and while on the Island.

In addition to the two bike lanes, there will be a four foot sidewalk plus bump out areas that will go from Main Street all the way to North Shore. The sidewalk will comply with ADA requirements. A two foot grass strip will separate the bike lane on the east side of the road from the sidewalk.

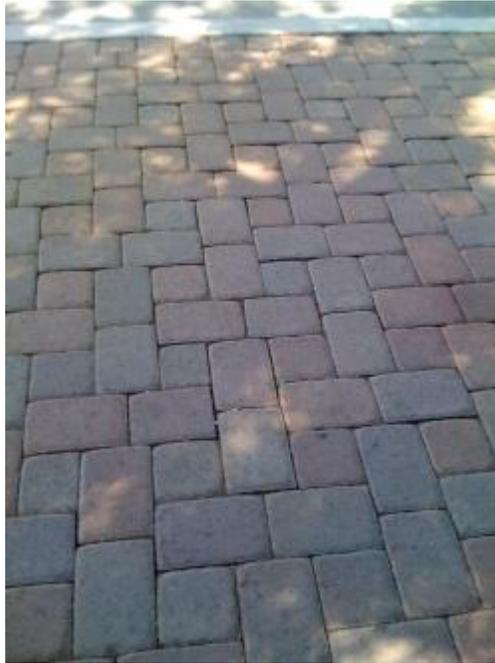
We realize that these recommendations are likely to be costly. DOT gave us several estimates to widen the road bed for bike/pedestrian paths (see

Attachment 3). We are working on coming up with reliable cost estimates for the hardscape improvements.

The NCDOT will also be considering stormwater management measures to ensure that runoff is not directed towards roadway surfaces. The intent of stormwater management for the Streetscape project is to create slightly depressed grassed swales between the edge of the pavement and the road-side edge of the sidewalk (the two foot grassed area mentioned above). This grassed area will allow for infiltration of stormwater runoff and will be graded to direct excess flows to larger landscape islands. Stormwater runoff within existing parking lot areas will be managed similar to the current methods, allowing collection in the southern retention area adjacent to Main Street, and the existing stormwater collection system adjacent to North Shore Drive on the northern end of the project site.

The committee debated at much length about the feasibility of using permeable materials to construct the interior road and continue the parking area through Sunset Vacations. If designed and implemented correctly, permeable pavement systems allow at least a portion of storm water to infiltrate, thus reducing peak runoff volumes and flows. North Carolina's Division of Water Quality, under the authority of the Environmental Management Commission, has developed a variety of stormwater programs to protect the waters of the State. More information can be found in the NCDENR Stormwater BMP Manual at <http://portal.ncdenr.org/web/wq/ws/su/bmp-manual>. Protection of the fragile waterway ecosystem should be a primary concern of our community. We strongly feel that the Town would be well served by using materials or methods that would abate stormwater runoff, although we need to be mindful of the additional costs associated with permeable materials. To this end, the plan calls for installation of pervious pavers within the first three feet of all parking stalls adjacent to the concrete sidewalk. This will allow for infiltration of stormwater runoff from portions of the sidewalk and parking lot areas. If funds were not a concern, all paving materials would be permeable, but the extra costs associated with doing this were prohibitive.

As noted above, the storm water retention area at the intersection of Main Street and Sunset Boulevard should be replanted as a rain garden (as shown on the plan) to both increase the visual attractiveness of the area, and to reinstate its usefulness as a location for storm water runoff.



Example of permeable pavers

## **PLANT SELECTION**

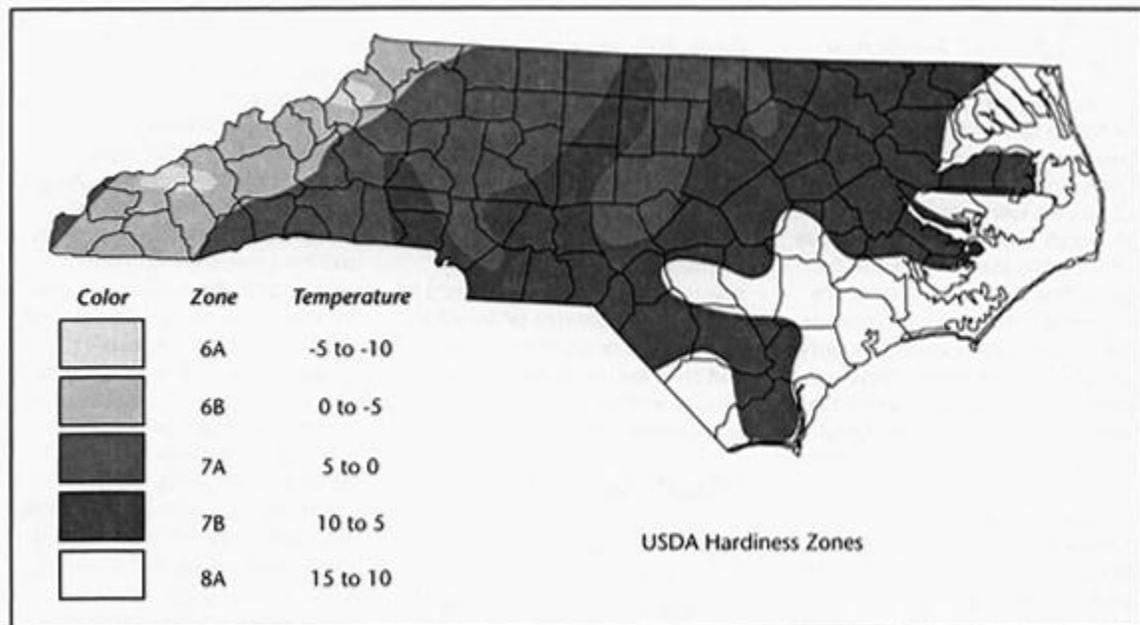
DOT has stringent requirements concerning the placement of plants within any highway right-of-way. North Carolina General Statute 136-93 provides that “no tree or shrub in or on any State road or State highways shall be planted, trimmed, or removed ...without a written permit, and then only in accordance with the regulations of said Department of Transportation ....”

According to State literature, however, limited funding and manpower prevent the Division of Highways from planting and maintaining shrubs and trees on all roadsides. Planting and maintenance of roadside areas is frequently undertaken by municipalities after permission is granted from the Division of Highways. Before any action is taken on a request for a permit for planting within a municipality, the request must have the approval of the local governing body. A copy of the Division of Highways “Guidelines for Planting within Highway Right-of-Way” can be found at [http://www.ncdot.org/doh/operations/dp\\_chief\\_eng/roadside/design/graphics/PlantingGuidelines.pdf](http://www.ncdot.org/doh/operations/dp_chief_eng/roadside/design/graphics/PlantingGuidelines.pdf).

We believe the planting recommendations on the Streetscape plan comply with the requirements concerning the distance from travel lanes, vertical clearance, and sight distances according to the published guidelines. In fact, one of the primary reasons for the selection of Sabal palms is due to its long narrow trunk which allows for appropriate sight lines.

The plants noted on the Streetscape plan are designed to thrive in the challenging coastal conditions existing on the Island, such as blowing sand, poor soils, high temperatures (low temperatures in the winter), excessive drainage, and salt spray. Most plants will not tolerate salt accumulating on their foliage, making proper plant selection for beachfront landscapes imperative. Further, they require relatively low maintenance and watering. For these reasons, we have included Crepe Myrtles near North Shore, but not in areas closer to Main Street. Hibiscus planted annually will achieve most of the color desired by the community at a relatively nominal cost.

Plant selection is based on the Department of Agriculture’s designation of hardiness zone 8a (see below). A publication from the Brunswick County Cooperative Extension on salt tolerant plants recommended for coastal southeast landscapes can be found at <http://pender.ces.ncsu.edu/files/library/71/Salt%20Tolerant%20Plants.pdf>; applicable sections are included as Attachment 4.



North Carolina has three hardiness zones (6,7, and 8) based on the average minimum temperature (°F).

Sabal Palm (also known as Sabal Palmetto and Cabbage Palm) – is highly salt tolerant, is native to the southeastern United States, and survives winter temperatures to 0 degrees when established.



Sabal Palm

Dwarf Sabal Palm (also known as Sabal Minor and Sabal Palmetto) – is a shrub sized palm with bluish leaves, growing (slowly) four to six feet tall and wide, and is used as a specimen or tall groundcover. It is the most widely-distributed palm in the Southeast.



Dwarf Sabal Palm

Parson's Juniper – is a superior juniper with rugged character widely used in commercial landscapes. It has gray-green foliage on stiff, wide-spreading branches. It is a good groundcover for hot, dry areas.



Parson's Juniper

Ornamental grasses – There are many highly salt tolerant ornamental grasses suitable for our area (see Attachment 4). Below is an example of Muhly Grass, one of the grasses listed in that attachment.



Muhly Grass

Yaupon Holly – is an evergreen shrub or small tree with smooth, light gray bark and slender, hairy shoots. It generally occurs in coastal areas in well-drained sandy soils, and can be found on the upper edges of salt marshes, sand dunes, and wetlands.



Yaupon Holly

Crepe myrtle, grown in tree form, produces a profusion of delicate blossoms that form large clusters with up to 18 individual blossoms. The crepe myrtle prefers a planting area in full sunlight, does not attract deer, but does have a low tolerance for saltwater.



Crepe Myrtle

Hibiscus is a genus of plants that include over 200 species. The tropical hibiscus is best known for its large showy flowers and glossy leaves. The plants add color and excitement to landscapes.



Red Hibiscus Bush

The plan also calls for grassed areas. These areas will obviously require additional maintenance and irrigation, but will achieve the most attractive look for the streetscape plan. We have determined that irrigation and associated taps into the water lines is feasible for all locations needed.

The Streetscape preliminary cost projection for landscaping materials is included as attachment 5. We recommend adding 75 one gallon hibiscus as an annual as part of the yearly maintenance budget.

## **LIGHTING**

Proper lighting greatly enhances a nighttime experience, as well as creates a safe environment for pedestrians and motorists. The plan calls for twelve lights along Sunset Boulevard (we currently have five).

DOT requires that poles generally must be 12 to 15 feet high, must be breakaway and must be impact resistant. The lighting concept we would like to see followed consists of decorative, low level, white LED fixtures. The light should be directed downward for area and ground illumination, to avoid light pollution. The fixture should not have a commercial feel or look and should be somewhat nautical if possible. We recommend a 12 foot fixture – the lowest height allowed by DOT – along Sunset Boulevard, and 15 foot fixtures along the causeway. The placement of these fixtures, due to existing conditions, favors staggering them on both sides of Sunset

Boulevard. The existing lights in the extension should be replaced with the same fixtures selected. Although not strictly within the Streetscape Committee’s purview, we also recommend that the four existing fixtures in the gazebo area be changed out to match the look and quality of light being recommended.

We have been meeting with BEMC on the lighting issues, and they have been very supportive of our goals. BEMC charges \$100 to install the pole lights, plus monthly utility charges. They charge \$35 to remove a light post. We have a choice of a concrete base or breakaway aluminum, and BEMC recommends the concrete base because of lower maintenance costs, even though this is an additional \$250 charge. BEMC will amortize the cost of the fixtures over a 20 year period, or, if we choose, we can pay for the cost of the fixtures up front and avoid yearly charges to our operating budget.

Below are examples of actual lights that could meet these suggestions.



## **SIGNAGE FOR SUNSET BOULEVARD**

We recommend that a large “Welcome to Sunset Beach Island” sign be erected on the Southwest corner of Sunset Boulevard and North Shore Drive. Also, an Island wide speed limit sign of 25 mph could be posted at

the juncture of the causeway and the Island, which would eliminate the need for speed limit signs along Sunset Boulevard, should this speed limit be approved.



Example of an entrance sign appropriately landscaped

### **ANNUAL PLANTERS AND OTHER ACCESSORIES TO ENHANCE THE ATTRACTIVENESS OF THE BUSINESS DISTRICT**

We would like Sunset Boulevard to be an attractive place for property owners and visitors alike. To this end, in addition to the major streetscape recommendations, we suggest the following enhancements. Please note that whatever we install should be consistent throughout the area.

We believe that flowering plants in addition to the hibiscus recommended in the right of way would add greatly to the ambiance of the business corridor. One possible solution is for the Town to purchase and provide large attractive permanent containers to any business that would be willing to provide the daily maintenance that such planters would require. Individual property owners could also assist in the planting and care of these containers with an “adopt a planter” program.

We would also like the Town to consider purchasing bike racks to be placed at various locations, and provide attractive trash and recycling containers to be placed in the grassy strip between the pedestrian/bike lane and the interior road on the east side of Sunset Boulevard. The Town has recently started adding “Big Belly” solar trash and recycling containers to new projects, and we recommend that two double units be installed along Sunset Boulevard. These units cost approximately \$9000 each, although grant opportunities may reduce that cost



Example of a planting container



Example of an attractive bike rack



Big Belly trash and recycling receptacles

## **OUTSIDE GRANT AND FUNDING OPPORTUNITIES**

We have had a number of discussions with DOT representatives concerning the availability of State funds to finance some of our recommendations. The North Carolina Department of Transportation used to feature an Enhancement Program designed to “benefit the traveling public and help communities increase transportation choices and access, enhance the built or natural environment and create a sense of place.” Included in the twelve qualifying activities were bicycle and pedestrian facilities and safety, scenic or historic highway programs, landscaping and other scenic beautification, and environmental mitigation. However, there has been no funding of projects under this program over the last few years because of funding cut backs.

The Enhancement Program has been replaced by a program called MAP-21. One-half of this program’s funding will be through MPO’s (Metropolitan Planning Organizations). Our MPO has yet to be established, so waiting to apply and be awarded funds is both questionable and raises issues of timing. The other half of these funds will be awarded through the State DOT in

Raleigh, but they have not yet set rules for the application and funding processes. Following this path for funding is problematic.

In addition to DOT MAP-21 funds, there are numerous other grant possibilities for funding the bike lanes. However, because of state and federal funding cut backs, this is also probably not realistic. The Town should plan on funding the project itself, although there may be a chance to receive NCDOT Discretionary Funds.



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Gary Parker, Administrator • Larry Crim, Asst. Administrator



## **Sunset Boulevard South Street Scape Steering Committee**

### **Mission Statement**

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Committee members will be asked to work with appropriate Town Staff and a selected landscape architect to develop a proposal for upgrading the look of our island's gateway within existing zoning regulations. The initial area to be considered is on Sunset Blvd South from the bridge to Main Street. Once a landscape plan has been presented, approved and funded by the Town council, it is expected that town personnel will manage the implementation of the project after the installation of any lines related to the planned sewer project.

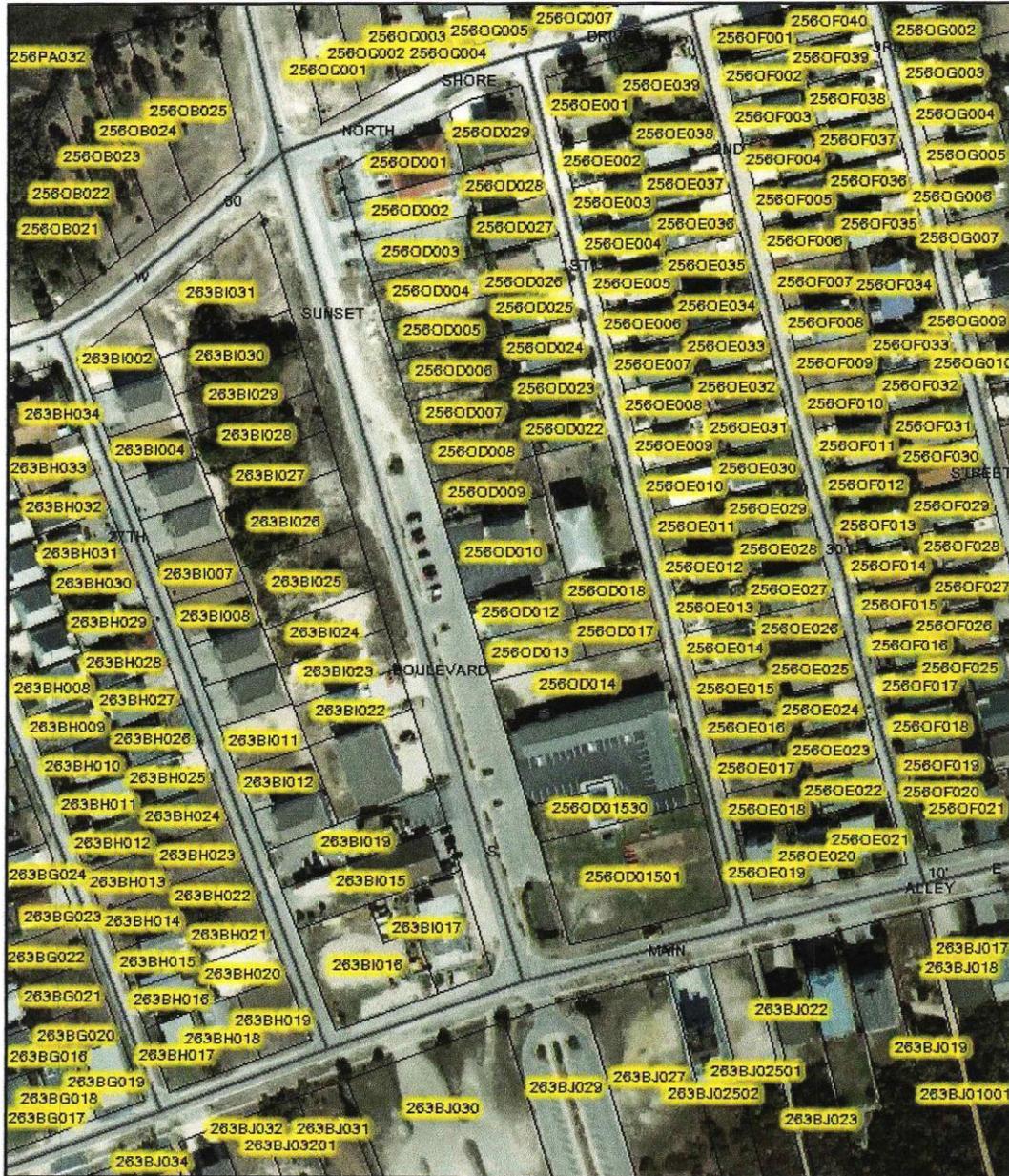
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Mayor Ronald F. Klein • Council: Len Steiner • Ron Watts • Louis DeVita • Bob Bobinski • E. Wilson Sherrill

Part of North Carolina's Brunswick Islands

Attachment 1

### Brunswick County, NC



*Disclaimer:* Map and parcel data are believed to be accurate, but accuracy is not guaranteed. This is not a legal document and should not be substituted for a title search, appraisal, survey, or for zoning verification.

**Map Scale**  
1 inch = 173 feet

<http://gis.brunsko.net/printPreview.aspx?PrintOptData=Brunswick County, NC|0|0>true|fals...> 9/15/2010

Attachment 2

# CONSTRUCTION ESTIMATE

District Three                      Division Three                      Brunswick County

Route	SR-1172	Work Order	N/A
Description	2' Widening		
Length	1260'	Estimated Construction Time	N/A
Typical Section			
Surface:	Type            SF 9.5 A	Thickness            2"	Width                4'
Binder:	Type	Thickness	Width
Base:	Type            B 25.0 B	Thickness            5"	Width                2'
Other:			
Notes:	This estimate is for only one side of the roadway for a 4' paved shoulder.		

ITEM	QUANTITY	UNIT PRICE	AMOUNT
Grading                      LS	1	\$15,000.00	\$15,000.00
S F 9.5 A                      TON	62	\$85.00	\$5,270.00
B 25.0 B                      TON	161	\$100.00	\$16,100.00
Asphalt cement              TON	12	\$500.00	\$6,000.00
Shoulder Grading            SHM	0.25	\$6,000.00	\$1,500.00
Shoulder Borrow            CY	120	\$10.00	\$1,200.00
Paint Striping              LF	1,260	\$0.20	\$252.00
Seeding & Mulching        LS	1	\$2,000.00	\$2,000.00

ESTIMATED COST OF CONSTRUCTION:	\$47,322.00
Traffic (Signals, traffic control, etc.):	N/A
Right of Way:	N/A
Environmental:	N/A
Engineering:	13.5%
Other:	N/A
Contingency: (___ %):	N/A
<b>TOTAL ESTIMATED COST:</b>	<b>\$47,322.00</b>

Computed by Michael Lovell                      Date 5-Jun-09

*Cost of bike / ped path to be extended  
from curbside to main St. - one  
side of road*

# CONSTRUCTION ESTIMATE

District Three      Division Three      County: Brunswick

Route Sunset Beach      Work Order N/A

Description \_\_\_\_\_

Length \_\_\_\_\_ Estimated Construction Time N/A

Typical Section

Surface:	Type	<u>SF 9.5 A</u>	Thickness	<u>2"</u>	Width	<u>4'</u>
Binder:	Type		Thickness		Width	
Base:	Type	<u>B 25.0 B</u>	Thickness	<u>5"</u>	Width	<u>4'</u>
Other:	_____					

Notes: \_\_\_\_\_

ITEM	QUANTITY	UNIT PRICE	AMOUNT
Mobilization (LS)		\$50,000.00	\$0.00
SF 9.5 A (TON) <i>asphalt</i>	700	\$65.00	\$45,500.00
I 19.0B (TON)		\$55.00	\$0.00
B 25.0 B (TON) <i>base under surface mix</i>	2500	\$77.00	\$192,500.00
ASP for Plant mix PG 64-22 (TON)	209	\$500.00	\$104,500.00
Ditch Construction (CY)		\$8.50	\$0.00
Pipe Replacement (LF)		\$52.00	\$0.00
Shoulder reconstruction (SHM)	2	\$3,000.00	\$6,000.00
Seeding & Mulching (AC)	5	\$2,000.00	\$10,000.00

*4' widening of current road from N. Shore to main St.*

<b>ESTIMATED COST OF CONSTRUCTION:</b>	<u>\$358,500.00</u>
Traffic (Signals, traffic control, etc.):	N/A
Right of Way:	N/A
Environmental:	N/A
Engineering:	13.5% N/A
Other	N/A
Contingency: (____%)	N/A <i>2</i>

**TOTAL ESTIMATED COST:** \$358,500.00

Computed by Michael C. Lovell      Date June. 1, 2009

**Approximate cost per linear foot**       $\rightarrow$  \$19.57

This formula is the the total approximate cost divided bt length times 2 sides of the roadway.

North Carolina Cooperative Extension

# SALT TOLERANT PLANTS

## Recommended for Coastal Southeast Landscapes

### Coastal Challenges

Plants growing at the beach are subjected to environmental conditions much different than those planted further inland. Factors such as blowing sand, poor soils, high temperatures, and excessive drainage all influence how well plants perform in coastal landscapes, though the most significant effect on growth is salt spray. Most plants will not tolerate salt accumulating on their foliage, making plant selection for beachfront landscapes particularly challenging.

### Palms—*Highly Salt Tolerant*

#### Common Name

#### Botanical Name Height x Spread (ft.) Soil Exposure

Dwarf Palmetto\* *Sabal minor* 4-6 x 4-6 Moist to Well Drained Sun to Part Shade

Cabbage Palm, Palmetto\* *Sabal palmetto* 10-20 x 10-15 Well Drained Sun

Saw Palmetto\* *Serenoa repens* 3-5 x 4-8 Moist to Well Drained Sun to Part Shade

### Ornamental Grasses—*Highly Salt Tolerant*

#### Common Name

#### Botanical Name Height x Spread Soil Conditions Exposure

Pampas Grass

*Cortaderia selloana* 8' x 6' Moist to Well Drained Full Sun

Lyme Grass

*Leymus arenarius* 2' x 4' Well Drained to Xeric Full Sun

Maiden Grass

*Miscanthus sinensis* 4'-8' x 3'-6' Moist to Well Drained Full Sun

Muhly Grass\*

*Muhlenbergia capillaris* 3' x 3' Well Drained to Xeric Full Sun

Bitter Panicum\*

*Panicum amarum* 3' x 2' Well Drained to Xeric Full Sun

Sand Cordgrass\*

*Spartina bakeri* 3' x 3' Well Drained Full Sun

Attachment 4

## Streetscape Landscape Preliminary Cost Projection

No.	Common Name	Cost Each	Total	Installed Cost
59	Sabal Palm (Regenerated)	275	13,275	33187
455	Dwarf Sabal Palm	38.00	17,290	43,225
155	Grasses	22.00	3,410	8,525
15	Yaupon Holly			
12	Crepe Myrtle	175	4,725	11,812
	Pine Straw	Allow		2,500
	Soil Amendment	Allow		1,750
	Sod	Allow		17,000
	Irrigation	Allow		45,000
<u>Total Preliminary Estimate</u>				<u>163,000</u>

Does not include Town costs, construction documents, layouts, and Construction supervision)