

DEWEES ISLAND

ARCHITECTURAL & ENVIRONMENTAL DESIGN GUIDELINES

(Revised)
April 2017

STATEMENT OF PURPOSE

In response to the Dewees Island commitment to environmental preservation, Architectural and Environmental Design Guidelines have been established, and are administered by the Dewees Island Architectural Resource Board. The purpose of this information is to inform the homeowner, architect, landscape architect, and the contractor on environmental issues relevant to building on Dewees Island. Regulations for construction, design and materials were developed to ensure compatibility with the various Dewees Island Covenants, with environmental protection, and with the Island's natural landscape.

These Design Guidelines have as their objective, harmonious integration of the built environment with Dewees Island's native environment. To maintain and enhance the Island's integrity, to preserve the ecosystems, and indigenous landscape, and to reduce dependence on non-renewable resources is the goal.

It is important that each owner, design professional, and contractor be educated on environmental issues required to preserve the Island's aesthetic value. The environmental standards set by the Architectural Resource Board not only serve the Island, but also protect the owner's investment. Adherence to these standards will enable the community to continue to enjoy the beauty of Dewees Island.

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I. INTRODUCTION

“Deweese Island: A private, oceanfront island community dedicated to environmental preservation.”

Words like “preservation”, and “natural”, are so overused these days one wonders where the meaning has gone. At Deweese Island, there is no such ambiguity. Preservation of the natural environment is a reality. Much planning has been implemented that will preserve what you came to Deweese Island for - the natural beauty of the Island, and a commitment to keep it that way.

A. Impact Philosophy

The philosophy of development at Deweese Island is to limit impact on your neighbor and the native environment and natural character of the Island, and for the presence of man to have a positive impact on the environment and ecosystem now, and in the future. This is reflected in the Design Guidelines, the Master Plan, and the Island Covenants. Impact on the Island is inherently limited by the regulating bodies of South Carolina that have approved the Island Master Plan limiting development to 150 home sites and supporting facilities. The Master Plan is more than just a statement of desires; it is a legal document - a commitment by Deweese Island to the state. Once the homes are built, there can be no further development of the Island. Homes proposed for the Island will be reviewed for compliance with the Design Guidelines. The Guidelines provide the direction needed to reduce the visual and physical impact of building on the Island. Homes built in accordance with the Design Guidelines should harmonize with the native character of the Island, and preserve your privacy and that of your neighbors. To ensure that the protective measures of the Master Plan and Design Guidelines remain in perpetuity, there are Island Covenants which require abidance by every future resident. This combination of items is designed to inspire a shared vision, and protect your investment through environmental sensitivity.

B. The Island as Resource

In many ways these ideas are a mixture of old and new; old understandings and new technology. As resources become scarcer, and more places become indifferently developed and commercialized, what remains becomes that much more precious. It becomes clearer every day that we must begin to develop a true respect for the resources of this planet. ***At Deweese Island, you have the perfect opportunity to experience the rewards of treading gently in an unspoiled place.***

As part of the low impact design philosophy, an Architectural Resource Board (ARB) has been established to ensure a design approach that stresses reduced dependency on limited resources both on and outside of the Island. Improved efficiency in utilizing all resources is equally stressed. The conservation of physical resources is cost effective from a capital and operations cost point of view. Energy efficient home and site designs improve the way we use mainland resources such as electricity. Rain-water collecting cisterns and water conserving plumbing fixtures reduce our usage of Island central wells and prevent us from overtaxing the Island central sewage system. The significance of such design strategies is that they are real ways to implement a "low-impact" design philosophy. The Design Guidelines elaborate on many ideas, and demonstrate ways you can make the best use of our world's finite resources.

Responsibility for pollution begins with the individual. The public may view industry as the greatest cause of pollution, but non-point source pollution caused by individual decisions has a greater negative impact on the environment. The educational process must begin with the understanding of the impact of your actions: the use of electric powered vehicles and equipment eliminates the need for petroleum, with its leakage, spillage and release of exhaust into the environment; the use of non-toxic paints and household products not only eliminates their more caustic counterparts, but aids in the recyclability of the containers in which they are packaged; the use of interior materials that are non-toxic contributes to maintenance of indoor air quality; the use of non-hazardous alternatives to household

chemicals avoids toxic effects on both the user and environment; and the selection of environmentally friendly building materials for your home are just some of the many alternatives which need to be adopted as you evaluate the way in which you live and determine the level of positive impact you can make.

C. The Dewees Islander

It will take more than master plans and written edicts to fulfill the potential that awaits at Dewees Island. How many people have dreamed of living in an unspoiled place? A place that seems to have been there forever, frozen in time. Places like this are rare, and Dewees is one such place. Dunes, salt marshes, and maritime forests make up the ecosystems of the Island. It does not take much of a disturbance to have a negative impact on this fragile place. People, development, and pollutants can quickly take their toll. It is the Dewees owners who will have the greatest bearing on the success of Dewees Island as an environmental sanctuary. Your commitment to preserving the natural landscape, ecosystems, and character of the Island is the key.

Rules and laws of society work because the individuals of a community believe that the rules exist for their own benefit and for the common good. The implementation of these Guidelines and a successful Property Owners Association (POA) will result from your own recognition of the irreplaceable value that you embrace at Dewees. Each individual must appreciate and understand the asset value and beauty of this Island with which you have been entrusted. The acceptance of individual responsibility for the environment will be the trust that preserves the natural landscape, ecosystem and character of Dewees.

Living on Dewees Island means more than owning and occupying a dwelling. It is a responsibility that each owner, as part of the natural environment, assumes. You should view your existence on Dewees as nesting within the environment as other species of wildlife nest within their selected habitats. Each resident at Dewees Island should take no more from the Island environment than what is needed to enjoy the experience of this sanctuary. It is important that each owner be committed to learn from, and understand how, this environment works, so that the daily activities and decisions made while on the Island can be based on a thorough understanding of the potential impact of your actions on the environment. It is the goal of this community that knowledge of the Island and its environment be expanded and shared with others, and passed on to future inhabitants.

The Dewees Island Property Owner's Association is dedicated to preserving the natural beauty of Dewees Island as well as furthering your knowledge of this special place. These guidelines are a beginning of the educational process that will continue throughout your stay on the Island.

II. PHYSICAL CHARACTERISTICS OF THE ISLAND

Dewees is a barrier sea island with wide stretches of white sand beach and panoramic views of the Atlantic Ocean, dunes and salt marshes. Located approximately twelve miles northeast of Charleston, South Carolina, this 1200 acre, private community is nestled between the commercially developed Isle of Palms to the south and Capers Island and the Cape Romain National Wildlife Refuge to the north. The existing natural island environment is like that of the Wildlife Refuge to its north with diverse habitats for the Island's wildlife.

A. Topography

As is typical with barrier sea islands, a series of dunes divides the beach from the interior of the Island. The beach stretches for almost three miles along the Atlantic from Caper's Inlet at the north to Dewees Inlet at the south. The interior of the Island contains two ridges of highlands flanked by marsh and lagoons. The Island elevations range from 0 feet at the beach, lake and lagoons to 25 feet atop the dune ridge at the southern corner of the Island with most of the highlands ranging from 5 to 10 feet above sea level.

B. Soil

The soils on Dewees Island began their formation about 10,000 years ago as a result of water level change combined with wind and wave action. This newly formed land mass also gave birth to the plant and animal life which in time made the distinctive soil types we have today. The four types indicated on the Soils Map, located in Appendix #9, are the result of the Island's evolution. Thus, it is paramount to maintain our awareness of these systems and that we not disturb the natural succession of the environment. The location of houses on Dewees Island has been restricted to the areas of the Island with soil types most suitable for structural bearing.

C. Vegetation

Although Hurricane Hugo has temporarily changed the character of the vegetation, the plant types still exist in the form of seedlings, saplings, and mature survivors which will once again develop into distinctive plant communities through natural succession. The four major vegetative areas are the dunes, the leeward side of the dunes, the maritime forest, and the salt marsh. (See Appendix #12 for management information)

The harsh environment of the dunes limits the plant species to beach grass, sea oats, and beach spurge to name a few. To the leeward side of the dunes, the vegetation becomes more diverse because it is protected by the dunes. Shrubs and trees common to this community are the live oak, cabbage palm, wax myrtle, and yaupon. Herbaceous species include seaside goldenrod, beach primrose, and salt meadow cordgrass.

Most of the upland acreage on Dewees is classified as a maritime forest. This woodland is primarily composed of live oak, loblolly pine, slash pine, red cedar, magnolia, holly, and cabbage palm dominating the overstory with yaupon, wax myrtle, dwarf palmetto and American beautyberry in the understory. Within the maritime forest are freshwater sloughs that are vegetated predominantly with panic grass, sedges, cattail, Chinese tallow tree, and black willow.

Unlike many upland or freshwater ecosystems, the salt marsh has relatively few species of both plant and animal life. Smooth cord grass dominates the low salt marsh while black needlerush, saltgrass, glasswort, salt meadow cord grass and sea oxeye occur on the higher elevations.

D. Animal Life

Within the different plant communities, there are animal species that are part of the varying habitats of the Island. Along the beach and dunes, the most conspicuous invertebrates are the ghost or sand crab and loggerhead sea turtles. Some of the birds that feed on the invertebrates at low tide are the American oyster-catcher, plover, willet, tern and sandpiper. Behind the dunes, raccoons, white-tail deer, moles, mice, and rabbits can be found.

In the maritime forest you will find resident birds such as the osprey, chickadee, Carolina wren, brown thrasher, pine warbler and the cardinal and migratory species like the yellow-bellied sapsucker, ruby-crowned kinglet, eastern phoebe, black and white warbler and the American redstart. Wading birds use the sloughs and include the egret and heron.

In the salt marsh, commonly found are the long-billed marsh wren, marsh hen, great blue and tricolor herons, great and snowy egrets. The invertebrates include several species of crabs and snails, and about fifty species of insects. Freshwater wetlands on the Island are important habitat for turtles, alligators, and frogs.

III. MASTER PLAN & COVENANTS

A. Master Plan

Dewees Island has avoided the years of commercial development seen by many of its neighbors along the Carolina coast, and remains today much the same as when the first Europeans found it. ***The primary goal of the restrictive covenants and guidelines for the Dewees community is to assure the preservation of the environment.*** Through careful planning, Island Preservation Partnership has established the framework and infrastructure necessary for you to coexist comfortably within the natural environment. This is accomplished by integrating man in balance and harmony with the existing natural systems.

The development on Dewees is limited to 150 private residences, guest lodging not to exceed 15 rooms, and a small number of amenities for the safety and enjoyment of the residents. ***No commercial activities are permitted on the Island except in support of the residents.*** With each homeowner permitted to create no more than 7500 square feet of disturbance and accounting for the public facilities and roadways, less than five percent of this Island's 1200 acres will be impacted.

The amenities found at Dewees start with the natural environment. From oystering, crabbing, shrimping, and fishing to strolling the nature trails, bird watching, studying sea shells, swimming and boating, just about any of nature's outdoor activities can be enjoyed and in quantity and quality rarely found. These resources are not limitless and their continued availability depends on self-discipline. ***Harvesting of any marine resources at Dewees should be governed by the philosophy, "take only what you will eat that day." "Catch & Release" fishing practices are encouraged.***

A community swimming pool and tennis courts are available. In addition to the main ferry/access dock at the Landings, several small crabbing, fishing, and small skiff docks can be found throughout the Island. An emergency helicopter pad is in place. A full time staff, environmental education center, and Huyler House guest lodging and community facility are available for Island residents. In the future there will be an Island chapel, community garden, and interpretative trails.

B. Covenants and Agreements

Dewees Island is protected by several covenants, ordinances and restrictions regulated by various federal and state agencies and the Dewees Island A.R.B. The purpose of these regulations is to ensure the lasting protection of the environment. The restrictions and preservation commitments convey with the land to each Dewees Island property owner.

In 1975 the owners of Dewees Island entered into an agreement which grants the State of South Carolina, through the Department of Natural Resources, a conservation easement over the entire Island. This easement prohibits commercial activity except those necessary to provide services for the 150 home sites, and limits density to 150 single family homes. Additionally, it limits development to the approved Master Plan and requires the preservation and maintenance of the Island in its natural state. As provided by the easement, large areas of the Island have been set aside as a wildlife preserve. A wildlife management plan for the Island that provides for the enhancement of wildlife habitats has been approved by the Wildlife Department.

The permitting and use of the Dewees docks was granted, with strict provisions, by the South Carolina Office of Ocean and Coastal Resource Management (OOCRM) in conjunction with Department of Health and Environmental Control (DHEC), and the U.S. Corps of Engineers. The waterways leading to and surrounding Dewees are filled with an abundance of wildlife. Care must be taken to keep contaminants from affecting their existence. Restrictions for the use of the Dewees docking facilities at the Island include: ***the maximum boat length shall not exceed twenty five feet; the maximum length of time a boat shall remain at any dock is twenty four hours; only boats without heads shall be permitted. No docks are permitted on private lots.***

At oceanfront lots shared beach access is strongly encouraged. The beach access shall be a combination of pathway and wooden walkway that follows the contours of the land. **All access walkways in the beach dune zone must be elevated boardwalk that comply with the Office of Ocean and Coastal Resource Management (OOCRM) Beach Management Act.** Beach access walkways must be submitted to the A.R.B. for approval. Non-oceanfront lots have beach access by means of six community access paths as indicated on the approved Master plan.

The beach is managed under a "common access program". Although beachfront property owners' land extends to the mean high water line as of December of 1991, all homeowners have access rights to the beach area at all times. It is important to note that the beach and dunes are extremely different areas. The beach is a place for activity and recreation. The dunes, on the other hand, have an extremely fragile ecosystem and passage through them should occur only on the designated crossing points. **Under no circumstances may vehicles be driven over the dunes or on the beach.** Additionally, the POA oversees a beach maintenance program that aids in the regeneration of the dunes area through fertilizing, planting, and sand fencing.

Access to the salt-water marshes and tidal waterways shall occur by means of community provided facilities such as the crabbing and fishing docks located throughout the Island. **There can be no private, man-made structure extending beyond the OOCRM critical line.** (Beach Accesses/Boardwalks do not require an OOCRM permit).

IV. OVERVIEW OF THE DEVELOPMENT PROCESS

Addenda July '09

The mission of the Dewees Island Architectural Resource Board (A.R.B.) is to ensure that development occurs in accordance with the philosophy of environmental preservation expressed in the Design Guidelines and Island Covenants. **The review process includes three approval steps, (1) sketch design approval, (2) preliminary design approval and (3) final construction document approval prior to construction.** The A.R.B. suggests that property owners begin the review process early to allow ample time to obtain the required permits, allowing for potential delays. The A.R.B. will consist of at least an architect, a Dewees Island property owner, and an environmentalist.

A. Use of Design Professionals

Addenda July '09

All design and construction activities should blend with, and reinforce the natural amenities of Dewees Island. To preserve the beauty and character of the Island, it is essential that the development of each lot be done with extreme care. **Each property owner must commission a South Carolina registered architect for complete services to accomplish the design** (Form 11, Dewees Island Design and Construction Checklist). LEED Accreditation of the architect is desirable. These services shall be as defined in AIA Document B101-2007 Owner/Architect agreement. The Owner is required to submit a copy of the fully executed Owner/Architect B101-2007 document to the A.R.B... Amendments to the executed agreement are not permitted. **It is also required that a landscape architect or professional landscape designer, experienced in the principles of xeriscaping and use of native plants, be employed to prepare landscape plans for the site, since at least a minimal amount of landscaping will be required.** It is hoped that design professionals commissioned for work on Dewees Island will have been recognized professionally as being outstanding environmental and residential designers. Teamwork between the design and building professionals will result in a more successful design solution to the particular challenges of building on Dewees Island.

B. Steps in the ARB Approval Process

1. Engage the services of a South Carolina registered architect and landscape architect.
2. Review the Dewees Island Covenants and the Design Guidelines with your design professionals.

3. Obtain a boundary, topographical and tree survey as described in the Guidelines.
4. Develop site analysis and sketch designs or bubble diagrams and submit those to the A.R.B. for Sketch Review with the submittal fee. Owner and design professional attendance is required at this review.
5. Upon approval of Sketch Review prepare and submit schematic designs to the A.R.B. for Preliminary Design Review. These schematic designs shall take into consideration any comments from the A.R.B. Sketch Review.
6. Upon approval of Preliminary Design Review prepare and submit final construction drawings to the A.R.B. for Construction Documents Review. These final designs shall take into consideration any comments from the A.R.B. Preliminary Design Review.
7. After approval of the Construction Documents Review the property owner shall submit **three** (3) complete sets of construction documents to the A.R.B. as well as a digital copy of all drawings with the completed ARB Form 4 Application for Construction Permit, the Owner's Cash Deposits, and Owner's Utility Fees (Appendix #4). After verification that all items are in order, the A.R.B. will stamp the construction documents as approved for construction and issue a Dewees Island Construction Permit.

A.R.B. approval is valid up to one (1) year, after which time, the approved documents will be subject to changes in the A.R.B. Guidelines, site conditions, and adjacent construction. If construction has not begun within one (1) year, a second Construction Documents Review and Review Fee will be required.
8. Once a Dewees Island A.R.B. Construction Permit is received the property owner can submit to Charleston County for a County Building Permit.
9. At the completion of work and prior to occupancy, the owner must obtain a Dewees A.R.B. Application for Certificate of Completion (Form 6). Once the Certificate of Completion is granted the owner may apply for a Certificate of Occupancy from Charleston County.
10. The checklist used by the A.R.B. for design and construction requirements can be found in Form 11 (Dewees Island Design and Construction Checklist). This may be helpful as a guide during the development process.

C. Permits

In an effort to maintain continuity of process and adherence to the regulations stipulated in the Island's covenants, all requests for permits from a government agency (Charleston County, Office of Ocean and Coastal Resource Management (OOCR), South Carolina Department of Health and Environmental Control (DHEC), the Corps of Engineers, etc.) shall be submitted to the A.R.B. for review of the merits of the request. If the A.R.B. approves the request, the Property Owners Association will apply for the permit (except for the building permit for the house) on behalf of the homeowner at the property owner's expense. The Office of Ocean and Coastal Resource Management (OOCR) has made compliance with the "Declaration of Covenants and Restrictions of the Dewees Island P.O.A." a part of the permit conditions.

D. Construction Phase

No site clearing, pile driving, deliveries or other construction activities may be initiated without the approval of the A.R.B. The Architect and Landscape Professional will be required to review the progress of the work and shall each submit a "Certificate of Compliance" signed by the architect, stating the construction was completed in accordance with the approved drawings (Construction Process Review, Form 10). This must be submitted prior to issue of a Certificate of Completion by the A.R.B.

E. Regulatory Factors

Prior to seeking final approval, the ocean front property owner should review the 1990 Beachfront Management Act, obtainable through the A.R.B., to gain a better understanding and respect for coastal construction rules and regulations. This Act promotes responsible development. In the development of a building design, the owner must consider several state and federal regulations. The following is a breakdown of the different types of regulatory agencies involved in the approval process at Dewees Island:

1. **Federal Regulations**

The Federal Emergency Management Agency (FEMA) provides flood insurance rate maps which aid insurance agencies in determining flood insurance rates. Structures built in FEMA regulated areas must comply with the minimum building height above sea level as described in its guidelines and regulated by Charleston County through their ordinance for construction in flood hazard areas. (See FEMA in the Site Planning Section V., B., 4., c.). The U.S. Army Corps of Engineers approves all waterway, lake, marsh, and saltwater wetland area construction. This includes bridge and dock construction.

2. **State Regulations**

The Office of Ocean and Coastal Resource Management (OOCR) regulates all oceanfront construction, salt-water wetland, and marsh alterations. OOCR has developed regulations for building in critical areas of the state's coastal zone. Island Preservation Partnership has negotiated setbacks for all lots in the setback zone and established a Building Restriction Line, in front of which (toward the beach or tidal marsh) placement of structures is not permitted. All wetlands on the Island have been defined and located, and are indicated on the purchaser's plat. No disturbance of wetlands is permitted. Bridging of wetlands is possible but requests must be submitted to the A.R.B. for review and approval.

The South Carolina Department of Health and Environmental Control (DHEC) gives approval for the water supply and water distribution programs, sewage collection, treatment, and disposal systems for Dewees Island as well as for its docks.

3. Charleston County

Building permits are issued and inspections are carried out by the Charleston County Building Inspections Department. Charleston County administers The Tree Preservation Ordinance. In some instances the wildlife and environmental covenants in effect at Dewees may be more restrictive. All vegetation removal, other than normal landscape maintenance, must be approved by the A.R.B.

V. DESIGN PROCESS AND STANDARDS

Buildings on Dewees should be designed to channel resources so that people can

- Live well;
- Function as a positive part of their environment;
- Respect the rights of others to use the same resources.

Every building must meet specific needs in eight basic categories that are common to all natural communities:

- energy
- suitable air quality
- water
- resource cycling (the sustainable approach to “waste management”)
- suitable habitat
- communication
- transportation
- aesthetic and spiritual fulfillment

The following process and standards are intended to help create buildings that meet these needs and simultaneously achieve Five Fundamental Objectives of Sustainability:

- Efficient Resource Use, including Energy, Materials, and Water
- Minimal Toxicity Of Materials And Processes
- Preservation And Restoration Of Natural Systems
- Quality of Community
- Economic Viability

Economic viability is a fundamental objective, and unrealistically expensive approaches to meet other objectives are not considered sustainable. In practical terms, this means that in the short-term, no building or community can “do everything” or be considered the ultimate achievement in sustainability. We have to contend with several hundred years of habit and infrastructure that do not contribute to sustainability. The important thing is to take steps in the right direction, and make the best effort possible in the specific context of each building. ***To this end, the architect of each project will be required to submit a written evaluation of the ways in which the project is environmentally sustainable, with reference to the five fundamental objectives above.*** When evaluating costs, it is essential to consider ongoing operating expenses as well as initial outlay. Typical payback periods for energy efficiency investments, for example, are on the order of one to three years; after that, these investments make money for the owner. Some lending institutions offer preferential mortgage rates for homes incorporating resource efficient designs because these homes will have significantly lower operating costs.

A. Site Visit, Analysis, and Survey

The first step in the design process is to inventory the existing assets of the surrounding environment. This is the context to which the design must respond, and the resource base that can support the functions of the building.

1. Following a complete tour and orientation to the Island, each owner, architect and landscape architect must visit the site and conduct a visual survey of the setting, the immediate surroundings and the broader environment. It is important that all designers understand the unique amenities of the site and of its larger context.

2. A detailed site analysis is required for each lot. This must include parts of surrounding areas and take into account the potential impact of the building site from key vantage points, including neighboring lots. The site analysis should include the following:

- a. North arrow.
- b. Identification and description of views and vistas.
- c. Descriptions of special or unusual features on the site and outward, to note all amenities such as marshes, ponds, tidal creeks or the ocean.
- d. To assist with the site analysis, a thorough survey of land form (topography) and vegetation should be prepared. The survey should extend as far into the adjacent lots, or areas, as necessary in order to assure the designer pays careful attention to all environmental issues. Indicate location and description of significant existing plant materials, including those extending onto portions of adjacent lots. Utilities locations should be noted. Contours should be shown at one foot intervals. The survey shall show the location and footprint of any buildings on adjacent lots (Figure 1).

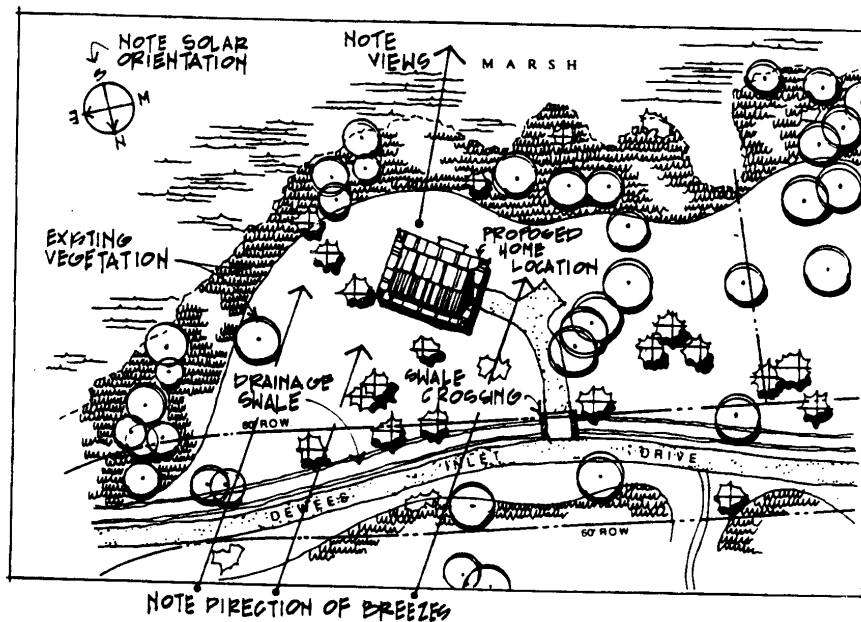


Figure 1: Considerations for Site Evaluation, Sample Plan

B. Site Planning

Integrating the home design with the natural island environment is critical to preserving the character of the Island. Minimizing the impact on neighbors and the environment should be the primary objective for site planning. Each home site provides unique design opportunities and limitations. Correctly evaluating the property will yield an optimal and unique site design. The survey will be the key document used in evaluating your site. It should be used as a base sheet when formulating a site plan. Important things to consider when evaluating your property:

1. Standards for Efficient Resource Use

a. The Path of the Sun

Incorporate natural systems, such as sun and wind, into home site selection and design. The main living areas, outdoor living areas, interior daylighting and climate will be affected by solar orientation. Since the sun's angle during the summer months is higher than the winter sun angles, roof overhangs and deciduous trees can be used to block the heat from the sun. Conversely, the proper roof overhang may allow the sun's rays to penetrate and warm your home during winter (Figure 2). Climatically appropriate design solutions are encouraged.

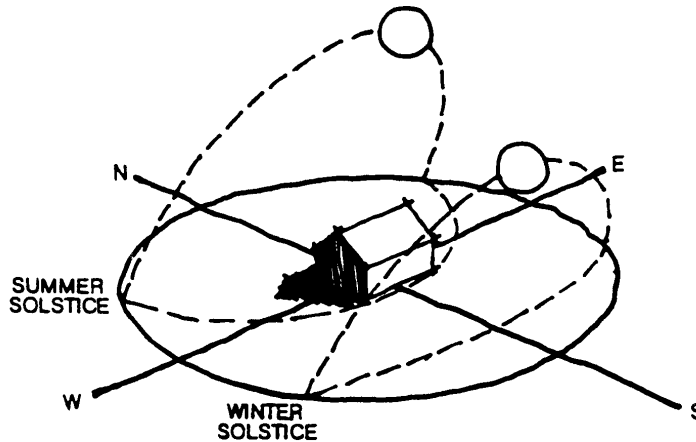


Figure 2: The path of the winter sun contrasted with that of the summer sun.

b. Breezes

Orient your home to take advantage of the prevailing summer breezes. Consider how this effects placement of plant material, indoor and outdoor living spaces, and trash receptacles. Depending on the particular site, you may want to use evergreen trees or some other screening to block winter winds. Conversely, you may leave areas open to take advantage of the prevailing summer breezes from the southwest (Figure 3). Consider the value of natural ventilation and passive cooling when developing the program and budget for your home on Dewees Island.

c. Outdoor Living Areas

What are your preferred locations for decks or screened porch areas? Note the location of natural site features, the neighbors, sun exposure, breezes, and views.

d. Irrigation

Conventional irrigation systems are not permitted on Dewees Island as they conflict with the design philosophy of landscape integration and the conservation of natural resources. By planting on the Island, you are making a permanent contribution to the ecosystem and the plant should behave as such. Making all plant selections that are xerophytic (drought-tolerant) will make this much easier to accomplish. Selecting plants for the soil and sun/shade conditions of your site will ease acclimation of the plant to the location and will promote deep root systems that will thrive on existing ground water. Shallow root systems are encouraged by irrigation and require continued reliance on supplemental water. Xeriscaping and intelligently placing plants should negate the need for excessive supplemental water. Water is a valuable and limited resource and should be utilized wisely. If an irrigation system is needed for extreme dry periods, a drip method system utilizing rainwater collected in cisterns is the only approved system. No individual wells will be permitted.

2. Standards for Waste Reduction and Minimal Toxicity of Materials and Processes

a. Fertilizers, Pesticides, and Composting

Fertilizers and pesticides shall be limited to organic types and practices. Where no ecologically sound alternative exists, toxins should be minimized and handled to avoid waste and spillage. Such toxins are to be approved by the Dewees Island Environmental Program Director prior to their use. Composting of kitchen and landscape waste is recommended. Composting is a good way to recycle nutrients from Island landscape waste that would otherwise be disposed of and removed from the Island food chain.

b. Design for Construction Waste Management

Design of homes on Dewees Island must consider waste reduction and toxicity of materials and processes. Not only should materials used in construction of the home be the least toxic, but also the waste produced as these building products are used should be minimized, be recyclable, or be reusable. By designing homes so that construction waste is reduced, the cost of construction on a boat-access-only island is also reduced.

c. Household Waste Management

Home designs should be such that separation of domestic recyclable materials is easy and convenient. Household waste must be separated into three groups: compostable, recyclable, and non-recyclable materials. Recyclable materials include glass, cans (tin and aluminum), plastic bottles, and various paper products. Contact the Dewees Island Nature Center for a complete list of recyclable materials.

3. Standards for Preservation and Restoration of Natural Systems

a. Trees and Natural Habitat

**Addenda April '03*

*Natural vegetative habitat including trees, shrubs, grasses and wildflowers must be preserved. (See Appendix #11, Vegetative Management Plan)

Trees may be introduced to provide shade, wind breaks, or privacy screening as previously mentioned in the site planning section. Tree types mentioned in the plant list will provide a variety of scales, canopy, and seasonal interest from which to choose. All tree varieties must be shown on the Landscape Plan and approved by the A.R.B. All vegetation introduced to the Island must be native to the Coastal Plain of South Carolina.

**Addenda August '11*

If a Palmetto (*Sabal palmetto*) is growing within the house footprint the site plan must indicate where each tree will be relocated on the lot.

b. Driveways

When locating the driveway, avoid entering the root zones of existing trees (which lie within the drip line of the tree canopy), do not follow natural drainage swales, or remove trees. Driveways should preserve natural site features (Figure 4).

**Addenda October '11*

* Provisions for emergency access to the house should be considered by allowing a 12 foot by 12 foot wide area free of trees and within this an 8 foot wide road bed. Only one driveway entrance per lot is allowed.

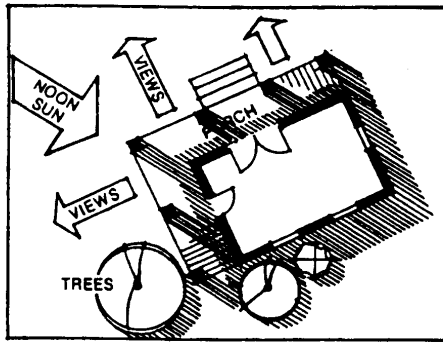


Figure 3: Locate outdoor living areas to take advantage of natural site features.

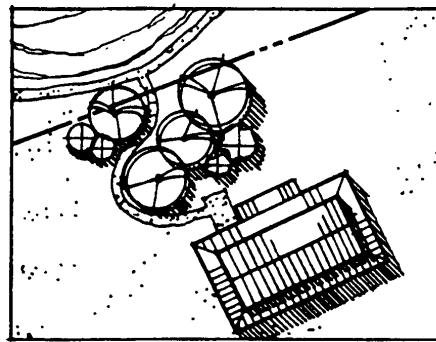


Figure 4: Driveways should meander through the site naturally, preserving site features.

Driveway material shall be of natural sand, crushed oyster shell, wood chips, or natural ground cover. Driveway width shall not exceed 12 feet. Minimizing width and following existing grades will limit the need for swales, thereby reducing disturbance.

c. Drainage

Note any existing drainage or piping, and how the house location might affect site drainage. Wetland portions of the Island are protected by law and must remain intact.

d. Walkways and Wetland Bridging

No impervious material will be permitted; natural sand and pine needle mulch walkways or crushed oyster shell walks are alternatives. Boardwalks may be utilized, if necessary, for crossing uneven or sandy terrain (Figures 5 and 6).

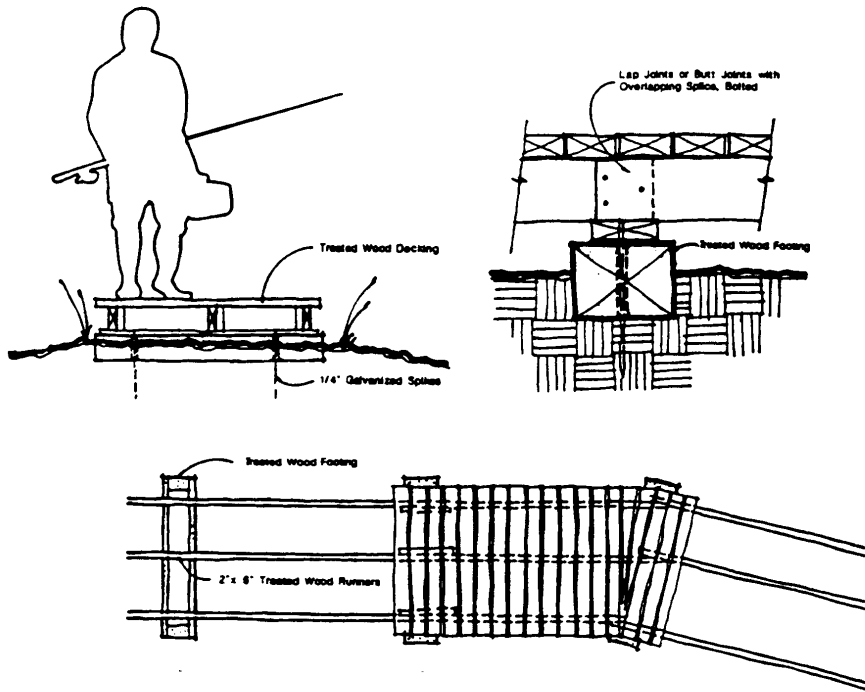


Figure 5: Boardwalksand Wetland Bridging.

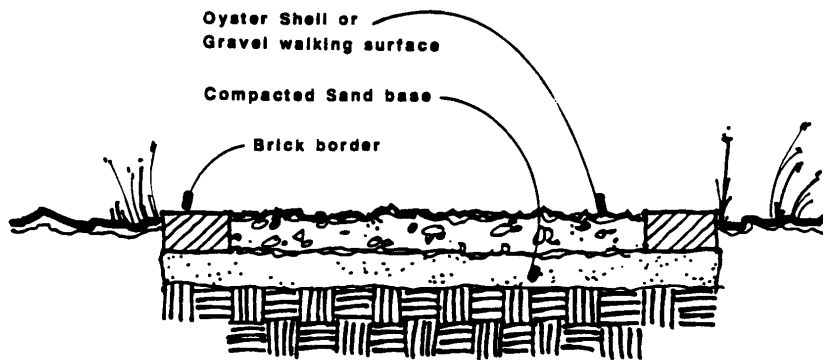


Figure 6 Walkways at grade.

e. Property Setbacks

Property setbacks are outlined in the setbacks table which follows. All setbacks are to face of structure or building wall, including decks and porches (Figure 7). Those lots with reduced front yard (30 ft.) and critical line (10 ft.) setbacks will be required to mitigate the reduced setback with additional landscaping. This planting/landscaping enhancement plan must be submitted with the sketch review submission.

SETBACKS TABLE

SETBACK FROM	Lots 1-13	Lots 14-30	Lots 31-87	Lots 88-101	Lots 102-132	Lots 119-132	Lots 133-136	Lot 137	Lots 10DI-11 DI
Front yard	50 ft.	50 ft.	50 ft.	30 ft.	30 ft.	50 ft.	50 ft.	50 ft.	50 ft.
Side yard	25 ft.	25 ft.	25 ft.	25 ft.	25 ft.	25 ft.	25 ft.	25 ft.	20 ft.
Rear yard	25 ft.	25 ft.	25 ft.	25 ft.	25 ft.	25 ft.	25 ft.	25 ft.	25 ft.
Critical Line at Marsh	25 ft.	25 ft.	25 ft.	25 ft.	10 ft.	25 ft.	25 ft.	25 ft.	25 ft.
Impoundment	NA	NA	25 ft.	NA	NA	25 ft.	15 ft.	10 ft.	NA
Seasonal Wetlands	10 ft.	2 ft.	10 ft.	10 ft.	10 ft.	10 ft.	10 ft.	10 ft.	10 ft.
Freshwater Ponds	25 ft.	25 ft.	25 ft.	25 ft.	25 ft.	25 ft.	25 ft.	25 ft.	25 ft.
Nature Preserve	NA	NA	NA	10 ft.	NA	NA	10 ft.	10 ft.	NA
At Front Beach	Building Restriction Line	Building Restriction Line	Building Restriction Line	NA	NA	NA	NA	NA	Building Restriction Line

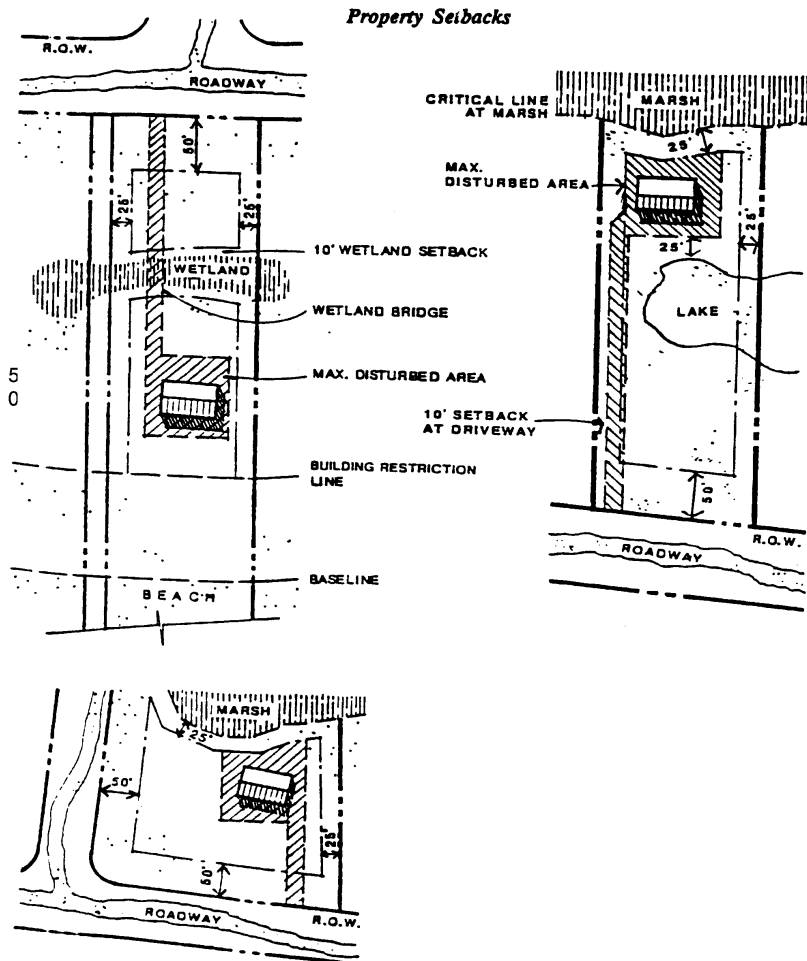


Figure 7: Property Setbacks.

f. Fencing

To preserve a natural sense of open space, fencing of any type will not be permitted (with the exception of pool fencing). If privacy fencing or screening is desired, explore options with plant material to create the desired effect. If a pool exists on the site, appropriate fencing will be required. According to the American Public Health Association, all outdoor swimming pools must have a protecting fence, wall or another type of enclosure which completely encloses the swimming pool area.

g. Grading

The existing topography of the site is to be maintained to the greatest possible extent. Only minimal grading under the house footprint is allowed.

h. Maintenance

Consider the mature size of plant material you are introducing so that the design grows in harmony with the landscape and maintenance will be minimized. When pruning is needed, follow pruning guidelines that will preserve the native species. Manicured hedges and shrubs will produce a formal appearance not in keeping with the native landscape and are therefore discouraged. Grass lawns are not permitted. (See Appendix #12)

i. Swimming Pools and Spas

Pools and Spas are permitted on individual lots. However, pool area is counted as disturbed area and must be considered in your planning calculations. Pools will not be permitted seaward of the Setback Line. Pools or spas may not be filled from the island water system; they may be filled with collected rainwater only. Purification of pool or spa water must be by a non-chlorine method. Drainage of spas or pools may not be discharged into home site or community sewer systems. Drainage should be into a holding tank; after holding for several days for purification agents to evaporate, this water may be slowly released into the ground or used for irrigation. Water treatment and disposal methods must be reviewed and approved by the A.R.B. and Utility Corporation.

Pool Fencing Requirements:

- (1) No external handholds or footholds.
- (2) Mandatory use of childproof materials.
- (3) Four foot height enclosure.
- (4) Spacing between horizontal and vertical elements shall not exceed 2 inches.
- (5) The bottom of the enclosure shall not exceed 2 in. from grade.
- (6) The use of chain link fencing is prohibited. Wood or ornamental iron fences are preferred. All gates and doors shall be equipped with self-latching closure mechanisms located at 3 ft. height, and shall be equipped with permanent locks.
- (7) Separate enclosure for all filters, pumps, chemical feeding apparatus, and other mechanical equipment is required.
- (8) These fencing guidelines are supplemental to the local codes and shall not supplant more restrictive regulations.

j. Plant Selection

Only plants native to the coastal plain of South Carolina may be used in landscaping. We encourage you to study the soils map and to become familiar with the property you have chosen. As you begin to landscape and re-vegetate, use as many plants native to your habitat as possible. (Appendix 1) We recommend caution when locating a commercial source for these plants as some nurseries take their plants from the wild. Make sure your nursery has a "no digging in the wild" policy. It would be wrong to destroy another habitat to create ours.

k. Site Preparation

A maximum of 7500 square feet of permanently disturbed area will be permitted on any home site. This limitation is necessary to preserve the natural environment of Dewees Island, and to prevent destruction of native vegetation, and other natural features, such as wetlands, and to enhance the regeneration of the maritime forest. Outside the disturbance area all vegetation removal, other than normal maintenance, must be approved by the A.R.B. prior to any clearing. Areas of disturbance include building footprint, driveways, pathways, porches, decks, patios, utility easements, trampled areas, or other permanent intrusions. Areas temporarily disturbed for construction access or staging must be reclaimed (Appendix #6). Site preparation and all aspects of construction must avoid damage to trees and their roots. (Figure 8).

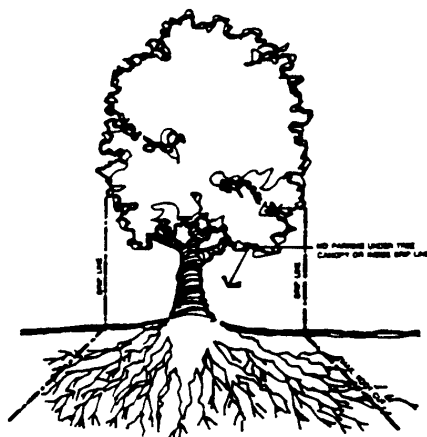


Figure 8: Extreme care must be taken to protect roots when digging, grading, storing materials or moving equipment near trees as they are very susceptible to root damage. The soil covering roots must be protected from compaction, and mulched lightly to maintain aeration.

4. Standards for Quality of Community

a. Views

When selecting a site, consider all prominent views and take advantage of any natural views. While deciding which views are best, take into account the location of neighbors, any future development on adjacent properties, and the view others will have of your home.

b. Cart Parking & Boat Storage

**Addenda November '04*

*To lessen visual impact, cart parking and boat storage should ideally be planned for under the home. As all homes on the island will be on high pilings, this can easily be accommodated if when designed, the driveway and parking area are wide enough for boats and trailers. Keep this in mind when locating your driveway, and under-house access points. In the event that lot restrictions, i.e. accesses blocked by trees or wet lands, and/or the purchase of an existing home, do not allow for under-house storage, a Property Owner may provide watercraft storage in a properly screened area. This area must be within the maximum permanently disturbed area of the property, and not unsightly viewed by neighbors. Any screening must be of vegetative materials consistent with ARB Guidelines. Plans for such screen delineating the size, design, texture, appearance and location must be approved by the ARB prior to construction.

*Cart and boat storage is available at designated community facilities and must be utilized if adequate storage, as described above, cannot be found on any individual lot

c. **Building Height Limitations**

The maximum height of any roof element, with the exception of chimneys, is not to exceed 52 feet above mean sea level (Figure 9). The height to the mid-point of the dominant roof area is not to exceed 40 feet, relative to the average elevation of the grade within the building footprint. Flat roofs are not permitted; however, a small railed observation deck at roof level may be approved at the A.R.B.'s discretion. The minimum roof pitch permitted shall be no less than 4:12.



Figure 9: Building Height.

The FEMA and Charleston County regulations set the minimum elevation above grade at which structures may be built; however, it is important to consider other factors in the final decision about a building's height (Appendix 10). There are some favorable insurance issues if building above the minimum elevation is possible. The concept of nesting within nature should be taken literally. The tree canopy is a prominent feature of the Island and should be respected. You are encouraged to keep the roofline within the tree canopy and are permitted only minimal penetration of this feature. Exceptions may be approved by the A.R.B. due to unusual site conditions. Height certifications will be required (Form 10, Construction Process Review).

5. **Zoning**

Deweese Island is zoned Agricultural General (AG). (Refer to the Charleston County Zoning Ordinance for additional zoning information)

C. **Architectural Design**

Creative architectural solutions are encouraged to complement the uniqueness of each site, to express the design concept of the individual property owner and to contribute to the Island as a whole. Integrating the home in harmony with the sea island environment shall be the theme of the architecture on Dewees Island (Figure 10).

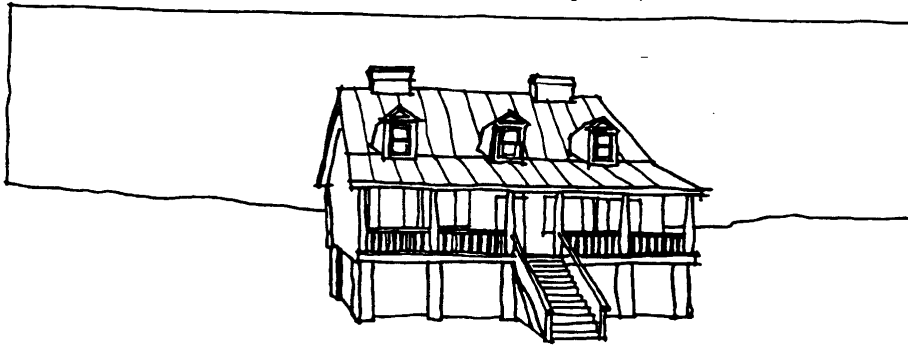


Figure 10: A typical lowcountry cottage.

1. Standards for Efficient Resource Use

a. Structural Frame

No large dimension solid lumber (greater than 2 x 12) is allowed. The use of engineered, manufactured lumber products is encouraged to reduce construction waste and the use of limited timber resources.

b. Siding

* Addenda November '04

*Siding material shall be wood, cement board or other environmentally compatible materials approved by the A.R.B. The use of stucco and/or tabby shall be limited to fireplaces and chimneys only. The use of masonry shall be limited to use as a substrate material for fireplaces and chimneys only. Aluminum, plywood, and vinyl sidings are not allowed. High-quality, weather resistant woods such as cypress, cedar, or treated pine are preferred. Woods that are from endangered species should definitely be avoided. Your lumberyard should have a current listing of these species. Tropical woods should be certified as plantation grown.

c. Roofing

Roofing materials are to be high quality, standing-seam metal, and slate or approved tile. Composite asphalt or fiberglass shingles are not permitted for original or re-roofing. Re-roofing includes any instance when more than 50% is required to be replaced after physical damage.

d. Windows

Installing quality windows in the island home is essential. The windows must not only meet the higher physical demands of the sea island environment, but also integrate into the design in an attractive manner. Thermal glazing, and low-E glass, are preferred. Any uncoated framing material will be subject to corrosion and decay. Wood windows are to be stained and sealed, painted or vinyl clad. Shutters must be fully functional.

For all window and glass door openings, a hurricane protection system must be designed and approved as part of the building program. This may include operable hurricane shutters, plyboard inserts, or storm resistant glazing systems. Owners will be responsible for activating their storm protection method without the assistance of Island staff.

e. Porches & Decks

Essential elements for gracious island living are covered porches and exposed decks. Screened porches allow breezes to enter the open windows, shade interiors from the sun, and provide a pleasant transition from outdoors to indoors. Combining covered screened porches and decks is recommended. Decks must be constructed of high quality cedar, cypress, redwood, treated lumber or an appropriate environmentally sensitive substitute. Detail elements such as stairs and guardrails should possess a level of detail in keeping with traditional architecture. Finishes shall be weather resistant stains or sealers. (Figure 11).

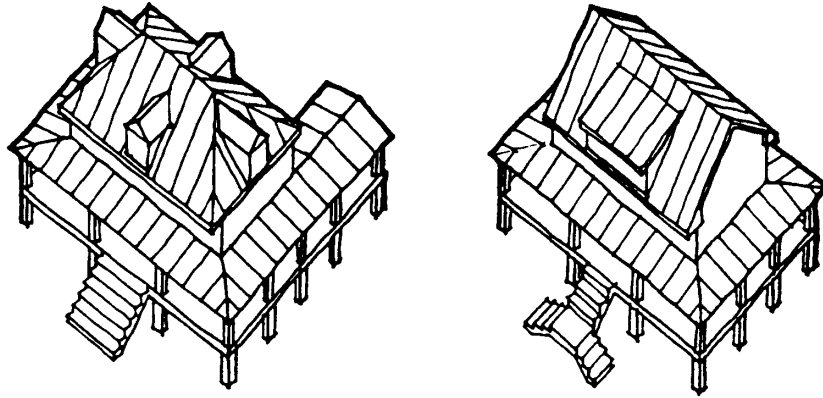


Figure 11 Porches and Decks

f. Mechanical Systems

** Addenda April '03*

*Houses should be designed to use natural ventilation as the norm. Mechanical systems should be considered supplementary. The use of geothermal heat pump systems should be considered in comparison to SEER 14 or higher air-to-air units. Conditions on Dewees are ideal for these systems, providing for maximum efficiency combined with the lowest energy usage/expense. Geothermal systems are quiet and include no exterior mechanical components exposed to the salt air environment, but have a significantly higher initial cost that should be life-cycle costed against the air-to-air systems. When using air-to-air heat pumps, use of minimum SEER 14 equipment is highly recommended for improved energy savings with reasonable payback. Higher SEER rated equipment should be considered.

- (1) Air handling units centrally located, all ducts reduced as much as possible. HVAC units sized to less than 1.5 times the load at the design temperature.
- (2) No ducts in outside walls or attics unless ducts have the same R -value as the adjoining assembly.
- (3) No unsealed wood burning fireplaces or wood stoves.
- (4) Thermostat with "fan only" option for HVAC to circulate air.
- (5) Ceiling fans in all of the major living spaces in the house.

** Addenda April '03*

* (6) HVAC ductwork joints sealed with mastic. A duct blast test is recommended to verify that the duct system is performing properly.

g. Air Infiltration

** Addenda April '03*

*Since infiltration of unconditioned air is one of the most significant causes of energy use, care should be taken to properly wrap the home with building felt or a designated 'house wrap' product suitable for the high humidity conditions on Dewees. All window and exterior door openings should be sealed with waterproof mastic flashing. All other penetrations in exterior surfaces should be sealed with expanding foam sealant designed for this purpose.

h. Plumbing and Water Heating

(1) Only water conserving plumbing fixtures should be used. Low-flow toilets are mandated.

**Addenda November '04*

*(2) All new construction must be designed to protect all water supply and drain lines from subfreezing temperatures. This can be accomplished by installing water shut-off valves in conditioned areas in order to drain all lines from finish floor elevations to existing grade elevations. All water lines should be installed in a conditioned chase and all hose bibs, outside shower lines, fish cleaning stations, etc. should have isolation valves capable of being drained prior to subfreezing temperatures. Insulation and heat tape should be installed on all exposed piping.

(3) Water heater(s) to have energy factor (EF) of more than 0.60.

(4) Water heater(s) to be located within 25' of prime use locations.

** Addenda April '03*

*(5) Consider the installation of a rainwater storage cistern and associated plumbing. Cisterns are required if landscape material is to be added to the natural landscape, and is highly recommended in all cases.

i. Appliances

** Addenda April '03*

*Selection of Energy Star rated appliances is highly recommended for reduced energy and water consumption.

(1) Dishwasher with energy-saving cycle.

(2) Clothes washer allows for cold wash and rinses in cold water. Water-saving, front-loading models are encouraged.

(3) Clothes dryer with automatic dry sensor shut off.

(4) Refrigerator with CFC-free insulation.

**Addenda September '05*

*(5) Consider a continuous flow water heater system as an alternative to the traditional tank system.

(6) Refrigerator is more than 36 inches from range, cook top or oven.

(7) No in-sink type garbage disposals may empty into the Island's sewage/septic systems. An option is to mount it in a supplementary sink (such as a bar sink) and plumb it independently and directly to a composting receptacle.

j. Lighting/Electrical

(1) Site lighting should be kept to a minimum, and used solely to provide night visibility for pedestrians. Flood and spot lights can be disorienting to wildlife and will not be permitted. Outdoor lighting may be accomplished by indirect means such as shielded path lights, or step lights. The casting of light shall be contained within your disturbed area. All lighting should be as energy efficient as possible.

(2) Consider low-voltage lighting for porches, decks and stairs.

(3) Use standard fluorescent fixtures and compact fluorescent light bulbs in incandescent fixtures wherever possible. Note that recessed ceiling cans may need to be of a special type to receive compact fluorescent flood or spot bulbs.

2. Standards for Minimal Toxicity of Materials and Processes

- a. Any exposed particle board is painted with sealer including the inside of cabinets and the underside of counter tops.
- b. All stains and paints used are required to be non-toxic and low VOC or VOC free.
- c. Exhaust from electric cooktop to circulating charcoal filter or to exterior with self-sealing damper.
- d. Exhaust from gas cooktop, oven, grille and clothes dryer to exterior with self-sealing dampers.

3. Standards for Preservation and Restoration Of Natural Systems

a. Home Size

Houses of great size can overpower the delicate scale of the Island environment. All homes built on the Island are limited to a maximum of 5000 sq. ft. of heated area.

b. Insulation.

** Addenda April '03*

*No CFC or HCFC insulation is allowed. Chlorofluorocarbon (CFC) and hydrogen chlorofluorocarbon (HCFC) are considered major contributors to the destruction of the Earth's ozone layer. While HCFC is 1/20th as potent as CFC in its ozone-destroying capacity, any amount of additional threat to the ozone layer can be dangerous, due to the long-term potency of CFC's (the current ozone damage is generally attributed to CFC's released 10 to 15 years ago). Twenty percent of ozone damage is caused by CFC's in insulation.

*Minimum insulation values should be as follows:

- walls: 2 x 4 walls R-15 2 x 6 walls R-19
- floors: R-19
- attic/ceilings: R-30

*Acceptable insulation types include:

- Cotton batts, if properly treated for fire and mildew resistance (ex. Ultra-Touch)
- Cellulose, if properly treated for fire and mildew resistance.
- Fiberglas batts; not recommended are encapsulated batts due to potential moisture retention within the batt itself.
- Mineral fiber insulation
- Expanded polystyrene (EPS)
- Polyisocyanurate
- Icynene
- Blown semi-rigid polyurethane foam

For an in-depth comparison of insulation types, see [Environmental Building News](#).

c. Radiant Barriers

** Addenda April '03*

*Since the major cause of heat gain in summer is from solar energy absorbed through framed walls and roofs, radiant barriers (film or sheathing) on the South and West wall is recommended. Likewise, use of a radiant barrier OR reflective roofing material is recommended for roof areas

4. Standards for Quality of Community

a. Materials & Exterior Articulation

More than size and shape are needed to give a house the distinctive character that is found in a traditional coastal home. Quality materials and a high level of detail can make a home uniquely personal to its owner. Handrails, stairs, chimneys, window and door moldings are all areas where quality and creativity can contribute to the enhancement of your home. Samples of exterior materials in the color chosen shall be submitted to the A.R.B. with the drawings.

b. Color

Colors that are traditional to the low country are encouraged. Color schemes should take into account roof, deck, siding, door and trim colors. The color design should be cohesive; wide variety of trim color is not desired. Exterior quality stains are recommended for all exterior woodwork, although doors and some trim may be painted. Doors are not required to have the same color as the trim work. The use of light roof colors for reduced heat gain is encouraged. All finishes are to be submitted to the A.R.B. for approval.

c. Pilings & Underpinning Screening

Jetted pilings are not permitted. Driven wood pilings may be boxed out and finished with siding similar to that of the main home. Stucco will not be allowed. The underside of homes should be screened with a stained or pressure-treated wooden one-way or two-way lattice in areas where required to screen storage areas, cart parking, and boat storage. Wooden louvers or other designs will be considered.

d. Signage

Signage used to display a street number, home name or identify the homeowner must be approved by the Architectural Resource Board prior to installation. All other signage is prohibited.

e. Equipment Screening

** Addenda October '11*

* All equipment that must reside outside of the home such as HVAC and tankless water heaters must be screened from view.

A built enclosure will likely be the best approach. Enclosure of equipment should occur at or above the BFE. Materials should be the same as those used to screen the underside of the house. One-way, or two-way lattices of stained or pressure treated wood are common types of screening. The use of ground source heat pumps eliminates the need for exterior equipment and its enclosures.

f. Life Safety

As technology continues to develop, it becomes easier to make your home a safer place. The security of your family's well-being should be an important issue as you begin the planning of your residence. An additional consideration for the implementation of these safety features is in the area of insurance. Premiums should favorably reflect the inclusion of these safety devices. All homes at Dewees will include, as a minimum, the following safety features:

** Addenda August '06*

*(1) Detection: An approved, labeled smoke detector installed in accordance with National Fire Protection Association (NFPA) 72-11.5.1.1 (Smoke Detection) items 1, 2, 3, including but not limited to all sleeping areas which shall be wired into the building wiring for primary power and be connected to a central monitoring system.

*(2) Notification: All smoke detectors shall be wired in tandem as to notify all occupied dwelling areas and shall comply with NFPA 72-11.5.1.2. All smoke detectors shall also be connected to a central monitoring system.

*(3) A residential grade fire sprinkler system in accordance with NFPA 13R or 13D for single family dwellings, connected to the domestic water supply and a central fire monitoring service. Water based suppression systems shall be inspected and maintained in accordance with NFPA 13R and NFPA 25 Table 5-1.

*(4) Individual fire extinguishers strategically located in areas such as the kitchen and near fireplaces. It is suggested that large industrial cooking appliances be protected by an automatic hood suppression system and connected to a central monitoring system.

*(5) Heat detectors installed in the grade level area of the dwelling and connected to a central fire monitoring service.

*(6) A central fire monitoring service for notification of designated local authorities and Island security in the event a life safety device (smoke detector, fire sprinkler, heat detector) is activated.

**Addenda June '11*

*(7) Failure to install and maintain a central monitoring system will result in a fine of \$3,500.00, payable n 30 days from your notification of deficiency. They system shall be continually monitored by a third party.

*These requirements are supplemental to NFPA 72 Chapter 11, and shall not preclude the adherence to any building code requirements. It is the responsibility of the owner/builder to become familiar with all aspects of NFPA 72 Chapter 11, NFPA13R, NFPA13D as well as the addenda set forth by the local authority having jurisdiction.

g. Trash Can Enclosures

Trash can enclosures must be as inconspicuous as possible. ***Trash can enclosures must be rodent & raccoon proof and should be located in a screened area under the house.*** Trash can enclosures must be in place once the first floor deck is in place (Figure 12).

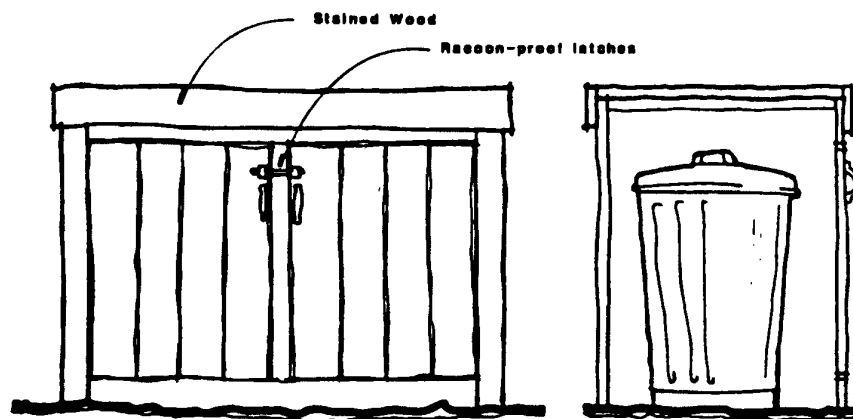


Figure 12: Typical details at Garbage Can Enclosure.

h. Mail Boxes

No mail boxes are allowed on the home sites. All mail will be delivered to a central mail facility (post office) located at the Landings where individual post office boxes are available.

i. Home Amenities

- (1) Garbage Disposal units put undue stress on the sewage/septic systems of the Island. No buildings on Dewees Island are permitted to have garbage disposal units. Kitchen waste should be composted and used as a natural fertilizer.
- (2) Trash compactors are not permitted on the Island due to the reduced biodegradability of compacted garbage (Section V, B.2.c., "Household Waste Management").
- (3) Battery recharging stations for golf carts should be provided at each home. These should be located under the home with the electrical outlet(s) mounted above the BFE.

j. Improvements

No alteration affecting the exterior appearance of any home or structure shall be made without first obtaining A.R.B. approval. All requests for building color changes, major landscaping changes, changes or additions to any structures shall be submitted along with the completed Dewees Island A.R.B. Form 8 - Application to Make Improvements.

VI. REVIEW PROCESS

The Architectural Resource Board will meet at least once each calendar month to respond to each submittal and will generally be supportive and constructive with positive encouragement of each design approach to emphasize compatibility with overall Dewees Island philosophy. Submissions must be received by 5:00 pm on the submission date. Any omissions of requested data for each of the three reviews will result in rejection from the current review process. Each submittal must include a written response to any A.R.B. comments from the prior review. Only submittals received from title holders of the property will be reviewed. Permits will only be issued when applied for by title holders of the property.

While the A.R.B. is willing to review construction or landscape Master plans, or 2-phase plans, it will only approve those drawings representing work to be implemented immediately or in phase I.

A. Sketch Review: First Submittal

Prior to the start of the design process and any submittal, the architect and landscape architect must have visited the site and received a guided tour of Dewees Island. After this the Architectural Resource Board will conduct an early sketch review (before 10% of Schematic Design Phase) of preliminary concepts prior to the preparation of design solutions. This review will provide early project support in principle with suggestions if necessary, to keep the design process moving along without delay. The owner and design professional must be present at this review. The documents necessary for this first submittal are:

- 1. Survey**
 - a. *Must be made by a South Carolina registered surveyor.***
 - b.** Scale should be at least 1" = 20'.
 - c.** Legal description of the property including tax map number, and acreage of property.
 - d.** Title with name of legal owner, surveyor, and surveyor's seal.
 - e.** Location and width of easements.
 - f.** Property lines with bearings and distances.

- g. Show all easements and Dewees Island building setback lines.
- h. Show existing topographic contours at one foot intervals indicating elevations above sea level.
- i. Show relocation sites for Palmettos growing within the house footprint.
- j. Location, type and diameter of all trees 6" in diameter and larger at chest height.
- k. Location of existing roads, utilities and any other improvements.
- l. Locations of all wetland areas, streams, drainage ditches, or drainage structures.
- m. Show relationship to marsh, lakefront, or oceanfront.
- n. Location of the OOCRM's Base Line or Critical Line.
- o. Note flood hazard area of the site and Base Flood Elevation (B.F.E.).
- p. Location of adjacent homes and approximate footprint.
- q. North arrow.

2. Site Analysis

** Addenda January '16*

A site analysis shall be presented at a scale of at least 1"=20' depicting the site data gathered. The analysis should be drawn on a copy of the combined tree and topographical survey, prepared by a Licensed Land Surveyor, * showing the location etc. of all trees 6" and larger in diameter at chest height, property lines, easements, setbacks, contour lines, wetlands and other prominent natural features. This site analysis should include, but not be limited to, sun analysis and prevailing wind directions at all four seasons, drainage, views, adjacent homes and driveways, site access and areas providing minimal or maximum privacy. A bubble diagram or sketch floor plan of the main living level of the house should be shown in the chosen position (Appendix 7).

3. Owner/Architect Agreement Certification

Provide a certification that the Owner/Architect Agreement includes all the Architect's Services required by these Guidelines (Appendix 15). The architect will supply a copy of the contract (without financial disclosure) to be kept on file by the ARB.

4. Sketch Plans

Sketch plans shall be presented showing the general function layout and massing of everything to go on the lot including, but not limited to, the conceptual floor plan of the home, other out-buildings, drives, parking, service areas, septic tank fields, walks and all major amenities such as pools, terraces, decks, landscaped areas, gardens, etc. A north arrow and sun/wind chart should also be shown. The purpose of this plan is to sensitively fit the entire program, buildings and everything outside, to the site and surrounding environs. Sketch elevations and sketch building sections are highly recommended as well (Appendix 8).

5. Evaluation of ways to date in which project is environmentally sustainable (Form 9)

6. Completed A.R.B. Form 1 — Application for Sketch Design Review

7. Submittal Fee (Appendix 4, "New Residence")

Once these materials have been received, and approved by the Architectural Resource Board the designers can proceed with the design of the house.

B. Preliminary Design Review: Second Submittal

Following sketch submittal approval, the architect and landscape architect should prepare schematic design of buildings and grounds. Schematic sketches, dimensioned drawings, models and perspectives are most appropriate for preliminary submittals. Regardless of what form of presentation is used, a representative of the Architectural Resource Board will preview all submittals and will not present a project to the Board for preliminary review unless the following are completed, and have been submitted:

1. Site Analysis

The site analysis submitted for sketch review is to be updated to reflect the conclusions of that review and to present further discovered information.

2. Schematic Landscape Plan

A site plan at a scale of at least 1"=20' showing the location of the house, driveway, walks and amenities with proposed landscaping concepts as intended to help integrate the building with its environment and to provide for positive drainage must be submitted. Recommendations for an appropriate irrigation system must also be included at this time.

3. Dimensioned Site Plan

The site plan drawn at a scale of at least 1"=20' must show the roof plan of the house and contain dimensions demonstrating conformity with all required easements and setbacks. Driveways and walks must be located along with proposed service yards, adjacent structures, septic tanks and fields, electric meters, trees to be removed, first floor elevation (FFE), screening of roads and neighbors. The permanent disturbance area of no more than 7,500 sq. ft. must be located on this site plan, as well as any additional temporary disturbance area which will be returned to its natural state by contractor upon completion of construction (Appendix #6).

4. Floor Plans

- a. Drawn at a scale of 1/4"= 1'-0", or 1/8"=1'-0" these floor plans should include each floor, mezzanine and ground level plan.
- b. Label all rooms.
- c. Ground level plan to indicate pilings, enclosures, driveway location, stairways, garbage collection area, and vehicle parking and storage.
- d. All windows and doors with swings shown.
- e. All overhanging floors and roofs to be shown as dashed lines.

- f. All fixtures, cabinets and appliances shown.
- g. Overall dimensions of building.
- h. Location of HVAC and utility equipment.
- i. North arrow and sun/wind chart.

5. Elevations

- a. Drawn at scale of 1/4"=1'-0", or 1/8"= 1'-0.
- b. Show how building relates to grade.
- c. Show any screening types and locations.
- d. Indicate overall height from mean sea level to ridge of roof with no element except chimneys to exceed 52'-0". Minimum pitch shall be no less than 4:12.
- e. Indicate floor and deck elevations from grade.
- f. Label all exterior materials and finishes, including siding, wood finishes, roof finishes, trim, rail, shutters etc.

6. Building/Site Section

A section drawn at 1/8" or 1/4" scale showing the relationship of the interior and exterior spaces with the natural topography.

7. Preliminary Stake-out

At the time of preliminary submittal, the corners of the house should be staked on the lot. ***The house and driveway must be staked out on the lot with stakes at least 6'-0" tall marking all corners and connected with white twine. Trees to be removed should be flagged with red surveyors tape. Utility areas, and other site amenities will be staked with yellow tape.***

8. The preliminary submittal must include a written response to any A.R.B. comments from the sketch review

9. Evaluation of ways to date in which project is environmentally sustainable (Form 9)

10. Completed A.R.B. Form 2 - Application for Preliminary Design Review

C. Construction Documents Review: Final Submittal

The Construction Documents are prepared after changes are made, if any, from the review of the preliminary submittal. The final stake-out, reflecting any changes, must be completed before submitting for the Final Submittal. A representative of the Architectural Resource Board will preview all submittals and will not present a project to the Board for Final Review unless the following are completed, and have been submitted:

1. Final Stake-out

The preliminary stake-out must be updated reflecting changes, if any, in the location of the house or driveway, amenities and any additional trees to be removed. **No trees or woody understory growth may be removed at any time without prior Board approval.** All underground utilities will be staked and adjusted to save tree roots on this visit.

2. Sample Board and Color Samples

Sample colors must be submitted on actual samples of materials proposed for use. These sample submittals are most important to both the Owner and the Architectural Resource Board in evaluating the final appearance of the house as color chips often vary greatly from actual applications.

- | | | | |
|----|--------------|----|--------------------------|
| a. | Siding color | e. | Shutter color |
| b. | Roof color | f. | Window color |
| c. | Trim color | g. | Exterior rail color |
| d. | Door color | h. | Foundation lattice color |

3. Landscape Plans

Prepared by a landscape architect or professional landscape designer experienced in xeriscaping and use of native plants, the landscape plans must be drawn at a minimum scale of 1/8" = 1'-0", must include a scale representation of all driveways, septic fields, mechanical equipment, landscape lighting with fixture catalog cuts, walks, fences, pools, decks, patios, play structures and planting materials, identified as to size, quantity, common name and variety. The design for an irrigation system and cistern, as appropriate, must be included. All underground utilities must be located on the plans.

4. Dimensioned Site Plan

- a. Similar to preliminary including any changes and proposed utility services.
- b. Construction disturbance boundaries showing protective fencing must be indicated.
- c. Location of construction storage, materials, and job trailer.

5. Foundation and Framing Plan

Plans at 1/4" scale showing locations and sizes of foundation and framing elements and how they relate to nearby trees.

6. Floor Plans

Floor plans must be drawn at 1/4" scale containing all information necessary for construction. A north arrow and sun/wind chart are also required.

7. Elevations

Drawn at 1/4" scale, elevations must accurately represent the view of all sides of the house and other structures. Floor elevations must be delineated and existing and proposed grade levels must be shown. All exterior materials must be labeled.

8. Building Sections

Drawn at 1/4" scale as necessary for clarification or construction.

9. Details

- a. Typical wall sections.
- b. Window and door details.
- c. Exterior walls, fences, or screens.
- d. Privacy walls, as appropriate.
- e. Porch and deck sections.
- f. Exterior trim.
- g. Rails.

10. Specifications

Specifications must be submitted defining the quality of all work and materials, including landscaping. Include specifications showing energy efficiency, water conservation, and toxicity levels of materials, appliances etc. to be used. Include specifications for life safety and security systems.

11. The final submittal must include a written response to any A.R.B. comments from the preliminary review

12. Evaluation of ways to date in which project is environmentally sustainable (Form 9)

13. Completed A.R.B. Form 3 - Application for Construction Document Review

14. Construction Fees (Appendix #4)

Addenda November '08

If the ARB fails to grant final approval of the project, it may require the Owner to correct or resubmit plans for all or any part of the project. If it grants final approval, the Contractor may make application for a Dewees Island construction permit using ARB Form 4. At the time of application and as a condition precedent to issuance of a Dewees Island construction permit, the Owner must submit three (3) sets of complete working drawings and specifications to be stamped as approved by the Architectural Resource Board, and shall pay the Owner's Cash Deposit described in Section VII, Paragraph F to the ARB and the Utility Fees to the DUC all as set forth in Appendix 4. The Owner's Cash Deposit will be returned or withheld in accordance with said Paragraph F.

The Dewees Island construction permit will be required by Charleston County prior to issuing its building permit.

ARB approval is valid for one year after which time the approved documents will be subject to changes in the ARB Guidelines, site condition and adjacent construction. If construction has not begun within one (1) year, a second Construction Documents Review and Review Fee will be required.

D. Review Timing Summary

The Architectural Resource Board will meet at least once a month to review any home designs that have been submitted for review. Please submit two (2) sets of all drawings as well as a digital copy. The deadline for complete submittal will be 5:00 pm on the Monday after the first Friday of each month for review at that month's meeting. If more than five submittals are received for any given month, the excess submittals will be placed on the following month's agenda. Meetings will generally be held on the third Friday of each month, but owners and architects are responsible for confirming the date and time of meetings. It is possible that, in some cases, the Architectural Resource Board may need additional time due to unusual circumstances. In this case, Owner and Architect will be notified.

The checklist used by the A.R.B. for design and construction requirements can be found in Form 11 (Dewees Island Design and Construction Checklist). This may be helpful as a guide during the review and construction process. ***Upon completion of construction the Owner/Contractor must obtain a Dewees Island Certificate of Completion prior to application for Certificate of Occupancy from Charleston County, and occupying the house.***

VII. CONSTRUCTION PHASE

Construction is regulated to promote safety and adherence to the Dewees Island Environmental Guidelines. Follow the procedures outlined in the Review Process for submittal of construction application and deposit forms.

A. Contractors, Architects, and Landscape Architects

Contractors, Architects, and Landscape Architects or Professional Landscape Designers selected to build, or bid for the construction of, a home on Dewees Island must present their resume of qualifications to the A.R.B. and receive an orientation tour of the Island. They also must obtain, and become familiar with, the *Dewees Island Architectural & Environmental Design Guidelines*. (Figure 13)

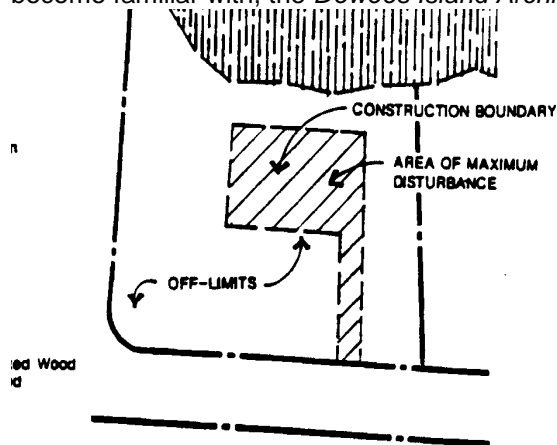


Figure 13: Construction, material and equipment storage must remain within the disturbance area unless alternative storage locations have been approved by the ARB.

B. Temporary Signage

If architects or contractors would like to post signs they must receive ARB approval. **No tree nailing is allowed.** Signs must be removed from the site at the completion of construction.

C. Architectural Resource Board Inspections

The A.R.B. administrator will conduct the initial site walk-through with the owner and contractor prior to start of construction work to document the condition of existing site features. Regular visits will be made by an A.R.B. representative to check compliance with environmental and architectural guidelines. The architect will be required to make regular site visits to check for compliance with the approved construction documents. Upon construction completion, a final inspection will occur. Following the final inspection and return of the Owner's Cash Deposit, no contractors are to be working on the site except to correct minor problems after the owner has moved in. If planting needs to occur after desired occupancy due to seasonal planting requirements, final acceptance of landscape work can be delayed, but must be granted prior to refund of Owner's Cash Deposit (Appendix 5, Site Inspections).

D. Charleston County Inspections

Charleston County provides a number of standard site inspections. For a schedule of these contact the East Cooper branch of the Charleston County Building Inspection Dept., 1189 Iron Bridge Drive Suite 400, Mt. Pleasant, S.C. 29464. (843-856-1214).

E. Architectural Revisions and Design Changes during Construction

Each owner or a representative must request approval from the A.R.B. of any proposed design changes prior to making the change. The architect will be required to conduct four construction process reviews to certify that construction is proceeding per the approved plans (Form 10, Construction Process Review). Major changes will require re-submittal and final review approval (Form 5, Application to Make Construction or Design Changes).

F. Owner's Cash Deposits

Addenda November '08

Each Owner shall provide to the ARB a cash deposit (the "Owner's Cash Deposit") specified in Appendix 4 for each approved construction project to guaranty the Owner and Owner's general contractor's compliance with these architectural and environmental design guidelines, including, but not limited to, landscape restoration, reclamation and mitigation as required by the ARB.

The Owner's Cash Deposit shall not be returned to Owner unless and until the Owner satisfies the following requirements prior to the expiration of thirty days after the date of issuance of a Dewees Island Certificate of Completion: (i) final acceptance by the ARB of the installation by Owner of the landscaping requirements imposed by the ARB, and (ii) the determination by the ARB that all of the requirements of these ARB Guidelines have been satisfied and the requirements of the fully completed Form 6 Application For Certificate of Completion have been completed.

If the Owner fails to satisfy the foregoing requirements within such 30-day period, the Owner acknowledges and agrees that the Owner shall be in default of his or her obligations under this section of the ARB Guidelines, and the Owner's Cash Deposit shall become the sole property of the ARB. The ARB may in its sole and absolute discretion use any or all of the Owner's Cash Deposit to discharge and satisfy the obligations of Owner under these ARB Guidelines, or to satisfy any fines or costs imposed as a result of the Owner or Owner's general contractor's failure to comply with these guidelines. In no event shall posting the Owner's Cash Deposit, or forfeiture of same to the ARB, relieve the Owner from fully complying with these guidelines.

The ARB shall have no liability or obligation for discharging the Owner's obligations under these guidelines; if the ARB provides work, or materials at the expense of the Owner for discharge of such obligations, the ARB shall have no liability to the Owner for the negligent or unsatisfactory performance of such work.

The Owner agrees that the ARB shall have such necessary rights of access to the Owner's property or lot for performance of any work which the ARB elects to perform pursuant to this section of the guidelines.

The ARB may adjust from time to time the amount of the Owner's Cash Deposit.

G. Salt Marshes, Wetlands / Dunes

No construction is to occur within 10 feet of freshwater wetlands or saltwater marsh areas. Construction within 50 feet of these areas will require protective measures. Encroachment in the dune fields is prohibited.

H. Contractor Regulations and Conduct (see Appendix 5)

1. Contractor is required to read the Construction Waste Management Plan, develop a waste management program specific to their construction situation, and review this program with the utility corporation staff. The Dewees Island Construction Waste Management Plan is available through the A.R.B.

2. ***Contractor must provide evidence of general liability insurance for his operations and all of his vehicles to be used on the Island for the duration of the project, Dewees Utility Corporation and the Dewees Island Property Owners Association shall be named as additional insured parties.***

3. ***Contractor must provide evidence of worker's compensation insurance.***

4. Contractor may not begin work until insurance, toilet, and cellular telephone are in place at construction site.

5. The contractor is fully responsible for the conduct of his employees and sub-contractors.

6. Workers are restricted to the job site.

7. Access to the Island is provided between 7:00 A.M.-6:00 P.M., MON-SAT only. All construction workers must leave by 6:30 P.M. No construction workers are allowed after 6:30 P.M. or on Sundays or holidays without prior approval of the A.R.B. Only emergency interior work will be considered.

8. No harassment of residents will be tolerated.

9. Shoes and shirts must be worn on job site, and on any Dewees Island property.

10. Toilet facilities must be provided by the contractor.

11. Contractors must be licensed in the state of South Carolina.

12. Loud music is prohibited.

13. No littering or defecation.

14. No hunting, fishing, crabbing, shrimping, trapping, within the legal boundaries or marshlands of Dewees Island.

15. Consumption of alcoholic beverages or drugs is strictly prohibited.

16. ***The A.R.B. has full authority, without notice, to remove violators from the Island and full authority to stop work.***

17. Contractor must provide emergency telephone service on site during the entire construction phase.

18. The contractor must post the ARB permit, Charleston County permit, and emergency procedures and phone numbers in a visible and accessible location on the job site.

I. General Construction Guidelines

1. A.R.B. approval is valid up to one (1) year, after which time, the approved documents will be subject to changes in the A.R.B. Guidelines, site conditions, and adjacent construction. If construction has not begun within one (1) year, a second Construction Documents Review and Review Fee will be required.

2. Island access is permitted with permission of a Dewees owner or builder, and after check-in on the ferry boat.

3. ***No site clearing without prior A.R.B. approval.*** Existing vegetation must be protected in unoccupied areas during construction.

4. Cleaning of equipment, oil changing, or other potentially environmentally hazardous activities shall take place only at the Wash-down/ Containment area at the Public Works compound, when provided.

5. ***The Contractor will be permitted to place one trailer, up to 45 feet long, on site for storage of equipment and materials.*** The site plan submitted to the A.R.B. must indicate trailer location.

6. The Contractor must use designated storage space for storage of excess materials and equipment.

7. ***Construction materials shall not be stockpiled within the drip line of large trees.***

8. ***The approved 7,500 sq. ft. disturbance area must be fenced for the duration of construction with sand fencing.***

9. ***Dune or sand fencing shall be erected at the drip line of trees.*** Contractors are not to encroach on this line.

10. ***Driveways are required to be completed prior to construction unless an alternative construction access has been approved by the A.R.B.***

11. ***Erosion control screens must be erected between the construction site and any wetlands or marsh located on the lot.***

12. Vehicles will be permitted only with A.R.B. approval, Dewees Island P.O.A. approval, and proof of insurance. ***A contractor is limited to one pick-up truck or standard van, unless on-Island shuttle service is provided at a fee.*** Other special purpose vehicles will be permitted on a short term basis.

13. No soil disturbance other than what is stipulated in the construction documents is allowed.

14. Shells, plants, driftwood, archaeological objects or relics are not to be removed from the Island. Archaeological objects must be turned in to the Landings Building.

15. A contractor must cease construction and notify the A.R.B. upon the discovery of any object of archaeological significance to the A.R.B.

16. The State of South Carolina requires that sediment and erosion control measures be utilized during construction using best management practices.

17. Any construction occurring on site without A.R.B. approval will result in suspension of work and denial of Island access to the contractor, contractor's employees and sub-contractors.

18. ***No toxic chemicals are allowed, where ecologically sound alternatives exist.*** Where no such alternatives exist, toxics should be minimized and handled so as to avoid waste or spillage. This includes those used in construction.

19. The property owner will be responsible for contractor's actions and any damages during construction, and will be notified of any violations.

20. Contractor must repair and fill all ruts, as these are mosquito breeding grounds.

21. Construction site waste materials are to be sorted on site into separate containers for recycling (wood, metals, plastics, fluids). The ease of non-toxic waste recycling is greater if separation is conducted on site.

22. The construction site must be cleaned up and left in a safe condition on a daily basis.

Violations of the foregoing regulations will result in fines. After reading the "Environmental Guidelines", each contractor, subcontractor and construction employee will sign an agreement stating that they have read and will abide by those regulations.

VIII. ARB FORMS TO ASSIST WITH SUBMITTALS AND REVIEWS

The following forms must be used to accompany any request for review submitted to the ARB.

**DEWEES ISLAND
ARCHITECTURAL RESOURCE BOARD**

FORM 1

APPLICATION FOR SKETCH DESIGN REVIEW

Please include two (2) sets of drawings as well as a digital copy

Lot Number _____

Date _____

Drive/Lane _____

GENERAL INFORMATION

Property Owner _____

Architect _____

Address _____

Address _____

Telephone _____

Telephone _____

Landscape Architect _____

Surveyor _____

Address _____

Address _____

Telephone _____

Telephone _____

MATERIALS AND SYSTEMS

Foundation _____

Windows _____

Exterior Walls _____

Roofing _____

Heating/Cooling _____

Insulation _____

ARCHITECTURAL RESOURCE BOARD

Date _____

Approved _____

Conditional Approval _____

Not Approved _____

Not Accepted for Review _____

**DEWEES ISLAND
ARCHITECTURAL RESOURCE BOARD**

Form 2

APPLICATION FOR PRELIMINARY DESIGN REVIEW

(Please include two (2) sets of drawings as well as a digital copy and samples/ colors of all exterior materials proposed)

Lot Number_____

Date_____

Drive/Lane_____

GENERAL INFORMATION

Property Owner_____

Architect_____

Address_____

Address_____

Telephone_____

Telephone_____

Landscape Architect_____

Surveyor_____

Address_____

Address_____

Telephone_____

Telephone_____

MATERIALS AND SYSTEMS

Foundation_____

Windows_____

Exterior Walls_____

Roofing_____

Heating/Cooling_____

Insulation_____

Total Heated Area_____

Total Permanent Disturbed Area_____

Additional Temporary/Construction Disturbed Area_____

ARCHITECTURAL RESOURCE BOARD

On-Site Inspection_____

Review Fee_____

Date_____

Approved_____

Conditional Approval_____

Not Approved_____

Not Accepted for Review_____

**DEWEES ISLAND
ARCHITECTURAL RESOURCE BOARD**

FORM 3

APPLICATION FOR CONSTRUCTION DOCUMENTS REVIEW

(Please include two (2) sets of drawings as well as a digital copy and samples)

Lot Number _____ Date _____

Drive/Lane _____

GENERAL INFORMATION

Property Owner _____ **Architect** _____

Address _____ Address _____

Telephone _____ Telephone _____

Landscape Architect _____ **Surveyor** _____

Address _____ Address _____

Telephone _____ Telephone _____

MATERIALS AND SYSTEMS

Foundation _____ Color _____ Windows _____ Color _____

Exterior Walls _____ Color _____ Roofing _____ Color _____

Exterior Doors _____ Color _____ Trim _____ Color _____

Shutters _____ Color _____ Exterior Rails _____ Color _____

Heating/Cooling _____ Insulation _____

Total Heated Area _____ Total Permanent Disturbed Area _____

Additional Temporary/Construction Disturbed Area _____

ARCHITECTURAL RESOURCE BOARD

On-Site Inspection _____ Review Fee _____

Date _____ Approved _____

Conditional Approval _____ Not Approved _____

Not Accepted for Review _____

**DEWEES ISLAND
ARCHITECTURAL RESOURCE BOARD**

FORM 4

APPLICATION FOR CONSTRUCTION PERMIT

(Please include three (3) sets of drawings to be stamped.)

Lot Number _____ Date _____

Drive/Lane _____

GENERAL INFORMATION

Owner _____ **Contractor** _____

Address _____ Address _____

Telephone _____ Telephone _____

Landscape Architect _____ **Architect** _____

Address _____ Address _____

Telephone _____ Telephone _____

Total Heated Area _____ Total Permanent Disturbed Area _____

Additional Temporary/Construction Disturbed Area _____

I hereby certify that this submittal is, and the proposed construction which it represents will be, in full compliance with the requirements as stated in the Dewees Island Architectural and Environmental Design Guidelines. Any misrepresentation by the contractor or his agents will result in removal from the island.

Owner(s) _____ Date _____

Architect(s) _____ Date _____

Contractor(s) _____ Date _____

ARCHITECTURAL RESOURCE BOARD

Contractor's Deposit _____ Owner's Deposit _____

Utility Fees _____

Date Issued _____

**DEWEES ISLAND
ARCHITECTURAL RESOURCE BOARD**

FORM 5

APPLICATION TO MAKE CONSTRUCTION OR DESIGN CHANGES

(Please include two (2) sets of drawings as well as a digital copy and samples)

Lot Number _____

Date _____

Drive/Lane _____

GENERAL INFORMATION

Property Owner _____

Architect _____

Address _____

Address _____

Telephone _____

Telephone _____

Landscape Architect _____

Surveyor _____

Address _____

Address _____

Telephone _____

Telephone _____

MATERIALS AND SYSTEMS

Foundation _____ Color _____

Windows _____ Color _____

Exterior Walls _____ Color _____

Roofing _____ Color _____

Exterior Doors _____ Color _____

Trim _____ Color _____

Shutters _____ Color _____

Exterior Rails _____ Color _____

Heating/Cooling _____

Insulation _____

Total Heated Area _____

Total Permanent Disturbed Area _____

Additional Temporary/Construction Disturbed Area _____

ARCHITECTURAL RESOURCE BOARD

On-Site Inspection _____

Review Fee _____

Date _____

Approved _____

Conditional Approval _____

Not Approved _____

Not Accepted for Review _____

**DEWEES ISLAND
ARCHITECTURAL RESOURCE BOARD**

FORM 6

APPLICATION FOR CERTIFICATE OF COMPLETION

Lot Number _____ Date _____

Drive/Lane _____

GENERAL INFORMATION

Owner _____ **Contractor** _____

Address _____ Address _____

Telephone _____ Telephone _____

Landscape Architect _____ **Architect** _____

Address _____ Address _____

Telephone _____ Telephone _____

Total Heated Area _____ Total Permanent Disturbed Area _____

ARCHITECTURAL RESOURCE BOARD

Date _____

Approved _____

Not Approved _____

REQUIREMENTS: (Subject to change)

- Any outdoor compressor or HVAC unit has been visually screened.
- Exterior materials and finishes have been completed as per the construction documents approved by the ARB.
- No flood or spot lights have been installed.
- Visible exterior water pipes, including sprinkler system pipes have been insulated to R-7 and protected from impact from golf carts, other equipment and people.
- Written certification from a licensed sprinkler system installer has been provided which indicates that the system has been installed in accordance with NFPA 13R or D.
- Written certification a central fire monitoring system is installed and activated in accordance with the ARB Guidelines as amended August 2006.
- Exposed ductwork has been insulated.
- A hurricane protection system for glazing is available at the house or temporary provisions have been made (for example: plywood panels for every window).
- Certificates of Compliance from Architect for 4 phases of review (Form 10).

**DEWEES ISLAND
ARCHITECTURAL RESOURCE BOARD**

FORM 7

APPLICATION FOR FINAL INSPECTION

Lot Number _____

Date _____

Drive/Lane _____

GENERAL INFORMATION

Property Owner _____

Contractor _____

Address _____

Address _____

Telephone _____

Telephone _____

Landscape Architect _____

Architect _____

Address _____

Address _____

Telephone _____

Telephone _____

Total Heated Area _____

Total Disturbed Area _____

ARCHITECTURAL RESOURCE BOARD

Site Inspection _____

Contractor's Deposit _____

Owner's Deposit _____

Fines _____

Fines _____

Balance Remaining _____

Balance Remaining _____

Amount to be Returned _____

Date _____

Approved _____

Not Approved _____

**DEWEES ISLAND
ARCHITECTURAL RESOURCE BOARD**

FORM 8

APPLICATION TO MAKE IMPROVEMENTS

(Please include two (2) sets of drawings as well as a digital copy)

Lot Number _____ Date _____

Drive/Lane _____

GENERAL INFORMATION

Property Owner _____ **Architect** _____

Address _____ Address _____

Telephone _____ Telephone _____

Landscape Architect _____ **Surveyor** _____

Address _____ Address _____

Telephone _____ Telephone _____

MATERIALS AND SYSTEMS

Foundation _____ Color _____ Windows _____ Color _____

Exterior Walls _____ Color _____ Roofing _____ Color _____

Exterior Doors _____ Color _____ Trim _____ Color _____

Shutters _____ Color _____ Exterior Rails _____ Color _____

Heating/Cooling _____ Insulation _____

Total Heated Area _____ Total Permanent Disturbed Area _____

Additional Temporary/Construction Disturbed Area _____

ARCHITECTURAL RESOURCE BOARD

On-Site Inspection _____ Review Fee _____

Date _____ Approved _____

Conditional Approval _____ Not Approved _____

Not Accepted for Review _____

**DEWEES ISLAND
ARCHITECTURAL RESOURCE BOARD**

FORM 9

EVALUATION OF PROJECT SUSTAINABILITY

- Efficient Resource Use, including Energy, Materials, and Water

Minimal Toxicity of Materials and Processes

- Preservation and Restoration of Natural Systems

- Quality of Community

- Economic Viability

**DEWEES ISLAND
ARCHITECTURAL RESOURCE BOARD**

FORM 10

CONSTRUCTION PROCESS REVIEW

~ Phase 1: Site Clearing	Date_____
~ Phase 2: Rough Framing	Date_____
~ Phase 3: Rough-in and Insulation*	Date_____
~ Phase 4: Substantial Completion	Date_____

* Prior to the Rough-in and Insulation review, the Contractor is to provide a copy of each of the following from a registered land surveyor:

- FEMA elevation certificate
- Overall height certificate taken to the highest point, excluding chimneys

The building construction, through the date above:

___ is in compliance with the Construction Documents approved by the Dewees Island ARB

___ is **not** in compliance with the Construction Documents approved by the Dewees Island ARB.
- attach Form #5 and a detailed explanation for changes made in the building layout, building height, site configuration, and for material substitutions.

All changes require review by the ARB Administrator. Any change is also subject to review by the Dewees Island ARB at its regularly scheduled meeting. If not in compliance, the work in Question must cease until corrected or ARB change is issued.

I hereby certify that I have performed this on-site construction phase review and that the information included herewith is accurate to the best of my professional knowledge and only insofar as allowed by site visits taken at intervals appropriate to the stage of construction to become generally familiar with the progress and quality of the Work completed, and to determine in general if the Work is being performed in a manner indicating that the Work when completed will be in accordance with the Contract Documents as provided in the Owner/Architect Agreement. Furthermore, this certification maintains that the Architect shall not have control over or charge of and shall not be responsible for the Contractor's schedules or failure to carry out the Work in accordance with the Contract Documents. The Architect shall not have control over or charge of acts or omissions of the Contractor, Subcontractors, or their agents or employees, or of any other persons performing portions of the Work. This certification does not hold the Architect in any way responsible for the work in place or any corrective measures required by the Dewees Island Architectural Resource Board. A copy of this review has been provided to the Owner and to the Contractor.

Architect_____

Date_____

**DEWEES ISLAND
ARCHITECTURAL RESOURCE BOARD**

FORM 11

DEWEES ISLAND DESIGN & CONSTRUCTION CHECKLIST

LOT # _____ OWNER(S) _____

Architect _____ Landscape Architect _____

Builder _____

SUBMITTALS

Submission Fee (\$22.50 per 100 sq. ft. heated area or \$500 minimum) _____ (ARB receipt date)

Sketch Design Submittal Date(s) _____ Sketch Design Approval Date _____

Preliminary Design Submittal Date(s) _____ Preliminary Design Approval Date _____

Final Design Submittal Date(s) _____ Final Design Approval Date _____

Owner's Deposit (\$10,000; submitted after final design approval and prior to issuance of building permit, Payment and Performance Guarantee acceptable to ARB) _____ (ARB receipt date)

R.O. Fee (\$4,100) _____ (ARB receipt date)

Utility & Water Connection and Installation Fees (\$20,000) _____ (ARB receipt date)

DHEC Sewer Escrow Fee \$500 _____ (ARB receipt date)

Signed Application for Construction Permit and 3 sets of plans _____ (ARB receipt date)

ARB Issuance of Dewees Island building permit _____ (ARB issue date)

ARB Issuance of Dewees Island Certificate of Completion _____ (date sent to Charleston County Building Department).

Final site inspection, and refund of security deposit balance to owner(s): 1) Construction deposit return _____ (date of issuance by ARB)

CERTIFICATIONS

Owner Required Certifications

Owner-Architect Agreement: Written verification that agreement is AIA B 141, 151 or equivalent and that agreement includes construction phase services. _____ (ARB receipt date)

Architect Required Certifications

Architect certification (licensed to practice architecture in the State of South Carolina) _____ (ARB receipt date)

Architects certification that they have read and reviewed the Dewees Island Architectural & Environmental Guidelines _____ (ARB receipt date)

Architects completed construction inspection forms:
Site Clearing _____ (ARB receipt date)

Rough Framing _____ (ARB receipt date)
Rough-in and Insulation _____ (ARB receipt date)
Substantial Completion _____ (ARB receipt date)

Builder Certifications

Builder's certification (licensed to do business in the State of South Carolina) _____ (ARB receipt date)

Builder's certification that they have secured, read, reviewed and will abide by the Dewees Island Architectural & Environmental Guidelines _____ (ARB receipt date)

Builder's certification of proof of general liability and workers compensation insurance (copy of insurance policy certificates) _____ (Policy expiration date)

Builder's certification of first floor elevation and maximum building height per approved construction drawings (submit as-built verification by registered SC surveyor) _____ (ARB receipt date)

Builder's certification that in accordance with State and Charleston County licensing requirements, all applicable trades used on the project are licensed, i.e. Electrical, Plumbing/Mechanical, gas(propane) and Fire Protection/Sprinklers. _____ (ARB receipt date).

Builder's final certification that project is constructed in substantial compliance with approved construction drawings, Dewees Island Environmental & Architectural Guidelines and applicable building codes (ARB certification form) _____ (ARB receipt date)

IX APPENDICES

APPENDIX 1: RECOMMENDED SPECIES FOR PLANTING AT DEWEES ISLAND

Plants included in the lists that follow are recommended for use in your landscape efforts. They are either native to Dewees, or will adapt well to Island conditions. When possible use native plants from these lists.

SCIENTIFIC NAME	COMMON NAME	EVG/DECID	COMMENTS	BLOOM
<u>Trees for Dewees Island:</u>				
<i>Acer rubrum</i>	Red Maple	Decid	Red fall color, wet areas	Feb-March
<i>Carya glabra</i>	Pignut Hickory	Decid	Dry or moist areas	
<i>Carpinus caroliniana</i>	Ironwood	Decid	Smooth bark, moist areas	
<i>Celtis laevigata</i>	Hackberry	Decid	Corky bark ridges	
<i>Magnolia grandiflora</i>	Southern Magnolia	Evg	Large fragrant white flowers	May-June
<i>Liriodendron tulipifera</i>	Tulip Poplar	Decid	Moist areas	
<i>Nyssa sylvatica</i>	Black Gum	Decid	Red fall color, moist or dry areas	
<i>Pinus elliottii</i>	Slash Pine	Evg	Low areas	
<i>Pinus palustris</i>	Longleaf Pine	Evg	Sandy areas	
<i>Pinus taeda</i>	Loblolly Pine	Evg	Throughout	
<i>Quercus coccinea</i>	Scarlet Oak	Decid	Dry areas	
<i>Quercus falcata</i>	Southern Red Oak	Decid	Dry areas	
<i>Quercus laurifolia</i>	Laurel Oak	Evg	Low or Sandy areas	
<i>Quercus phellos</i>	Willow Oak	Decid	Low areas	
<i>Quercus virginica</i>	Live Oak	Evg	Dry or wet areas	
<i>Sabal palmetto</i>	Cabbage Palmetto	Evg	Dry or wet areas	
<i>Taxodium distichum</i>	Bald Cypress	Decid	Freshwater wet areas	

Small Trees for Dewees Island:

<i>Aesculus pavia</i>	Red Buckeye	Decid	Red flowers, wet areas	Apr.-May
<i>Amelanchier canadensis</i>	Serviceberry	Decid	White flowers, red fruit	Mar.-Apr.
<i>Cercis canadensis</i>	Redbud	Decid	Lavender flowers, dry areas	Mar.-Apr.
<i>Chionanthus virginicus</i>	Fringe Tree	Decid	Off-white flowers	July-Sept.
<i>Cornus florida</i>	Dogwood	Decid	White flowers, p.shade, red fall	Mar.-Apr.
<i>Crataegus marshallii</i>	Hawthorn	Decid	White flowers, red fruit, wet areas	Apr.-May
<i>Crataegus uniflora</i>	Hawthorn	Decid	White flowers, red fruit, dry areas	Apr.-May
<i>Gordonia lasianthus</i>	Loblolly Bay	Evg	White flowers, wet areas	July-Sept.
<i>Hamamelis virginiana</i>	Witch-Hazel	Decid	Pale yellow flowers, dry areas	Oct.-Dec.
<i>Ilex opaca</i>	American Holly	Evg	Red berries	
<i>Ilex cassine</i>	Cassena Holly	Evg	Red berries, moist areas	
<i>Juniperus virginiana</i>	Red Cedar	Evg	Salt tolerant, dry or wet, blue fruit	
<i>Magnolia virginiana</i>	Sweetbay Magnolia	Semi-Evg	White flowers, moist areas	Apr.-July
<i>Malus angustifolia</i>	Crabapple	Decid	Pink flowers, throughout	Apr.-May
<i>Persea borbonia</i>	Red Bay	Evg	Used for cooking, moist areas	
<i>Prunus caroliniana</i>	Cherry Laurel	Evg	Cream flowers, throughout	Mar.-Apr.
<i>Sassafras albidum</i>	Sassafras	Decid	Red fall color, throughout	
<i>Sorbus arbutifolia</i>	Red Chokeberry	Decid	White flowers, red fruit, moist area	Mar.-May
<i>Symplocos tinctoria</i>	Horse Sugar	Semi-Evg	Cream flowers, sandy areas	Mar.-May
<i>Xanthoxylum clavaherculis</i>	Hercules Club	Decid	Thorns, Sandy areas	

Shrubs for Dewees Island:

<i>Baccharis halmifolia</i>	Salt Myrtle	Evg	Downy plumes, throughout	Sept.-Oct.
<i>Bumelia sp.</i>	Buckthorn	Decid	White flowers, dry areas	June-July
<i>Callicarpa americana</i>	Beauty-berry	Decid	Bright purple berries, pink flowers	June-July
<i>Cephalanthus occidentalis</i>	Button Bush	Decid	White flowers, wet areas	June-Aug.
<i>Clethra alnifolia</i>	Sweet Pepperbush	Decid	White flowers, fragrant, wet areas	Sept.-Oct.
<i>Cyrilla racemiflora</i>	Titi	Semi-Evg	White flowers, moist areas	May-July
<i>Hypericum hypericoides</i>	St. Andrews Cross	Semi-Evg	Yellow flowers, dry areas	May-Aug.
<i>Hypericum stans</i>	St. Peter's-Wort	Semi-Evg	Yellow flowers, dry areas	June-Oct.
<i>Ilex cassine</i>	Dahoon Holly	Evg	Red berries, wet areas	
<i>Ilex glabra</i>	Inkberry	Evg	Black berries, moist areas	
<i>Ilex verticillata</i>	Winterberry	Decid	Red berries, moist areas	

Ilex vomitoria	Yaupon Holly	Evg	Red berries, throughout	
Itea virginica	Virginia Sweetspire	Decid	White flowers, red fall color, moist	May-June
Leucothoe axillaris	Leucothoe	Evg	White flowers, moist areas	Mar.-May
Lyonia lucida	Fetter Bush	Evg	Pink flowers, moist areas	Apr.-June
Myrica cerifera	Wax Myrtle	Evg	Blue fruit , fragrant, throughout	
Osmanthus americana	Wild Olive	Evg	Cream, flowers, dry areas	Apr.-May
Rhododendron canadense	Wild Azalea	Decid	Pink flowers, wet-dry areas	Mar.-May
Rhododendron atlanticum	Dwarf Azalea	Decid	Pink flowers, moist-dry areas	Apr.-May
Rhus copallina	Winged Sumac	Decid	Red fall color, dry areas	
Rosa carolina	Wild Rose	Decid	Pink flowers, dry areas	May-June
Rosa palustris	Swamp Rose	Decid	Pink flowers, moist areas	May-July
Sabal minor	Shrub Palmetto	Evg	Moist areas	
Sambucus canadensis	Elderberry	Decid	White flowers, throughout	Apr.-July
Serenoa repens	Saw Palmetto	Evg	Low areas	
Vaccinium arboreum	Sparkleberry	Evg	Black berries, white flowers, dry	Apr.-June
Vaccinium corymbosum	Highbush Blueberry	Decid	Blue berries, white flowers, moist	Feb.-May
Viburnum dentatum		Decid	White flowers, moist areas	Apr.-May
Viburnum rufidulum	Blue Haw	Decid	White flowers, dry areas	Mar.-Apr.
Yucca aloifolia	Spanish Bayonet	Evg	White flowers, dry sandy areas	June-July
Yucca filamentosa	Bear Grass	Evg	White flowers, dry areas	Apr.-July

Flowering Perennials for Dewees Island:

ANNUAL/PERENNIAL

Asclepias tuberosa	Butterfly Weed	Perenn	Orange flowers, dry areas	May-Aug.
Baptisia alba	False Indigo	Perenn	White flowers	Apr.-Sept.
Baptisia tinctoria	False Indigo	Perenn	Yellow flowers	Apr.-Sept.
Bidens laevis	Beggar Ticks	Perenn	Yellow flowers, wet areas	Sept.-Nov.
Canna flaccida	Golden Canna	Perenn	Yellow flowers, wet areas	May-July
Chrysanthemum leucanthemum	Ox-eye Daisy	Perenn	White Daisy flowers	Apr.-July
Coreopsis angustifolia	Tickseed Coreopsis	Perenn	Yellow flowers, moist areas	Aug.-Oct.
Coreopsis falcata		Perenn	Yellow flowers, moist areas	May-July
Coreopsis helianthoides		Perenn	Yellow flowers, moist areas	Sept.-Oct.
Coreopsis lanceolata		Perenn	Yellow flowers, dry areas	Apr.-June
Coreopsis major		Perenn	Yellow flowers, dry areas	June-Aug.
Eupatorium coelestinum	Wild Ageratum	Perenn	Blue flowers, dry or moist	July-Oct
Erythrina herbacea	Coral Bean	Perenn	Red flowers, red seed	Apr.-July
Helianthus angustifolius	Swamp Sunflower	Perenn	Yellow flowers, wet	July-frost
Helianthus strumosus		Perenn	Yellow flowers	July-Sept.
Hibiscus moscheutos	Swamp Rose-mallow	Perenn	White-Pink flowers, wet areas	May-Sept.
Iris virginica	Blue Flag Iris	Perenn	Blue flowers, wetlands	Apr.-May
Kosteletzkya virginica	Seashore Marsh Mallow	Perenn	Pink flowers, wetlands	June-Oct.
Liatris graminifolia	Blazing Star	Perenn	Lavender flowers, dry areas	Sept.-Oct.
Liatris spicata	Blazing Star	Perenn	Lavender flowers, moist areas	Sept.-Oct.
Mitchella repens	Partridge Berry	Perenn	White flowers, p.shade	May-June
Monarda punctata	Horse Mint	Perenn	Pink flowers, dry	July-Sept.
Nuphar luteum	Yellow Pond Lily	Perenn	Yellow flowers, wetlands	Apr.-Oct.
Oenothera biennis	Evening Primrose	Perenn	Yellow flowers, dry	June- Oct.
Oenothera drummondii	Beach Evening Primrose	Perenn	Yellow flowers, dry	Mar.-Nov.
Oenothera humifusa	Dunes Ev. Primrose	Perenn	Yellow flowers, dry areas	May-frost
Oenothera speciosa	Evening Primrose	Perenn	Pink flowers, dry areas	Apr.-July
Opuntia compressa	Prickly Pear Cactus	Perenn	Yellow flowers, dry areas	Apr.-June
Phlox carolina		Perenn	Lavender, pink, or white flowers	May-July
Pontederia cordata	Pickerelweed	Perenn	Blue-purple flowers, wetlands	March-Oct
Rudbeckia fulgida	Black-eyed Susan	Perenn	Yellow flowers, spreading, moist	Aug.-Oct.
Rudbeckia hirta	Black-eyed Susan	Perenn	Yellow flowers, dry areas	May-July
Salvia coccinea	Scarlet Sage	Perenn	Red flowers	Feb.-Nov.
Salvia lyrata	Lyre-leaved Sage	Perenn	Blue flowers, dry areas	May-frost
Saururus cernuus	Lizard's Tail	Perenn	Off-white flowers, wetlands	Apr.-July
Solidago rugosa	Rough-lvd Goldenrod	Perenn	Yellow flowers, moist areas	Aug.-Nov.
Solidago sempervirens	Seaside Goldenrod	Perenn	Yellow flowers, moist or dry areas	Aug.-Nov.
Tradescantia virginiana	Spiderwort	Perenn	Blue flowers, moist or dry areas	April-July
Verbena scabra	Verbena	Perenn	Pink flowers, brackish margins	May-Oct.
Verbena canadensis	Pink Verbena	Perenn	Pink flower, low growing, dry areas	March-May

Grasses, etc., for Dewees Island:

Andropogon glomeratus	Bushy Broomsedge	Perenn	Large plumes, moist areas	Aug.-Oct.
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<i>Andropogon virginicus</i>	Broomsedge	Perenn	Gold fall color, throughout	Sept.-Oct.
<i>Arundinaria gigantea</i>	Cane	Perenn	Wet or dry, p. shade to shade	Apr.-July
<i>Calamagrostis cinnoides</i>	Reed Grass	Perenn	Wet areas	July-Oct.
<i>Dichromena latifolia</i>	Whitetop Sedge	Perenn	Wet-moist, white bracts	May-Sept.
<i>Muhlenbergia filipes</i>	Sweetgrass	Perenn	Pink plumes, dry-wet	Oct.-Nov.
<i>Panicum amarum</i>	Seaside Panicum	Perenn	Sand dune areas	Oct.
<i>Panicum virgatum</i>	Switch Grass	Perenn	Pink-purple plumes, wet areas	June-Oct.
<i>Setaria geniculata</i>	Foxtail Grass	Perenn	Graceful, dry areas	May-Oct.
<i>Setaria viridis</i>	Green Bristlegrass	Ann	Dry areas	July-Oct.
<i>Sorghastrum sp.</i>	Indian Grass	Perenn	Tall, graceful, dry areas	Sept.-Oct.
<i>Spartina patens</i>	Salt Hay	Perenn	Narrow blades, spreading, moist	June-Sept.
<i>Uniola paniculata</i>	Sea Oats	Perenn	Sand dune areas, oat-like seeds	June-Sept.

Vines for Dewees Island:

<i>Anisostichus capreolata</i>	Cross Vine	Semi-Evg	Red/Orange flowers	Apr.-May
<i>Apios americana</i>		Herb.	Purple flowers, moist areas	June-Aug.
<i>Campsis radicans</i>	Trumpet Vine	Decid	Orange flowers	June-July
<i>Clematis crispa</i>	Leather Flower	Herb	Moist areas, white flowers	April-Aug.
<i>Clematis reticulata</i>		Herb	Dry areas, white flowers	May-Aug.
<i>Gelsemium sempervirens</i>	Yellow Jessamine	Evg	Yellow flowers	March-May
<i>Lonicera sempervirens</i>	Coral Honeysuckle	Evg	Red Flowers/ Red Fruit	March-July
<i>Parthenocissus quinquefolia</i>	Virginia Creeper	Decid	Red fall color	
<i>Passiflora incarnata</i>	Passion Flower	Decid	Lavender flowers	May-July

Ferns for Dewees Island:

<i>Adiantum capillus-veneris</i>	Venus' Hair Fern	Decid	Shady calcareous slopes
<i>Athyrium asplenoides</i>	Southern Lady Fern	Decid	Shade, moist
<i>Dryopteris ludoviciana</i>	Southern Shield Fern	Decid	Moist areas
<i>Osmunda cinnamomea</i>	Cinnamon Fern	Decid	Moist areas
<i>Osmunda regalis</i>	Royal Fern	Decid	Moist areas
<i>Polystichum acrostichoides</i>	Christmas Fern	Evg	Shade, moist

APPENDIX 2: CONSIDERATIONS FOR ENVIRONMENTALLY SENSITIVE DESIGN

Introduction:

As discussed earlier in this document, much of the architectural vernacular of lowcountry houses evolved out of responding to climate and environment. Many of the stylistic conventions we associate with lowcountry architecture were responses to the environment as a means to improve health, and provide comfort. Dewees Island offers the perfect opportunity to integrate these traditional lowcountry forms with modern understanding and technology. Designing your home with the environment as both form giver and beneficiary will enhance your enjoyment of Dewees Island and will help preserve its fragile ecosystems.

Species of wildlife that nest and inhabit the Island take what they need from the environment. They are an integral part of the ecosystem and keep it in balance. As you plan your home on Dewees, consider the homes of the other species which already exist. What you take from the environment should only be what your existence requires, making your impact as negligible on the natural habitat as possible.

The goal of this appendix is to introduce the many ways in which your home can become more energy efficient, more comfortable, and provide reduced environmental impact.

Energy Efficient Construction:

The quality of design and appearance sought by the Design Guidelines shall apply not only to proposed homes, and homes under construction, but to the maintenance of completed homes as well. Homes built before the implementation of the Dewees Island Master Plan will not have to upgrade to meet the requirements of these Guidelines, but any new work, renovations, or landscape work will require compliance.

Site Orientation:

Careful site planning reduces residential energy costs. When locating an energy-efficient home these criteria should be addressed: blocking winter winds and summer sun; maximizing winter sun and summer breezes. The orientation of your home on the site is the critical factor by which to achieve these goals. For hot, humid, regions like Dewees Island, minimizing solar heat gain and maximizing cooling breezes should be a priority.

Environmental Factors for Proper Site Orientation:

Orient active indoor and outdoor living areas to the south with properly designed roof overhangs. South facing spaces allow maximum winter sun penetration into a room and are generally considered more pleasing spaces. - Prevailing summer breezes should cross over the long side of the house. - Solar heat gain is greatest from westerly sun. To reduce this you can reduce the length of the exposed side, use shading materials, and reduce glazing on the west side.

Passive Ventilation and Cooling:

Passive ventilation is a means of ventilation that has reduced dependency upon mechanical systems such as fans or air conditioning. The primary function of natural ventilation is to prevent heat build-up inside the building and to provide air movement. Moving air makes warm temperatures seem cooler by quickly removing heat from our bodies. By utilizing passive ventilation we are able to start air conditioning later in the summer and halt air-conditioning earlier, relying only on good design and natural breezes for cooling. Not only does this reduce the dependency on energy intensive air-conditioning, but it also gives one a sense of closeness to the place we inhabit.

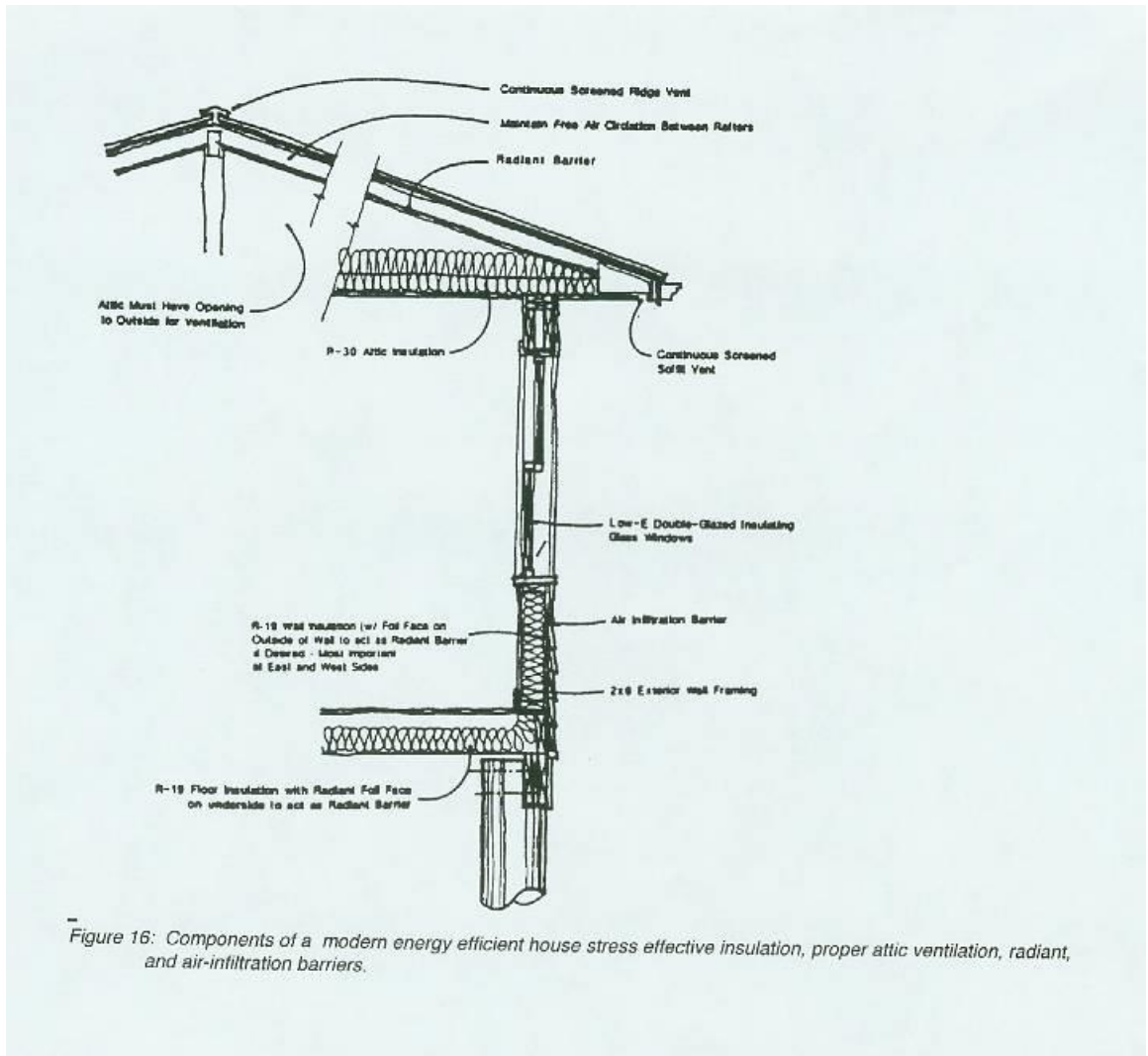


Figure 16: Components of a modern energy efficient house stress effective insulation, proper attic ventilation, radiant, and air-infiltration barriers.

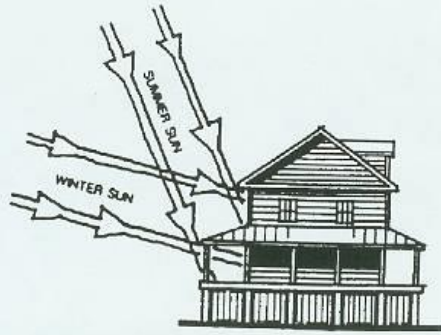


Figure 17: Porches and eaves protect the home from hot summer sun.

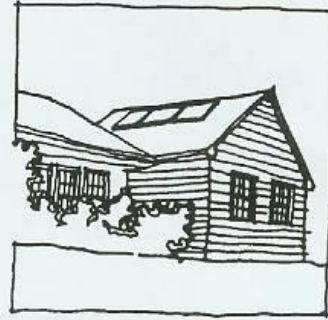


Figure 18: Solar water heaters need not be an eyesore as many modern units look like skylights.

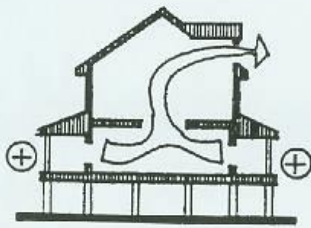


Figure 19: The Stack Effect is created by rising currents of warm air.



Figure 20: Orienting your home with prevailing breezes compliments the stack effect. The principle of "in low, out high" should be observed.

Wind:

If properly directed, natural air movement will enhance ventilation and provide convective and evaporative cooling. By manipulating the orientation and design of the home, breezes can be directed through interior spaces.

Air Circulation Fans:

Ceiling fans provide a cost effective means for saving cooling energy. The fundamental reason for ceiling fan installation is to increase air movement which in turn increases human cooling, allowing a higher thermostat setting. The higher the thermostat setting the lower your air conditioning costs. Ceiling fans also help eliminate any hot zones by distributing the air through a room, preventing wasteful stratification during the heating season.

Whole House Fans:

Whole-house fans, also commonly referred to as attic fans, help ventilate the home when there are no breezes or when windows may not provide enough ventilation. Whole-house fans bring air in through open windows and vent the air through the attic (larger attic vents are required).

Design for Cooling and Ventilation:

Incorporate design features that allow ventilation and cooling: power attic ventilators remove hot air from an attic while consuming small amounts of electricity; windows on two sides of a room promote cross-ventilation; transoms over doors allow air circulation while doors are closed; high ceilings of ten feet or more are a traditional method of separating hot from cooler air.

Generally considered to create cooler spaces, high ceilings provide a real benefit only if the hot air is vented out of the house with a whole-house fan or some other method. High ceilings also make for a

larger volume of air that will need conditioning, thus reducing energy efficiency. High ceilings are recommended despite these concerns, as the aesthetic benefits are undeniable, and the possibility of improved cooling exists if the home is properly designed.

Shading:

Blocking the sun's heat before it hits the building is the best way to reduce solar heat gains. Roofs should be of a light color to reflect heat. West walls are targets for intense heat absorption. These should be shaded by planting or other means, and have reduced glazing area. Roof overhangs at south and west walls should be deep enough to prevent the sun from entering a room during the summer months. The lowcountry wrap-around porch is ideal for this purpose.

Daylighting:

Residential daylighting opportunities are unlimited. Windows and skylights, the two most obvious methods are the most appropriate for Dewees Island homes. Skylights and roof windows should be relatively small or carefully oriented, to prevent solar heat gain, and have efficient ceiling baffling. Windows should be intelligently located with overhangs where solar heat gain is a problem. Clerestory windows can provide a lot of good quality light in a two-story space.

Photovoltaic Power:

Solar Photovoltaics (PV) - the direct conversion of sunlight to electricity - offers the promise of pollution-free power generation without using fuel. The scientific principle, which was first discovered in 1839, is simple: when sunlight strikes a solar electric module, the energy excites electrons to move across a neutral barrier, producing an electric current. The primary obstacle to the widespread use of this technology has been the cost of manufacturing the PV modules, a labor intensive process. However, the recent scientific advances coupled with the prospects for economies of mass production will very likely lead to significant cost reductions within the next few years. In many respects, Dewees Island provides an excellent opportunity for using photovoltaic electricity. The panels produce the greatest amount of power in the summer, when the most sun is available and when the greatest demands occur. Although, at this time~ the PV system will only produce a portion of the power needed for most residential application, the technology of PV will continue to be developed and over the next few years, be capable of supplying most of your household needs.

Solar Water Heating:

Solar water heating is a good way to make significant reductions in your electricity use. Solar equipment entails higher initial costs, but long term reductions in electricity consumption makes solar water heating cost effective. The systems of today are proven and efficient. Passive solar water heating systems are a logical choice for the Dewees Island region. They are simple, require no additional electricity to the power systems, and can be used year-round. More sophisticated active solar water heaters should be considered when the house will be vacant for long periods of time, as these are easily turned on and off.

Criteria for Selecting a Solar Water Heater:

- Climate - Dewees Island is ideal.
- Hot water demand.
- Intermittent use is not ideal for either passive solar or active solar water heating systems - an important consideration for vacation homes.
- What is the solar orientation of your home and what are the available mounting locations for equipment?

Water Conservation:

Reading your meter, looking for leaks, and switching to ultra-low-flow plumbing fixtures are techniques which will conserve water. Investing in a laundry grey-water system, such as the "Oasis", will also aid in conserving water. Only water-conserving plumbing fixtures are to be used on Dewees Island. The E.P.A. recommends low-flow toilets such as the "Preserver" by Eljer, or the "New Cadet Aquameter"

series by American Standard. Existing toilets can be retrofitted into low flow units. Sinks, showers, and other plumbing equipment must also be water conserving. Water conservation will prevent overtaxing of the water supply, the sewage system and home filtration units.

FEMA (Federal Emergency Management Agency):

FEMA, the Federal Emergency Management Agency, administers the National Flood Insurance Program (NFIP) that was initiated by Congress in 1968 to provide flood hazard mitigation through reducing the amount of property exposed to damage during flooding. NFIP is based on the principles of requiring communities to regulate new construction and development along their guidelines and to make flood insurance available to property owners. Dewees Island is located in a V-Zone (velocity zone) which is a portion of the coastal 100 year flood plain. Being located in this type of coastal zone requires the adherence to certain construction guidelines. One of the most substantial requirements is the elevation above sea level at which a building must be constructed to avoid tidal surges. The elevation designations represent Base Flood Elevations (BFE) which is the minimum height above sea level that a horizontal structural element may be located. The Base Flood Elevation Map indicates FEMA elevation areas for the island. Charleston County now requires an additional 2' minimum height. Locating your property on the map will provide you with the BFE for your structure. Charleston County administers the regulations for flood hazard areas. Additional requirements of the regulations include: the need for the area below BFE to be open (with the exception of the foundation and supporting structure) or constructed with breakaway walls or open lattice work intended to collapse under wind and water loads without damage to the foundation; that fill not be used for structural support; and that dunes and tree groves not be altered. Your Architect should be familiar with these regulations. If there are any questions, you may contact FEMA or the Charleston County Building Permit Office for information.

Rainwater Collecting Cisterns:

Each homeowner may want to consider rainwater collection cisterns under their house. Cisterns are essentially tanks that collect rainwater via the gutters and downspouts from the roof. The principle reason for collecting rainwater is to reduce the use of the deep island well water that constitutes the majority of the water used on the Island. Cisterns are a no-impact way to use nature as a resource provider. The cistern itself is an enclosed above ground tank of ceramic, fiberglass, or stainless steel that should be located directly under the home. Some cisterns may provide a decorative design feature while some may require screening from view. There are a variety of types and features, and the approach you take should consider the total home design. Collected rainwater can be used for irrigating planted areas or for washing decks, golf carts, outdoor furniture, etc. Cisterns are required for those homeowners who will be irrigating planted areas beyond the initial maintenance period.

Backyard Wildlife Program:

During the preliminary site design stages, homeowners should inquire about the National Wildlife Federation's, Backyard Wildlife Program. Inquiries can be made with the Environmental Program Director on Dewees Island, or at the following address:

National Wildlife Federation
1400 16th Street, N.W.
Washington, D.C. 20036-2266
202-797-6800

APPENDIX 3: UTILITIES

Electricity:

Electric power to the Island is supplied by S.C. Electric & Gas Company.

Water:

Island water is currently supplied by two wells. Because of the presence of dissolved solids in the water, a reverse-osmosis (R.O.) purification system is in place for the island. R.O. equipment will be inspected regularly and receive periodic bacteriological analysis by a state-approved laboratory. Homeowners will not be allowed to have individual wells of any sort.

Once the homeowner has paid the applicable fees (see Appendix 4) the Dewees Utility Corporation will purchase and install the water meter and “tap” the main water line. **The homeowner’s plumber is responsible for the water line from the meter (in the R.O.W.) to the house.** However, as a service and for a separate fee, the Dewees Utility Contractor will run the water line from the meter to the house, at which point the plumber would make the tie-in connection.

Sanitary Sewer:

Addenda November ‘08

Wastewater disposal on the island is through pressurized transmission mains fed from homes to an Orenco Centralized Wastewater Treatment Plant consisting of six 20,000 gallon septic tanks, one 30,000 gallon recirculation tank and six textile filter pods. After treatment through the plant the wastewater is pumped to an ultraviolet disinfectant system and on to a single dedicated disposal field.

Once the Owner has paid the applicable Utility fees pursuant to Appendix 4, the DUC will do the following work: the DUC will obtain and install a low-pressure submersible grinder pump placed within a high density plastic pumping station. The effluent will be pumped into the main distribution line located in the right-of-way of the road on which such lot fronts. The DUC will also install the line from the pumping station to the main distribution line and furnish, install and wire the grinder pump and alarm to the control panel. The Owner is responsible for contracting with a licensed plumber to hook up the sewer line from the dwelling to the stub-in at the pump station. The Owner is responsible for contracting with a licensed electrician which will be responsible for running the electrical and telephone wires to the control box (furnished and installed by the DUC) and establishing the connection once power is available in the dwelling.

Solid Waste Disposal:

The goal for Dewees Island is to have zero waste production. Solid waste shall be separated into three groups: compostable, recyclable, and non-recyclable materials. Recyclable materials include glass, cans (tin and aluminum), plastic bottles, and various paper products. Homeowners should provide for separation of these materials in their home designs.

Propane:

The Owner will furnish and have installed an underground propane tank of a maximum size of 500gal.

Underground propane tanks must be anchored and will only be allowed on a permitted basis by the Utility Co. Underground LP - Gas systems must be designed and installed in accordance with the provisions of NFPA 58 *Standard for the Storage and Handling of Liquefied Petroleum Gases*, NFPA 54 *National Fuel Gas Code* and all applicable state, provincial, and local codes covering these installations.

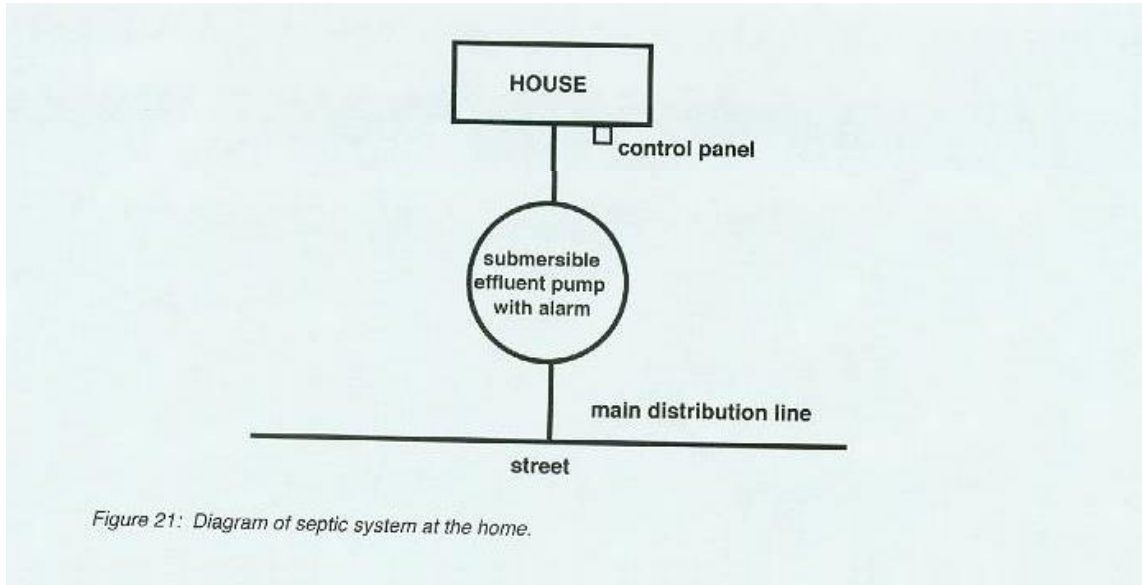


Figure 21: Diagram of septic system at the home.

Storm Water Management:

Drainage of storm water occurs via drainage swales and culverts that divert water into the impoundment, the marsh. Swales are located at each side of the R.O.W. and at side property lines of various lots along Pelican Flight Drive. These swales must be maintained and should only be crossed for driveway access. Natural water flow on lots is afforded by the current topography. Therefore, no alteration to the natural contours is to be made.

Telephone:

Service to Island is by AT&T.

Television:

Homeowners are permitted to install an 18" satellite dish in a discrete location on their home.

Note: All utility lines will be available underground in R.O.W. at the front of each property.

APPENDIX 4: REVIEW FEE SCHEDULE

Addenda November '08

Single Family Residence

New Residence

\$22.50 per 100 square feet (heated & roofed area) or \$500 minimum, whichever is greater.

Additions or Major Alterations

\$22.50 per 100 square feet (heated & roofed area) or \$250 minimum, whichever is greater.

Other Additions

Grade level enclosures and alterations	\$150
Pools or Spas	\$200
Beach Walkways	\$100
Gazebos	\$100
Decks or Porches	\$100

For minor alterations to an existing structure that do not change the footprint the fee will be determined by the Administrator at the time of submittal (minimum of \$75).

Repainting/ Restaining or Replacing Roofing

Use of the same exterior colors is generally encouraged. Any changes in exterior colors or materials must be presented to the Architectural Resource Board for approval before any work is undertaken. No fee is charged for this review.

Owner's Cash Deposit shall be in the amount of \$10,000.00

- Due at time of application for building permit
- Make payable to Dewees Island Architectural Resource Board

Utility Fees*

• Contractor Utility Water/Sewer connection fee **\$20,000.00**
Made payable to Dewees Utility Corporation. Due prior to and as a condition to issuance of Dewees building permit. This fee is inclusive of the charge by the DUC for running the water line from the water meter to the house, but the Owner's plumber is responsible for making the tie-in connection to the house.

DHEC Sewer Escrow Fee

- Owner Cost

Subtotal due at time of application for building permit

\$500.00

\$24,600.00

Owners are responsible for all ferry fees for all ferry riders related to construction. See current Dewees Island Ferry Fee Policy.* Policy may be subject to change.

APPENDIX 5: SITE INSPECTIONS

Regular Site Inspections

Regular site inspections of all construction sites will be made by the Architectural Resource Board. Compliance with the guidelines and the approved construction plans will be inspected periodically at each site.

Special Site Inspection

A special inspection of a specific site will be made upon receipt of a written complaint regarding specific violations.

Violations

Violations which are discovered will be photographed and described in a written report.

Fines

Once a notice has been sent to the contractor, all future violations of the Guidelines, and all unauthorized changes to the approved construction plans will be photographed, described in a written report, and a fine levied against the Contractor's Deposit. Should the deposit be depleted, construction will be stopped until a new deposit is posted. A copy of the violation report will be sent to the contractor, owner and architect.

Any violation of regulations in the Construction Waste Management Plan or the Dewees Island Guidelines which occurs within the approved disturbance area will be fined \$50.00 the first time the given violation occurs and will double each consecutive time the violation reoccurs. Additional violations and corresponding fines are listed below.

Parking on road right-of-way	100.00
Contractor/Subcontractor misconduct (general contractor responsible)	100.00
Damage to right-of-way or any community grounds or facilities	100.00
Damage or trespass on adjacent property	500.00
Damage to natural areas outside approved disturbance area	250.00
Burning debris on site	500.00
Unauthorized plan change (minor)	200.00
Unauthorized plan change (major)	500.00
Building without a permit	500.00
Unauthorized finishes (paint, stain, siding, trim, roofing)	Amount of Initial Deposit, and Owner to Remedy as Approved by the A.R.B.

- ARB will assess fines on a case by case basis and may pursue legal action if necessary in accordance with the POA bylaws and covenants

- The amounts of the fines are subject to periodic increases at the sole discretion of the ARB

Repeat Violations

Violations which are not corrected within one week, or by the following routine inspection, will be again photographed, written up and a new fine will be posted.

Appeals

Appeals of the fines must be made in writing to the full Architectural Resource Board, subject to the same schedule as submittals.

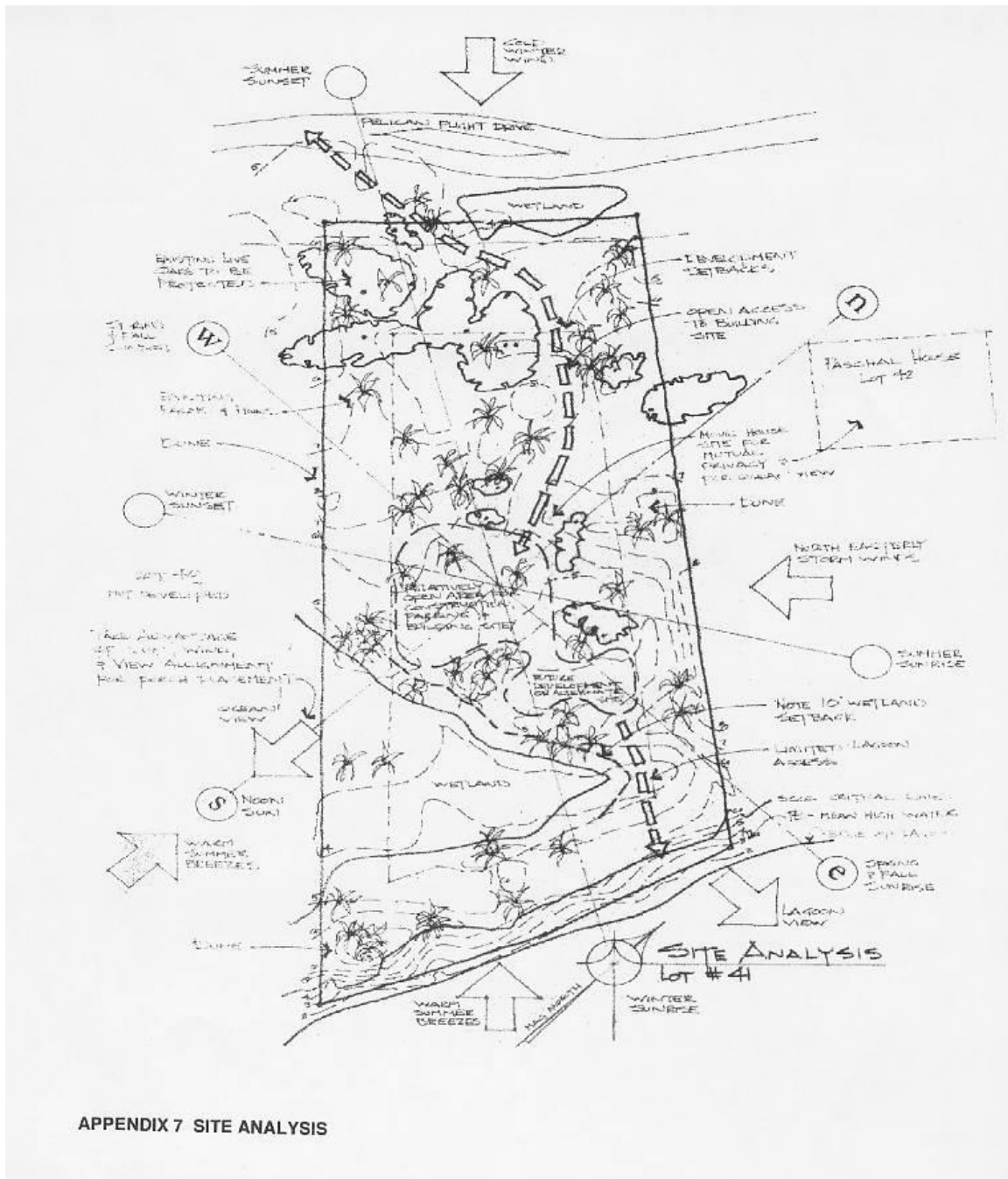
APPENDIX 6: STANDARDS FOR RECLAMATION OF AREAS TEMPORARILY DISTURBED DURING CONSTRUCTION

Temporary disturbance areas are areas which are disturbed during construction but which do not require continued maintenance. (This would **not** include areas such as utility areas, driveways, walkways, or landscaped areas.) Examples of temporarily disturbed areas would be construction storage areas or construction access roads which are not to become permanent roads or landscaped areas. These areas must be reclaimed following this temporary disturbance in order to minimize impact both visually and biologically.

All areas which have had heavy traffic or heavy material stored on them will suffer from compacted soil and must have the soil loosened to a depth of 4-6 inches. This will speed the process of natural succession of vegetation which will help to restore the area. In many cases seeding these areas will not be necessary since surrounding areas will supply appropriate seed naturally. However, the Dewees Island wildflower seed mix may be an attractive option to some homeowners.

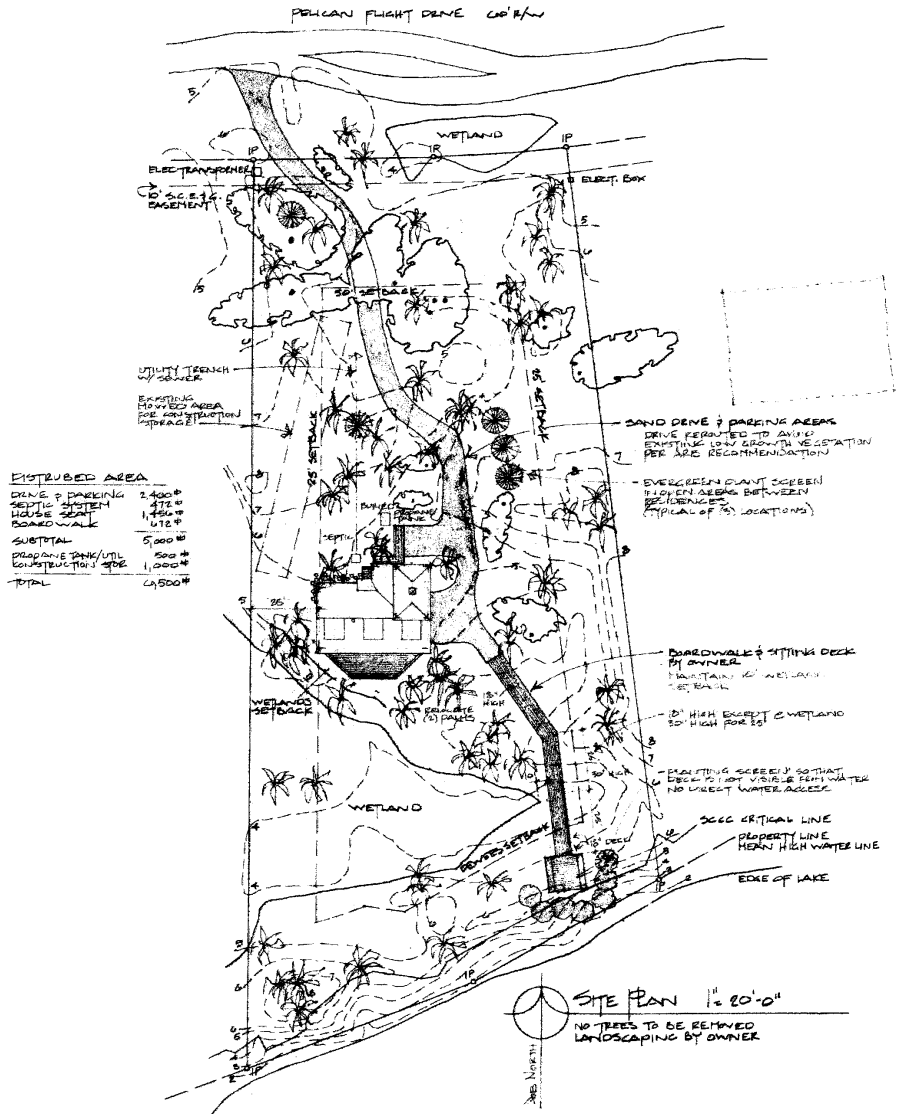
Some areas may require shrub plantings to provide immediate results where construction has left straight-line cuts through the landscape. These plantings are needed for buffering and to soften the otherwise unnaturally straight disturbances.

Any debris, temporary fill, or materials used to cross low areas must be removed from all temporarily disturbed areas.



APPENDIX 7 SITE ANALYSIS

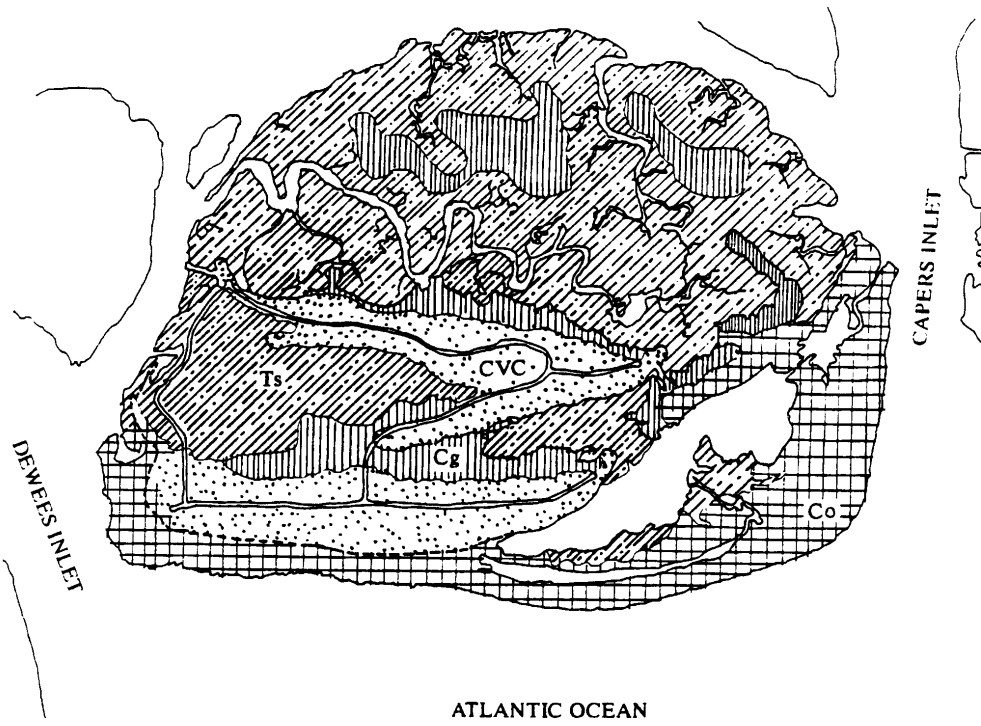
APPENDIX 7: SITE ANALYSIS







APPENDIX 8 SITE PLAN

APPENDIX 8: SITE PLAN

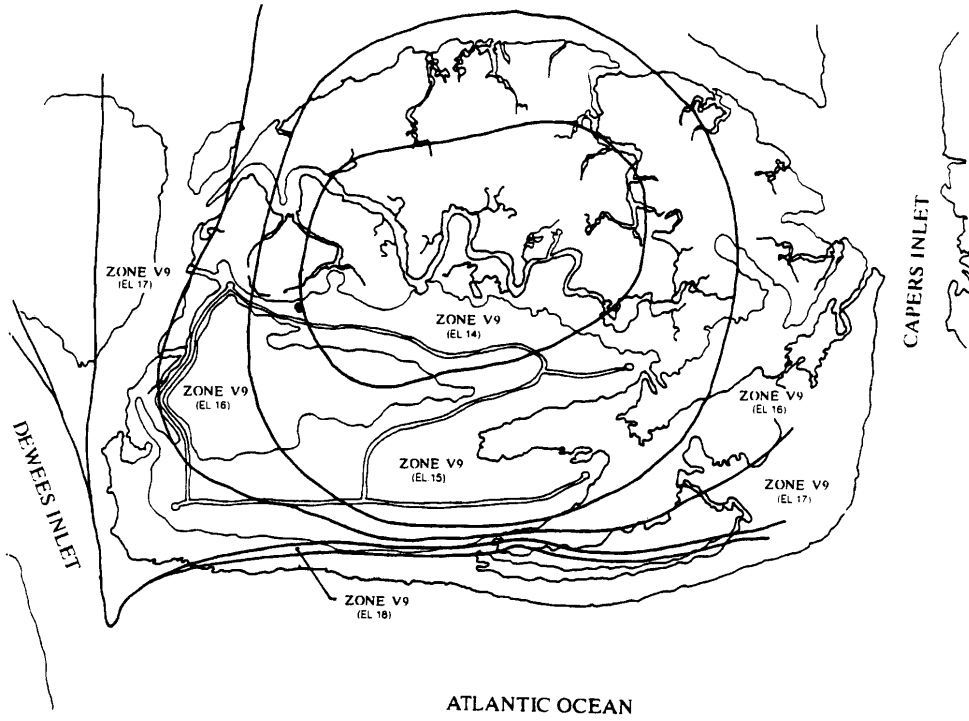
APPENDIX 9: DEWEES ISLAND SOILS MAP



Soils Legend

	Ts - Tidal Marsh, Soft
	Co - Coastal Beach & Dune
	Cg - Caper's Silty Clay Loam
	CVC Grevasse - Dawhoo Complex Rolling

APPENDIX 10: DEWEES ISLAND FEMA BASE FLOOD ELEVATION MAP



APPENDIX 11: VEGETATION MANAGEMENT PLAN

* *Addenda October '00*

DEWEES ISLAND VEGETATION MANAGEMENT PLAN

I. WHY DO WE MANAGE THE VEGETATIVE HABITAT ON DEWEES ISLAND?

A. OUR LEGAL OBLIGATION

The Dewees Island Architectural and Environmental Design Guidelines state that "natural vegetative habitat including trees, shrubs, grasses and wildflowers must be preserved", and the conservation easement with the state of South Carolina states that "no trees, shrubs or other vegetation of environmental significance shall be removed except in conformance with the comprehensive development plan."

B. OUR PHILOSOPHICAL COMMITMENT

Any vegetation management on Dewees must consider a number of factors including: human esthetic needs, wildlife needs, and environmental quality needs. It is important to maintain the integrity of the Island's natural areas to:

- maintain vegetative diversity
- provide wildlife habitat
- maintain connecting natural corridors for wildlife movement
- improve water and air quality
- provide visual buffering between homes
- provide protection from storm winds, waves, and salt spray.

II. HOW CAN WE, HUMANS, MAKE SOUND CUTTING AND PRUNING DECISIONS AS WE TRY TO ENHANCE OUR VIEWS AND PROTECT THE COMFORT AND SAFETY OF OUR HOMES?

A. FIRST, REMEMBER TO CONSULT THE ENVIRONMENTAL PROGRAM DIRECTOR PRIOR TO PRUNING. Remember that there may be less management labor in the long run when you work with natural processes of succession and growth like those described below. By allowing for a thick overstory of trees, undergrowth is naturally shaded out so that a clearer ground level for walking develops. Removing too many trees or shrubs from a site will encourage the growth of more trees, shrubs, and brambles, thus requiring more frequent cutting, and the cycle continues. The type of pruning done should depend on the growth and character of the vegetation being pruned, and the desired result.

B. NEXT, FAMILIARIZE YOURSELF WITH THE VEGETATIVE MANAGEMENT PHILOSOPHY OF THE ISLAND WITH EXAMPLES DESCRIBED BELOW:

Please see Appendix: 14 for information on PINE TREES, OAKS, and WAX MYRTLES.

POPCORN OR CHINESE TALLOW TREES are an invasive exotic. Popcorn trees are fast growing, short lived, deciduous trees which can dewater wetlands and crowd out native vegetation thereby reducing biodiversity. They are, therefore, not desirable and their removal is strongly encouraged.

NON-NATIVE (EXOTIC) VEGETATION can out compete native vegetation, reduce biodiversity and can alter the composition of natural areas. Non-native plants can escape from cultivation and become invasive in natural areas. Non-native vegetation such as vegetable plants and herbs may be planted in containers. Non-native vegetation is not permitted as in ground landscaping. Invasive exotic plants are not permitted in containers or as landscaping.

DEAD TREES AND LIMBS provide crucial habitat for many species of wildlife. Birds and other animals depend on the insects in these trees for food. These dead trees also provide nesting cavities as well as perching sites for many birds. Thus, dead trees should not be removed unless they endanger the safety of people or property. Dead limbs on live trees may, however, be removed to improve the health and appearance of the tree.

MAINTAINING DRIVEWAYS AND THE NEED FOR MOWING. Certain areas on lots do require some regular cutting of herbaceous vegetation to maintain access. For example, driveways must be kept free of encroaching vegetation to allow egress. This mowing should not need to be done more than twice a year. Such mowing will maintain an open area but allow for the growth of wildflowers and grasses along the edges which provide other important wildlife habitat. Mowing should be limited to areas such as roadways, paths, or utility areas.

WETLAND AND FOREST BORDERS. Many lots on Dewees border some type of wetland: freshwater wetlands, saltwater wetlands, brackish wetlands, ponds, lakes, or managed wetlands (impoundment.) These wetland areas are important wildlife habitat and esthetically attractive viewing areas. While it may seem desirable to maintain clear views of them, it is actually quite important that some form of vegetative buffer be maintained there. These areas provide crucial habitat and filter water runoff. Because they are vegetatively diverse, these borders also support varied wildlife species. Many of these species are insect eaters which help reduce mosquito populations. Alligators, which are enjoyable to watch from a distance, are less likely to spend time close to a shore with dense shrub growth.

Forest edges occurring next to wetlands are also important areas for maintaining water quality in the wetland areas and in the ground water aquifers which they eventually replenish. Water, which flows from the upland areas to the wetlands is filtered through the vegetation and roots of vegetation at the wetland's edge. Shrubs can be pruned to allow views or walking paths to the edge, but vegetation should not be removed which would leave large openings in the buffer and destroy habitat while creating channels for unfiltered runoff.

PRUNING OR REMOVING TREES TO MINIMIZE WIND DAMAGE. One of the more common concerns expressed by home owners about the trees around their homes is the fear that a hurricane might cause a nearby pine tree to damage their home. Trees can provide protection for homes as well as be a hazard. Yet, in reality, any tree can lose branches which can become projectiles in a fierce storm. Pine limbs are most often the weakest and would be more likely to break free than other tree limbs. However, if a home is properly protected with some form of hurricane shutters or panels (as all homes on Dewees must be) these branches should cause little serious damage.

The real concern with pines should be with those which are as tall or taller than the home, and are near enough to actually fall on it. If a tree poses a potential danger, the Land Ecologist will evaluate the tree for removal or severe pruning. Tall pines within 20 ft. of a home will be considered for removal or top pruning to slow vertical growth. The need for top pruning to mitigate the threat of wind damage will have to be weighed against any loss of views due to the resulting thicker growth.

It is, of course, impossible to predict the direction and effect of hurricane force winds, waves, and storm surges on trees. The best protection for your home is to build it to code or above.

APPENDIX 12: DEWEES ISLAND TREE PRESERVATION POLICY

* *Addenda May '02*

Dewees Island Tree Preservation Policy

The protection of trees on Dewees Island is integral to the philosophy of the entire community, one aspect of which is to harmoniously integrate the built and the natural environment. The importance of protecting the natural landscapes of Dewees is evident in the frequent mention of this in the POA Covenants and By Laws, The Dewees Island Architectural and Environmental Design Guidelines, and the Dewees Island Conservation Agreement. Trees are valuable assets for many reasons including their roles in erosion control, temperature control, air quality, storm/wind control, reducing impacts on neighbors and community, and as wildlife habitat.

Trees create a layer of organic matter on the soil surface composed of leaf litter and roots which increases soil permeability and groundwater recharge, reduces wind erosion of soil, reduces surface water runoff and soil erosion and sedimentation of wetlands. Trees control air temperature through shading and evaporation. This shading can also cool nearby homes, thus reducing energy use for air-conditioning by 20-50%. Trees also provide a windbreak from winter winds, thus reducing energy use for heating 20-50%. The removal of trees causes an elevation in air temperature and dryness of air and soil due to increased wind. Trees improve air quality by producing oxygen, and removing carbon dioxide and dangerous gases. Research has shown that trees can provide hurricane protection by obstructing wind, filtering wind, and deflecting wind. A combination of healthy trees and shrubs forms the best buffer against storm winds and damaging debris carried by storm surges. Trees can reduce glare, screen noise, and provide privacy from neighboring homes and community spaces. Finally, trees provide invaluable homes and habitat for countless species of wildlife.

The Dewees Island Vegetation Management Plan (Appendix 11 in the Guidelines) outlines the proper procedure for pruning and removal of selected trees on Dewees. Removal of trees without following these guidelines and receiving written approval from the Land Ecologist or the ARB is therefore a major violation of the POA Covenants and By Laws, The Dewees Island Architectural and Environmental Design Guidelines, and the Dewees Island Conservation Agreement. Since unapproved removal of trees on Dewees Island is damaging to the Dewees environment as outlined in the important functions performed by trees; and since The Dewees Island Architectural and Environmental Design Guidelines detail the proper procedures for "approved" tree removal through the Vegetation Management Plan, unapproved tree removal on Dewees Island requires the assessment of fines and sanctions sufficient in amount and scope to provide a serious deterrent and not merely serve as an additional cost of construction. . **For the purposes of this Violation Policy and the fine schedule hereby adopted, the term "removal" shall include any removal, reduction, cutting down, excavation or alteration of trees, as contemplated in Article IV of the POA Covenants and Paragraph 22(k) of the Dewees Island Architectural and Environmental Design Guidelines. The Violation Policy and schedule described below is promulgated upon the basis of the principles and goals recited herein:**

- A fine of no more than \$20,000 will be issued for the unapproved removal of any tree 10"dbh * and larger.

- A fine of no more than \$10,000 will be issued for the unapproved removal of any tree smaller than 10"dbh, but larger than 5"dbh*.

- A fine of no more than \$3,000, the actual amount to be left to the sound discretion of the Architectural Resource Board, will be issued for the unapproved removal of any tree of a dbh* measurement of 6"or less.

- In addition to the fines recited above, a replacement tree or trees, as determined by the Architectural Resource Board, of the same species as that removed must be planted in the immediate area from which the tree was removed, must be equal to no less than the total dbh of the removed tree and must be maintained and subject to replacement for a period of no less than two (2) years from the most recent replacement. In no case shall a replacement tree be less than 2" dbh. The height of the replacement tree shall be left to the sound discretion of the Architectural Resource Board.

THE PROPERTY OWNER IS REMINDED THAT THIS POLICY SUMMARY DOES NOT SUPPLANT THE ARCHITECTURAL AND ENVIRONMENTAL DESIGN GUIDELINES, VEGETATION MANAGEMENT PLAN OR CONSERVATION AGREEMENT REFERENCED ABOVE.

* "dbh" – diameter measured at breast height; the term, "caliper" is used synonymously in the Dewees Island Architectural and Environmental Design Guidelines.

Addenda July 2009

* Addenda July 2009

APPENDIX 13: A CONDENSED REFERENCE FOR THE DEWEES ISLAND TREE & VEGETATION POLICY: THE INTEGRITY OF THE CANOPY

“Man is a part of our ecology and his desires, comforts and needs must be provided for, not to the detriment of the marshlands, but in harmony with them.”

“Each building area will afford its owner of an unobstructed access of either the ocean, a marsh panorama or a lagoon.”

--quotes taken from The Land Plan dated May 1976

To attain these Goals, each lot is to be developed under a protective tree canopy that sustains the maritime forest while providing for reasonable views of the ocean, marsh or impoundment. A properly developed second-tier canopy will also provide a shady, open ground layer and prevent most shrubs, briars, thickets and undesirable stubble.

1. The Canopy refers both to the mature Oaks, Pine and Magnolia trees and to the second tier trees that grow under the primary such as Myrtles, Red Buds, Red Bay, Yaupon Holly, Wax Myrtle, etc.
2. Caution should be used not to unduly disrupt the canopy, but to selectively remove or prune up trees in order to provide for views and to create a shady, open ground area.
3. The first step in evaluating a lot for potential tree and/or other vegetation removal is to identify the number and location of the Chinese Tallow trees on the property. Many lots have thick, tall Chinese Tallow that interferes with views. In keeping with the Environmental Program Board’s goal of removing this invasive species from the island, it is strongly suggested that you first remove all Chinese Tallow (under the supervision of the Land Ecologist) in the areas that are blocking desirable views. After the removal of the Chinese Tallow, the lot may more easily be evaluated, along with the Land Ecologist, and a decision more readily be made as to the most appropriate way to manage the tree canopy. No mitigation will be required per se as a result of removal of the Chinese Tallow trees; however, it may be desirable to plant trees or other shrubs for esthetic purposes and to provide privacy from adjacent houses or streets. Refer to the ARB Guidelines (Revised August 2006) Appendix 1: Recommended Species for Planting on Dewees Island for appropriate plantings.
 - a) Oaks should be pruned (have their weaker, smaller, limbs removed) to open the interior of the tree to provide views through the trees. This allows for a healthy tree and protects the canopy of the lot. Limbs encroaching into the fire break may be trimmed away from the house.

- b) Pines naturally lose their lower limbs as they grow. Pruning these lower branches will open up viewing opportunities in mature trees. Pines that fall within the 20 foot buffer around the house may be considered for removal consistent with the Fire Protection Policy. Pines beyond that distance, limiting views of the ocean, the impoundment, Lake Timicau or Horsebend Creek, may be pruned up (having their lower limbs removed), leaving the top canopy and overall structure of the tree intact. Smaller Pines may be evaluated with regard to removal. Small trees, clustered too closely to each other and/or to a large, healthy tree, that will interfere with the tree developing into the healthy, overall canopy of the lot, may be removed under the supervision of the Land Ecologist. Mitigation for removal of Pines under the circumstances described above is not necessary: however, may be desirable for privacy.
 - c) Palmettos within the defensible space around the house and abutting the house may be removed with prior approval of the Land Ecologist. With care, Palmettos transplant well and may be considered for relocation. Consideration should be given to the esthetic and privacy benefits of relocating the Palmetto to other parts of the property. Another satisfactory method of moving the Palmetto away from the house is to tilt the tree away by staking it and allowing it to grow at an angle.
* *Addenda September 2013*
 - d) Myrtles and other second tier trees should be considered valuable in order to develop a lower canopy that will create a shady, open ground area. Trimming the low limbs of Myrtles will quickly allow this habitat to develop. Myrtles may be topped; however, as a fast growing tree, continual topping might be necessary to maintain a short shrub.
 - e) Within the setbacks of each lot, both the side setback and the front (from the street) setback, the natural habitat should remain intact as a buffer between houses and the street traffic. Additional indigenous plantings are allowed for more dense privacy and/or for aesthetic choice.
 - f) On vacant lots, no site clearing, tree cutting or any vegetation may be removed without the approval of the Land Ecologist.
 - (1) On vacant lots, no site clearing, tree cutting or any vegetation may be removed without the approval of the Land Ecologist. During the design stages of ARB submittals for approval in preparation for building, Phase III submittal must be approved and all tree issues resolved prior to any clearing on the lot other than the path for the driveway. The exception to this policy is with respect to the Chinese Tallow, which may be removed under the supervision of the Land Ecologist. * *Addenda September 2013*
 - (2) Make paths through the maritime forest at angles to the beach and never perpendicular to it.
4. When owners desire to prepare a vacant lot for marketing, they or their representative should meet with the Land Ecologist. Together they will walk the property, discussing and agreeing upon a plan of action. A driveway into the housing footprint area may be cleared to facilitate access into the lot and so that the Lull can provide prospects with a better look at the lot and views from upper floor levels. Underbrush within the housing footprint areas may be cleared, staying well within all setbacks on the lot and away from all designated wetlands. Dead Pines within the footprint areas may be cut. Trees in

heavily congested areas may be evaluated and saplings crowding mature Oaks, Pines, and Palmettos may be thinned. In addition, following the recommended procedures for pruning mature trees on the lot would create additional views. * *Addenda September 2013*

Presenting the vacant lot in a manner easily accessed allows the prospective buyer to visualize the potential of the lot and its view. The agreed upon plan for cleaning up the lot must be consistent with the above ARB policies. Requests outside the normal scope will be submitted to the ARB for review. * *Addenda September 2013*

Please refer to the Vegetative Management Plan for additional specifics, for minimizing wind damage and to the Fire Protection Plan for prudent action against fire damage.

Below are references from the governing documents for Dewees Island. The documents are presented in time sequence from the earliest dates.

Architectural Resource Board, May 20, 2009

Document Timeline and Tree References

1. Dewees Island Agreement - February 7th, 1975

Signed by: William F. ???, Eugene ???, E. B. Latimor; C & S National Bank of South Carolina, Trustee of the Capers-Dewees Trust, Exec. VP -Trust and the Wildlife & Marine Resources Department, Commission Chair

A. (8) "No trees, shrubs or other vegetation of environmental significance shall be removed except in conformance with the comprehensive development plan." [the only reference to trees in the original Agreement]

2. The Land Plan - May 1976

Plan drawn "to accomplish the terms of the Conservation Easement" E. M. Seabrook, Jr., Inc. Engineers-Surveyors-Planners was engaged to design

"The challenge for man in the future is not to maintain the status quo by stopping all development but rather to determine how to continue to grow and provide the facilities which are needed for the human element of the environment and at the same time preserve, maintain and improve as much of the marshland as is necessary to maintain the ecological balance and ecosystem with the area. Man is a part of our ecology and his desires, comforts and needs must be provided for, not to the detriment of the marshlands, but in harmony with them."

Water Supply"for maintenance of plants."

Preservation of the Dunes

The importance of the sand dunes to Dewees cannot be overemphasized and the following recommendations from the environmental sensitivity analysis should be enforced with vigor:

6. "Minimize tree cutting in maritime forest."

8. "Make paths through maritime forest at angles to the beach and never perpendicular to it."

The Plan "...must be flexible enough to permit revision."

Residential - "Each building area will afford its owner of an unobstructed access of either the ocean, a marsh panorama or a lagoon."

3. Conservation Easement Dewees Island - no date on "agreement" line. Signed by: Capers-Dewees Trust M. Truman Fallow, Vice Pres. and Pamela A. Simon, Personal Services Officer
Probate date 9-19-90; South Carolina Wildlife and Marine Resources Dept. dated 17th day of July, 1987
Probate date 10-1-94

A. (8) No trees, shrubs, or other vegetation of environmental significance shall be removed except in conformance with the comprehensive development plan.

[Conservation Easement drawn word for word from the DI Agreement referenced above]

4. Covenants and Restrictions - April, 1992
Declared by Dewees Island Property Owners Assoc, Inc. and Island Preservation Partnership, Existing Owners Bob Royall, Ed Royall, EC O'Bryan, Byron Gaithright, KW Smith, Ed Floyd, Lorin Mason Duncan Ely, Elizabeth Ely and Tomas Rogers
(Environmental issues reflected in Declaration of Rights are not addressed in the Covenants)

5. Declaration of Rights, Restrictions, Affirmative Obligations and Conditions (attached to Covenants)

Article III.

Section 1. "Purposes...creation and maintenance of a community which is aesthetically pleasing and functionally convenient."

Section 3. (b)(1) "Preventing excessive or unsightly grading, indiscriminate earth moving or clearing of property, removal of trees and vegetation..."

Article IV,

Section 2. Tree Removal "No trees may be removed from any Residential Lot except in accordance with the provisions of the Architectural Guidelines."

Section 3. Certain Controls "...Company [now POA] has the right to enter upon any property on which a building or structure has not been constructed...for the purpose of mowing, removing, clearing, cutting or pruning underbrush, weeds or other unsightly growth.....detracts from the overall beauty, setting and safety for DI.

Article V,

Section 1. Habitat Preservation In order to preserve the natural appearance and scenic beauty of the property and to

provide a "cover" for animals, there is hereby established a construction and clearing restricted marshland lot located within twenty-five (25) feet of the SC Critical Line shall be preserved substantially in its present natural state except for moderate clearing for view and breeze. ...major clearing of trees and underbrush in this area is hereby prohibited.

6. From copies of a spiral bound notebook, Seabrook Report?

Page 55: Near the ocean, the ridges and troughs grade into dunes.....it should be noted that although these plant communities are tolerant of salt spray and rains with high salt content, disruption of the plant canopy can cause death of these plants if left to tolerate singly the harsh environmental conditions prevailing in coastal communities.

Page 107:permanent structures should be placed behind all dunes where mature trees indicate a mature environment.

Caution should be taken not to disrupt significantly the canopy of this mature treeline barrier. The canopy characteristics of the regions behind the dunes are such that together they are able to withstand the rigorous environment of salt and sun. Should a significant number of trees be removed, individual trees will be left to withstand the full force of this harsh environment.

7. Architectural and Environmental Design Guidelines - Revised August 2006

I.C The Dewees Islander "You should view your existence on Dewees as nesting within the environment as other species...."

V. Design Process 3.a. "Trees may be introduced to provide shade, wind breaks or privacy screening."

3.b. "do not remove trees when locating driveway"

Appendix 11: Vegetation Management Plan - October 2000

I.A. Legal Obligation - ARB Guidelines state that "natural vegetative habitat including trees, shrubs, grasses and wildflowers must be preserved"

II.A. Sound Cutting and Pruning Decisions..."By allowing for a thick over story of trees, undergrowth is naturally shaded out...Removing too many trees or shrubs ...will encourage the growth of more trees, shrubs and brambles...The type of pruning done should depend on the growth and character of the vegetation being pruned and the desired result."

B. Pine Trees "Pruning lower branches...open up viewing opportunities. ...Cutting weaker trees while young will improve views and the health of the remaining trees."

Oaks ..."should be thinned. Spreading growth will allow filtered views through the canopy..."

Pruning or Removing Trees to Minimize Wind Damage - "...Pines as tall as or taller than the home (within 20 ft. of house) will be considered for removal"

Wax Myrtle "can easily be pruned-up to form low canopies...and will maintain a shady, open ground layer. Can be top-pruned periodically, but will need to be re-pruned every few years if they are to be maintained at a given height."

Wetland and Forest Borders i.e. freshwater wetlands, saltwater wetlands, brackish wetlands, ponds, lakes or managed wetlands (impoundment). ...to provide esthetically attractive viewing areas. While it may seem desirable to maintain clear views of them it is actually quite important that some form of buffer be maintained...Vegetation should not be removed which would leave large openings in the buffer."

Appendix 12: Tree Preservation Policy - Amended May 2002

Protection of trees on DI is integral to the philosophy of the entire community. Reference to importance in all Documents. Includes an extensive description of value of trees in environment, the explicit directions for obtaining approval to remove trees for safety or view purposes.

"Since **unapproved** removal of trees on DI is damaging to the Dewees environment as outlined in the important functions performed by trees; and since the DI ARB details the proper procedures for approved tree removal through the Vegetation Management Plan, unapproved tree removal on DI requires the assessment of fines and sanctions sufficient in amount and scope to provide a serious deterrent and not merely serve as an additional cost of construction." **Sets out the fines**

8. Dewees Island Forest Fire Protection Plan - undated

"Please refer to the DI Vegetation Management Plan"
Governing pruning and removal of vegetation"

- "Keep plant material closest to your home well-watered"

APPENDIX: 14 DEWEES ISLAND FOREST FIRE PROTECTION PLAN

A Maritime Forest is an ecosystem which consists of vegetation, living or dead, vulnerable to fire. There are a number of steps that individual property owners can take on Dewees to lessen the threat of a wildfire destroying their home. Approximately 95% of the chance of a wildfire occurring has been eliminated by the Dewees policy of no outdoor fires and the use of metal roofs.

Remember to consult with the Land Ecologist before the removal of any tree and shrub or any vegetation removal outside of the permanent disturbance area. Please refer to the Dewees Island Vegetation Management Plan (Appendix 11 of the ARB Guidelines) as this is the document governing the pruning and removal of vegetation on Dewees Island. The following should be a guide in your fire prevention efforts. Please refer to Appendix 14: The Dewees Island Forest Fire Protection Plan in the ARB Guidelines for further details.

LANDSCAPE:

- Maintain your driveway to allow for access for firefighting equipment; a 12' x 12' area free of trees. The driveway should also act as a firebreak and be kept free of flammable material.
- Prune overhanging branches from roofs, particularly near chimneys.
- Maintain a 15' defensible space around the home for firefighting room. This area will contain plant material but should be an area free of dead/dry material, and should provide easy access around all sides of the home for dragging fire hoses and otherwise protecting the home from wildfire. Trees located within 15 feet of the home should have lower limbs removed. Maintain any vegetation within the defensible space in a healthy condition. Hardwood trees such as oaks tend to be less flammable than conifers like pines. Remember the 15' defensible space will impact your total disturbance area calculations.
- Plant material closest to your home should be the smallest, getting larger the further the distance from the home. Keep plant material closest to your home well-watered. Please remember it is very important to maintain a shrub and sapling layer in the Maritime Forest. This level in the canopy absorbs wave energy during hurricane tidal surges thus reducing the amount of damage to the island. A heavy canopy reduces ground level shrubs.
- Prune and remove dead material from all plants within the 15' defensible space. Of particular concern should be suspended material which might carry the fire into the tops of trees and shrubs. Leaf litter and straw on the ground is not as much a concern.
- Dead pine trees within falling distance of your home and living pine trees within 20 feet of your home can be removed with prior approval from the ARB.

Deciduous native plants which are less flammable include:

Dogwood, Viburnum sp, Redbud, Sycamore, Sweetbay Magnolia, Beautyberry, Red Maple, Wild Azalea, Sweetgum, Winged Elm, Black Cherry, Persimmon, Chickasaw Plum, Fringetree, Ferns, Sparkleberry.

BUILDING:

- Outdoor water faucets should be located on each side of your home and near outbuildings. Have a coiled hose attached to faucets on opposite sides of your home.
- Use fire resistant materials on the exterior of your home (roof, siding, decking, and trim)
- Protect interiors from sparks and embers by boxing in eaves, screening vents and underpinning or screening beneath porches, decks and the house itself.
- Chimneys should extend above the roof line and be topped with a 1/2 inch mesh spark arrester.

HOME MAINTENANCE:

- Make sure your fire alarm and sprinkler system is activated and monitored. Consider installing sprinklers and/or heat sensors on the ground floor of your home and make sure they are activated and monitored. As the Guidelines require heat sensors over the golf cart parking areas, suggest that you add sprinklers or heat sensors “under the entire area on the ground floor.”
- Do not store flammable materials such as fire wood, lumber or fuels under or near your home. Store these at least 100 feet away from the house. Propane tanks should be buried to prevent an explosion during a fire.
- Keep roofs free of debris (leaves, pine straw, moss and twigs).
- Safely dispose of stove, fireplace, and grill ashes. First, place them in a bucket, soak with water, and then bury them in sandy soil.
- Hand tools such as rakes, shovels, and axes should be readily available.

APPENDIX 15: AIA DOCUMENT B101 STANDARD FORM OF AGREEMENT BETWEEN OWNER AND ARCHITECT

Addenda July 2009

AGREEMENT made as of the _____ day of _____ in the year _____
(In words, indicate day, month and year)

BETWEEN the Architect's client identified as the Owner:
(Name, address and other information)



and the Architect:
(Name, address and other information)



for the following Project:
(Name, location and detailed description)



The Owner and Architect agree as follows.

TABLE OF ARTICLES

1	INITIAL INFORMATION
2	ARCHITECT'S RESPONSIBILITIES
3	SCOPE OF ARCHITECT'S BASIC SERVICES
4	ADDITIONAL SERVICES
5	OWNER'S RESPONSIBILITIES
6	COST OF THE WORK
7	COPYRIGHTS AND LICENSES
8	CLAIMS AND DISPUTES
9	TERMINATION OR SUSPENSION
10	MISCELLANEOUS PROVISIONS
11	COMPENSATION
12	SPECIAL TERMS AND CONDITIONS
13	SCOPE OF THE AGREEMENT

EXHIBIT A INITIAL INFORMATION

ARTICLE 1 INITIAL INFORMATION

1.1 This Agreement is based on the Initial Information set forth in this Article 1 and in optional Exhibit A, Initial Information:

(Complete Exhibit A, Initial Information, and incorporate it into the Agreement at Section 13.2, or state below Initial Information such as details of the Project's site and program, Owner's contractors and consultants, Architect's consultants, Owner's budget for the Cost of the Work, authorized representatives, anticipated procurement method, and other information relevant to the Project.)

1.2 The Owner's anticipated dates for commencement of construction and Substantial Completion of the Work are set forth below:

.1 Commencement of construction date:

.2 Substantial Completion date:

1.3 The Owner and Architect may rely on the Initial Information. Both parties, however, recognize that such information may materially change and, in that event, the Owner and the Architect shall appropriately adjust the schedule, the Architect's services and the Architect's compensation.

ARTICLE 2 ARCHITECT'S RESPONSIBILITIES

2.1 The Architect shall provide the professional services as set forth in this Agreement.

2.2 The Architect shall perform its services consistent with the professional skill and care ordinarily provided by architects practicing in the same or similar locality under the same or similar circumstances. The Architect shall perform its services as expeditiously as is consistent with such professional skill and care and the orderly progress of the Project.

2.3 The Architect shall identify a representative authorized to act on behalf of the Architect with respect to the Project.

2.4 Except with the Owner's knowledge and consent, the Architect shall not engage in any activity, or accept any employment, interest or contribution that would reasonably appear to compromise the Architect's professional judgment with respect to this Project.

2.5 The Architect shall maintain the following insurance for the duration of this Agreement. If any of the requirements set forth below exceed the types and limits the Architect normally maintains, the Owner shall reimburse the Architect for any additional cost:

(Identify types and limits of insurance coverage, and other insurance requirements applicable to the Agreement, if any.)

.1 General Liability

.2 Automobile Liability

.3 Workers' Compensation

.4 Professional Liability

ARTICLE 3 SCOPE OF ARCHITECT'S BASIC SERVICES

3.1 The Architect's Basic Services consist of those described in Article 3 and include usual and customary structural, mechanical, and electrical engineering services. Services not set forth in Article 3 are Additional Services.

3.1.1 The Architect shall manage the Architect's services, consult with the Owner, research applicable design criteria, attend Project meetings, communicate with members of the Project team and report progress to the Owner.

3.1.2 The Architect shall coordinate its services with those services provided by the Owner and the Owner's consultants. The Architect shall be entitled to rely on the accuracy and completeness of services and information furnished by the Owner and the Owner's consultants. The Architect shall provide prompt written notice to the Owner if the Architect becomes aware of any error, omission or inconsistency in such services or information.

3.1.3 As soon as practicable after the date of this Agreement, the Architect shall submit for the Owner's approval a schedule for the performance of the Architect's services. The schedule initially shall include anticipated dates for the commencement of construction and for Substantial Completion of the Work as set forth in the Initial Information. The schedule shall include allowances for periods of time required for the Owner's review, for the performance of the Owner's consultants, and for approval of submissions by authorities having jurisdiction over the Project. Once approved by the Owner, time limits established by the schedule shall not, except for reasonable cause, be exceeded by the Architect or Owner. With the Owner's approval, the Architect shall adjust the schedule, if necessary as the Project proceeds until the commencement of construction.

3.1.4 The Architect shall not be responsible for an Owner's directive or substitution made without the Architect's approval.

3.1.5 The Architect shall, at appropriate times, contact the governmental authorities required to approve the Construction Documents and the entities providing utility services to the Project. In designing the Project, the Architect shall respond to applicable design requirements imposed by such governmental authorities and by such entities providing utility services.

3.1.6 The Architect shall assist the Owner in connection with the Owner's responsibility for filing documents required for the approval of governmental authorities having jurisdiction over the Project.

3.2 SCHEMATIC DESIGN PHASE SERVICES

3.2.1 The Architect shall review the program and other information furnished by the Owner, and shall review laws, codes, and regulations applicable to the Architect's services.

3.2.2 The Architect shall prepare a preliminary evaluation of the Owner's program, schedule, budget for the Cost of the Work, Project site, and the proposed procurement or delivery method and other Initial Information, each in terms of the other, to ascertain the requirements of the Project. The Architect shall notify the Owner of (1) any inconsistencies discovered in the information, and (2) other information or consulting services that may be reasonably needed for the Project.

3.2.3 The Architect shall present its preliminary evaluation to the Owner and shall discuss with the Owner alternative approaches to design and construction of the Project, including the feasibility of incorporating environmentally responsible design approaches. The Architect shall reach an understanding with the Owner regarding the requirements of the Project.

3.2.4 Based on the Project's requirements agreed upon with the Owner, the Architect shall prepare and present for the Owner's approval a preliminary design illustrating the scale and relationship of the Project components.

3.2.5 Based on the Owner's approval of the preliminary design, the Architect shall prepare Schematic Design Documents for the Owner's approval. The Schematic Design Documents shall consist of drawings and other documents including a site plan, if appropriate, and preliminary building plans, sections and elevations; and may include some combination of study models, perspective sketches, or digital modeling. Preliminary selections of major building systems and construction materials shall be noted on the drawings or described in writing.

3.2.5.1 The Architect shall consider environmentally responsible design alternatives, such as material choices and building orientation, together with other considerations based on program and aesthetics, in developing a design that is consistent with the Owner's program, schedule and budget for the Cost of the Work. The Owner may obtain other environmentally responsible design services under Article 4.

3.2.5.2 The Architect shall consider the value of alternative materials, building systems and equipment, together with other considerations based on program and aesthetics in developing a design for the Project that is consistent with the Owner's program, schedule and budget for the Cost of the Work.

3.2.6 The Architect shall submit to the Owner an estimate of the Cost of the Work prepared in accordance with Section 6.3.

3.2.7 The Architect shall submit the Schematic Design Documents to the Owner, and request the Owner's approval.

3.3 DESIGN DEVELOPMENT PHASE SERVICES

3.3.1 Based on the Owner's approval of the Schematic Design Documents, and on the Owner's authorization of any adjustments in the Project requirements and the budget for the Cost of the Work, the Architect shall prepare Design Development Documents for the Owner's approval. The Design Development Documents shall illustrate and describe the development of the approved Schematic Design Documents and shall consist of drawings and other documents including plans, sections, elevations, typical construction details, and diagrammatic layouts of building systems to fix and describe the size and character of the Project as to architectural, structural, mechanical and electrical systems, and such other

elements as may be appropriate. The Design Development Documents shall also include outline specifications that identify major materials and systems and establish in general their quality levels.

3.3.2 The Architect shall update the estimate of the Cost of the Work.

3.3.3 The Architect shall submit the Design Development documents to the Owner, advise the Owner of any adjustments to the estimate of the Cost of the Work, and request the Owner's approval.

3.4 CONSTRUCTION DOCUMENTS PHASE SERVICES

3.4.1 Based on the Owner's approval of the Design Development Documents, and on the Owner's authorization of any adjustments in the Project requirements and the budget for the Cost of the Work, the Architect shall prepare Construction Documents for the Owner's approval. The Construction Documents shall illustrate and describe the further development of the approved Design Development Documents and shall consist of Drawings and Specifications setting forth in detail the quality levels of materials and systems and other requirements for the construction of the Work. The Owner and Architect acknowledge that in order to construct the Work the Contractor will provide additional information, including Shop Drawings, Product Data, Samples and other similar submittals, which the Architect shall review in accordance with Section 3.6.4.

3.4.2 The Architect shall incorporate into the Construction Documents the design requirements of governmental authorities having jurisdiction over the Project.

3.4.3 During the development of the Construction Documents, the Architect shall assist the Owner in the development and preparation of (1) bidding and procurement information that describes the time, place and conditions of bidding, including bidding or proposal forms; (2) the form of agreement between the Owner and Contractor; and (3) the Conditions of the Contract for Construction (General, Supplementary and other Conditions). The Architect shall also compile a project manual that includes the Conditions of the Contract for Construction and Specifications and may include bidding requirements and sample forms.

3.4.4 The Architect shall update the estimate for the Cost of the Work.

3.4.5 The Architect shall submit the Construction Documents to the Owner, advise the Owner of any adjustments to the estimate of the Cost of the Work, take any action required under Section 6.5, and request the Owner's approval.

3.5 BIDDING OR NEGOTIATION PHASE SERVICES

3.5.1 GENERAL

The Architect shall assist the Owner in establishing a list of prospective contractors. Following the Owner's approval of the Construction Documents, the Architect shall assist the Owner in (1) obtaining either competitive bids or negotiated proposals; (2) confirming responsiveness of bids or proposals; (3) determining the successful bid or proposal, if any; and, (4) awarding and preparing contracts for construction.

3.5.2 COMPETITIVE BIDDING

3.5.2.1 Bidding Documents shall consist of bidding requirements and proposed Contract Documents.

3.5.2.2 The Architect shall assist the Owner in bidding the Project by

- .1 procuring the reproduction of Bidding Documents for distribution to prospective bidders;
- .2 distributing the Bidding Documents to prospective bidders, requesting their return upon completion of the bidding process, and maintaining a log of distribution and retrieval and of the amounts of deposits, if any, received from and returned to prospective bidders;
- .3 organizing and conducting a pre-bid conference for prospective bidders;
- .4 preparing responses to questions from prospective bidders and providing clarifications and interpretations of the Bidding Documents to all prospective bidders in the form of addenda; and
- .5 organizing and conducting the opening of the bids, and subsequently documenting and distributing the bidding results, as directed by the Owner.

3.5.2.3 The Architect shall consider requests for substitutions, if the Bidding Documents permit substitutions, and shall prepare and distribute addenda identifying approved substitutions to all prospective bidders.

3.5.3 NEGOTIATED PROPOSALS

3.5.3.1 Proposal Documents shall consist of proposal requirements and proposed Contract Documents.

3.5.3.2 The Architect shall assist the Owner in obtaining proposals by

- .1 procuring the reproduction of Proposal Documents for distribution to prospective contractors, and requesting their return upon completion of the negotiation process;
- .2 organizing and participating in selection interviews with prospective contractors; and
- .3 participating in negotiations with prospective contractors, and subsequently preparing a summary report of the negotiation results, as directed by the Owner.

3.5.3.3 The Architect shall consider requests for substitutions, if the Proposal Documents permit substitutions, and shall prepare and distribute addenda identifying approved substitutions to all prospective contractors.

3.6 CONSTRUCTION PHASE SERVICES

3.6.1 GENERAL

3.6.1.1 The Architect shall provide administration of the Contract between the Owner and the Contractor as set forth below and in AIA Document A201™–2007, General Conditions of the Contract for Construction. If the Owner and Contractor modify AIA Document A201–2007, those modifications shall not affect the Architect's services under this Agreement unless the Owner and the Architect amend this Agreement.

3.6.1.2 The Architect shall advise and consult with the Owner during the Construction Phase Services. The Architect shall have authority to act on behalf of the Owner only to the extent provided in this Agreement. The Architect shall not have control over, charge of, or responsibility for the construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, nor shall the Architect be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect shall be responsible for the Architect's negligent acts or omissions, but shall not have control over or charge of, and shall not be responsible for, acts or omissions of the Contractor or of any other persons or entities performing portions of the Work.

3.6.1.3 Subject to Section 4.3, the Architect's responsibility to provide Construction Phase Services commences with the award of the Contract for Construction and terminates on the date the Architect issues the final Certificate for Payment.

3.6.2 EVALUATIONS OF THE WORK

3.6.2.1 The Architect shall visit the site at intervals appropriate to the stage of construction, or as otherwise required in Section 4.3.3, to become generally familiar with the progress and quality of the portion of the Work completed, and to determine, in general, if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Architect shall not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. On the basis of the site visits, the Architect shall keep the Owner reasonably informed about the progress and quality of the portion of the Work completed, and report to the Owner (1) known deviations from the Contract Documents and from the most recent construction schedule submitted by the Contractor, and (2) defects and deficiencies observed in the Work.

3.6.2.2 The Architect has the authority to reject Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect shall have the authority to require inspection or testing of the Work in accordance with the provisions of the Contract Documents, whether or not such Work is fabricated, installed or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect to the Contractor, Subcontractors, material and equipment suppliers, their agents or employees or other persons or entities performing portions of the Work.

3.6.2.3 The Architect shall interpret and decide matters concerning performance under, and requirements of, the Contract Documents on written request of either the Owner or Contractor. The Architect's response to such requests shall be made in writing within any time limits agreed upon or otherwise with reasonable promptness.

3.6.2.4 Interpretations and decisions of the Architect shall be consistent with the intent of and reasonably inferable from the Contract Documents and shall be in writing or in the form of drawings. When making such interpretations and decisions, the Architect shall endeavor to secure faithful performance by both Owner and Contractor, shall not show partiality to either, and shall not be liable for results of interpretations or decisions rendered in good faith. The Architect's decisions on matters relating to aesthetic effect shall be final if consistent with the intent expressed in the Contract Documents.

3.6.2.5 Unless the Owner and Contractor designate another person to serve as an Initial Decision Maker, as that term is defined in AIA Document A201-2007, the Architect shall render initial decisions on Claims between the Owner and Contractor as provided in the Contract Documents.

3.6.3 CERTIFICATES FOR PAYMENT TO CONTRACTOR

3.6.3.1 The Architect shall review and certify the amounts due the Contractor and shall issue certificates in such amounts. The Architect's certification for payment shall constitute a representation to the Owner, based on the Architect's evaluation of the Work as provided in Section 3.6.2 and on the data comprising the Contractor's Application for Payment, that, to the best of the Architect's knowledge, information and belief, the Work has progressed to the point indicated and that the quality of the Work is in accordance with the Contract Documents. The foregoing representations are subject (1) to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, (2) to results of subsequent tests and inspections, (3) to correction of minor deviations from the Contract Documents prior to completion, and (4) to specific qualifications expressed by the Architect.

3.6.3.2 The issuance of a Certificate for Payment shall not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work, (2) reviewed construction means, methods, techniques, sequences or procedures, (3) reviewed copies of requisitions received from Subcontractors and material suppliers and other data requested by the Owner to substantiate the Contractor's right to payment, or (4) ascertained how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

3.6.3.3 The Architect shall maintain a record of the Applications and Certificates for Payment.

3.6.4 SUBMITTALS

3.6.4.1 The Architect shall review the Contractor's submittal schedule and shall not unreasonably delay or withhold approval. The Architect's action in reviewing submittals shall be taken in accordance with the approved submittal schedule or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time in the Architect's professional judgment to permit adequate review.

3.6.4.2 In accordance with the Architect-approved submittal schedule, the Architect shall review and approve or take other appropriate action upon the Contractor's submittals such as Shop Drawings, Product Data and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. Review of such submittals is not for the purpose of determining the accuracy and completeness of other information such as dimensions, quantities, and installation or performance of equipment or systems, which are the Contractor's responsibility. The Architect's review shall not constitute approval of safety precautions or, unless otherwise specifically stated by the Architect, of any construction means, methods, techniques, sequences or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

3.6.4.3 If the Contract Documents specifically require the Contractor to provide professional design services or certifications by a design professional related to systems, materials or equipment, the Architect shall specify the appropriate performance and design criteria that such services must satisfy. The Architect shall review shop drawings and other submittals related to the Work designed or certified by the design professional retained by the Contractor that bear such professional's seal and signature when submitted to the Architect. The Architect shall be entitled to rely upon the adequacy, accuracy and

completeness of the services, certifications and approvals performed or provided by such design professionals.

3.6.4.4 Subject to the provisions of Section 4.3, the Architect shall review and respond to requests for information about the Contract Documents. The Architect shall set forth in the Contract Documents the requirements for requests for information. Requests for information shall include, at a minimum, a detailed written statement that indicates the specific Drawings or Specifications in need of clarification and the nature of the clarification requested. The Architect's response to such requests shall be made in writing within any time limits agreed upon, or otherwise with reasonable promptness. If appropriate, the Architect shall prepare and issue supplemental Drawings and Specifications in response to requests for information.

3.6.4.5 The Architect shall maintain a record of submittals and copies of submittals supplied by the Contractor in accordance with the requirements of the Contract Documents.

3.6.5 CHANGES IN THE WORK

3.6.5.1 The Architect may authorize minor changes in the Work that are consistent with the intent of the Contract Documents and do not involve an adjustment in the Contract Sum or an extension of the Contract Time. Subject to the provisions of Section 4.3, the Architect shall prepare Change Orders and Construction Change Directives for the Owner's approval and execution in accordance with the Contract Documents.

3.6.5.2 The Architect shall maintain records relative to changes in the Work.

3.6.6 PROJECT COMPLETION

3.6.6.1 The Architect shall conduct inspections to determine the date or dates of Substantial Completion and the date of final completion; issue Certificates of Substantial Completion; receive from the Contractor and forward to the Owner, for the Owner's review and records, written warranties and related documents required by the Contract Documents and assembled by the Contractor; and issue a final Certificate for Payment based upon a final inspection indicating the Work complies with the requirements of the Contract Documents.

3.6.6.2 The Architect's inspections shall be conducted with the Owner to check conformance of the Work with the requirements of the Contract Documents and to verify the accuracy and completeness of the list submitted by the Contractor of Work to be completed or corrected.

3.6.6.3 When the Work is found to be substantially complete, the Architect shall inform the Owner about the balance of the Contract Sum remaining to be paid the Contractor, including the amount to be retained from the Contract Sum, if any, for final completion or correction of the Work.

3.6.6.4 The Architect shall forward to the Owner the following information received from the Contractor: (1) consent of surety or sureties, if any, to reduction in or partial release of retainage or the making of final payment; (2) affidavits, receipts, releases and waivers of liens or bonds indemnifying the Owner against liens; and (3) any other documentation required of the Contractor under the Contract Documents.

3.6.6.5 Upon request of the Owner, and prior to the expiration of one year from the date of Substantial Completion, the Architect shall, without additional compensation, conduct a meeting with the Owner to review the facility operations and performance.

ARTICLE 4 ADDITIONAL SERVICES

4.1 Additional Services listed below are not included in Basic Services but may be required for the Project. The Architect shall provide the listed Additional Services only if specifically designated in the table below as the Architect's responsibility, and the Owner shall compensate the Architect as provided in Section 11.2.

(Designate the Additional Services the Architect shall provide in the second column of the table below. In the third column indicate whether the service description is located in Section 4.2 or in an attached exhibit. If in an exhibit, identify the exhibit.)

Additional Services	Responsibility (Architect, Owner or Not Provided)	Location of Service Description (Section 4.2 below or in an exhibit attached to this document and identified below)
4.1.1	Programming	
4.1.2	Multiple preliminary designs	
4.1.3	Measured drawings	
4.1.4	Existing facilities surveys	
4.1.5	Site Evaluation and Planning (B203™–2007)	
4.1.6	Building information modeling	
4.1.7	Civil engineering	
4.1.8	Landscape design	
4.1.9	Architectural Interior Design (B252™–2007)	
4.1.10	Value Analysis (B204™–2007)	
4.1.11	Detailed cost estimating	
4.1.12	On-site project representation	
4.1.13	Conformed construction documents	
4.1.14	As-designed record drawings	
4.1.15	As-constructed record drawings	
4.1.16	Post occupancy evaluation	
4.1.17	Facility Support Services (B210™–2007)	
4.1.18	Tenant-related services	
4.1.19	Coordination of Owner’s consultants	
4.1.20	Telecommunications/data design	
4.1.21	Security Evaluation and Planning (B206™–2007)	
4.1.22	Commissioning (B211™–2007)	
4.1.23	Extensive environmentally responsible design	
4.1.24	LEED® Certification (B214™–2007)	
4.1.25	Fast-track design services	
4.1.26	Historic Preservation (B205™–2007)	
4.1.27	Furniture, Finishings, and Equipment Design (B253™–2007)	

4.2 Insert a description of each Additional Service designated in Section 4.1 as the Architect’s responsibility, if not further described in an exhibit attached to this document.



4.3 Additional Services may be provided after execution of this Agreement, without invalidating the Agreement. Except for services required due to the fault of the Architect, any Additional Services provided in accordance with this Section 4.3 shall entitle the Architect to compensation pursuant to Section 11.3 and an appropriate adjustment in the Architect’s schedule.

4.3.1 Upon recognizing the need to perform the following Additional Services, the Architect shall notify the Owner with reasonable promptness and explain the facts and circumstances giving rise to the need. The Architect shall not proceed to provide the following services until the Architect receives the Owner’s written authorization:

- .1 Services necessitated by a change in the Initial Information, previous instructions or approvals given by the Owner, or a material change in the Project including, but not limited to, size, quality, complexity, the Owner’s schedule or budget for Cost of the Work, or procurement or delivery method;
- .2 Services necessitated by the Owner’s request for extensive environmentally responsible design alternatives, such as unique system designs, in-depth material research, energy modeling, or LEED® certification;

- .3 Changing or editing previously prepared Instruments of Service necessitated by the enactment or revision of codes, laws or regulations or official interpretations;
- .4 Services necessitated by decisions of the Owner not rendered in a timely manner or any other failure of performance on the part of the Owner or the Owner's consultants or contractors;
- .5 Preparing digital data for transmission to the Owner's consultants and contractors, or to other Owner authorized recipients;
- .6 Preparation of design and documentation for alternate bid or proposal requests proposed by the Owner;
- .7 Preparation for, and attendance at, a public presentation, meeting or hearing;
- .8 Preparation for, and attendance at a dispute resolution proceeding or legal proceeding, except where the Architect is party thereto;
- .9 Evaluation of the qualifications of bidders or persons providing proposals;
- .10 Consultation concerning replacement of Work resulting from fire or other cause during construction; or
- .11 Assistance to the Initial Decision Maker, if other than the Architect.

4.3.2 To avoid delay in the Construction Phase, the Architect shall provide the following Additional Services, notify the Owner with reasonable promptness, and explain the facts and circumstances giving rise to the need. If the Owner subsequently determines that all or parts of those services are not required, the Owner shall give prompt written notice to the Architect, and the Owner shall have no further obligation to compensate the Architect for those services:

- .1 Reviewing a Contractor's submittal out of sequence from the submittal schedule agreed to by the Architect;
- .2 Responding to the Contractor's requests for information that are not prepared in accordance with the Contract Documents or where such information is available to the Contractor from a careful study and comparison of the Contract Documents, field conditions, other Owner-provided information, Contractor-prepared coordination drawings, or prior Project correspondence or documentation;
- .3 Preparing Change Orders and Construction Change Directives that require evaluation of Contractor's proposals and supporting data, or the preparation or revision of Instruments of Service;
- .4 Evaluating an extensive number of Claims as the Initial Decision Maker;
- .5 Evaluating substitutions proposed by the Owner or Contractor and making subsequent revisions to Instruments of Service resulting therefrom; or
- .6 To the extent the Architect's Basic Services are affected, providing Construction Phase Services 60 days after (1) the date of Substantial Completion of the Work or (2) the anticipated date of Substantial Completion identified in Initial Information, whichever is earlier.

4.3.3 The Architect shall provide Construction Phase Services exceeding the limits set forth below as Additional Services. When the limits below are reached, the Architect shall notify the Owner:

- .1 () reviews of each Shop Drawing, Product Data item, sample and similar submittal of the Contractor
- .2 () visits to the site by the Architect over the duration of the Project during construction
- .3 () inspections for any portion of the Work to determine whether such portion of the Work is substantially complete in accordance with the requirements of the Contract Documents
- .4 () inspections for any portion of the Work to determine final completion

4.3.4 If the services covered by this Agreement have not been completed within () months of the date of this Agreement, through no fault of the Architect, extension of the Architect's services beyond that time shall be compensated as Additional Services.

ARTICLE 5 OWNER'S RESPONSIBILITIES

5.1 Unless otherwise provided for under this Agreement, the Owner shall provide information in a timely manner regarding requirements for and limitations on the Project, including a written program which shall set forth the Owner's objectives, schedule, constraints and criteria, including space requirements and relationships, flexibility, expandability, special equipment, systems and site requirements. Within 15 days after receipt of a written request from the Architect, the Owner shall furnish the requested information as necessary and relevant for the Architect to evaluate, give notice of or enforce lien rights.

5.2 The Owner shall establish and periodically update the Owner's budget for the Project, including (1) the budget for the Cost of the Work as defined in Section 6.1; (2) the Owner's other costs; and, (3) reasonable contingencies related to all of these costs. If the Owner significantly increases or decreases the Owner's budget for the Cost of the Work, the Owner shall notify the Architect. The Owner and the Architect shall thereafter agree to a corresponding change in the Project's scope and quality.

5.3 The Owner shall identify a representative authorized to act on the Owner's behalf with respect to the Project. The Owner shall render decisions and approve the Architect's submittals in a timely manner in order to avoid unreasonable delay in the orderly and sequential progress of the Architect's services.

5.4 The Owner shall furnish surveys to describe physical characteristics, legal limitations and utility locations for the site of the Project, and a written legal description of the site. The surveys and legal information shall include, as applicable, grades and lines of streets, alleys, pavements and adjoining property and structures; designated wetlands; adjacent drainage; rights-of-way, restrictions, easements, encroachments, zoning, deed restrictions, boundaries and contours of the site; locations, dimensions and necessary data with respect to existing buildings, other improvements and trees; and information concerning available utility services and lines, both public and private, above and below grade, including inverts and depths. All the information on the survey shall be referenced to a Project benchmark.

5.5 The Owner shall furnish services of geotechnical engineers, which may include but are not limited to test borings, test pits, determinations of soil bearing values, percolation tests, evaluations of hazardous materials, seismic evaluation, ground corrosion tests and resistivity tests, including necessary operations for anticipating subsoil conditions, with written reports and appropriate recommendations.

5.6 The Owner shall coordinate the services of its own consultants with those services provided by the Architect. Upon the Architect's request, the Owner shall furnish copies of the scope of services in the contracts between the Owner and the Owner's consultants. The Owner shall furnish the services of consultants other than those designated in this Agreement, or authorize the Architect to furnish them as an Additional Service, when the Architect requests such services and demonstrates that they are reasonably required by the scope of the Project. The Owner shall require that its consultants maintain professional liability insurance as appropriate to the services provided.

5.7 The Owner shall furnish tests, inspections and reports required by law or the Contract Documents, such as structural, mechanical, and chemical tests, tests for air and water pollution, and tests for hazardous materials.

5.8 The Owner shall furnish all legal, insurance and accounting services, including auditing services that may be reasonably necessary at any time for the Project to meet the Owner's needs and interests.

5.9 The Owner shall provide prompt written notice to the Architect if the Owner becomes aware of any fault or defect in the Project, including errors, omissions or inconsistencies in the Architect's Instruments of Service.

5.10 Except as otherwise provided in this Agreement, or when direct communications have been specially authorized, the Owner shall endeavor to communicate with the Contractor and the Architect's consultants through the Architect about matters arising out of or relating to the Contract Documents. The Owner shall promptly notify the Architect of any direct communications that may affect the Architect's services.

5.11 Before executing the Contract for Construction, the Owner shall coordinate the Architect's duties and responsibilities set forth in the Contract for Construction with the Architect's services set forth in this Agreement. The Owner shall provide the Architect a copy of the executed agreement between the Owner and Contractor, including the General Conditions of the Contract for Construction.

5.12 The Owner shall provide the Architect access to the Project site prior to commencement of the Work and shall obligate the Contractor to provide the Architect access to the Work wherever it is in preparation or progress.

ARTICLE 6 COST OF THE WORK

6.1 For purposes of this Agreement, the Cost of the Work shall be the total cost to the Owner to construct all elements of the Project designed or specified by the Architect and shall include contractors' general conditions costs, overhead and profit. The Cost of the Work does not include the compensation of the Architect, the costs of the land, rights-of-way, financing, and contingencies for changes in the Work or other costs that are the responsibility of the Owner.

6.2 The Owner's budget for the Cost of the Work is provided in Initial Information, and may be adjusted throughout the Project as required under Sections 5.2, 6.4 and 6.5. Evaluations of the Owner's budget for the Cost of the Work, the preliminary estimate of the Cost of the Work and updated estimates of the Cost of the Work prepared by the Architect, represent the Architect's judgment as a design professional. It is recognized, however, that neither the Architect nor the Owner has control over the cost of labor, materials or equipment; the Contractor's methods of determining bid prices; or competitive bidding, market or negotiating conditions. Accordingly, the Architect cannot and does not warrant or represent

that bids or negotiated prices will not vary from the Owner's budget for the Cost of the Work or from any estimate of the Cost of the Work or evaluation prepared or agreed to by the Architect.

6.3 In preparing estimates of the Cost of Work, the Architect shall be permitted to include contingencies for design, bidding and price escalation; to determine what materials, equipment, component systems and types of construction are to be included in the Contract Documents; to make reasonable adjustments in the program and scope of the Project; and to include in the Contract Documents alternate bids as may be necessary to adjust the estimated Cost of the Work to meet the Owner's budget for the Cost of the Work. The Architect's estimate of the Cost of the Work shall be based on current area, volume or similar conceptual estimating techniques. If the Owner requests detailed cost estimating services, the Architect shall provide such services as an Additional Service under Article 4.

6.4 If the Bidding or Negotiation Phase has not commenced within 90 days after the Architect submits the Construction Documents to the Owner, through no fault of the Architect, the Owner's budget for the Cost of the Work shall be adjusted to reflect changes in the general level of prices in the applicable construction market.

6.5 If at any time the Architect's estimate of the Cost of the Work exceeds the Owner's budget for the Cost of the Work, the Architect shall make appropriate recommendations to the Owner to adjust the Project's size, quality or budget for the Cost of the Work, and the Owner shall cooperate with the Architect in making such adjustments.

6.6 If the Owner's budget for the Cost of the Work at the conclusion of the Construction Documents Phase Services is exceeded by the lowest bona fide bid or negotiated proposal, the Owner shall

- .1 give written approval of an increase in the budget for the Cost of the Work;
- .2 authorize rebidding or renegotiating of the Project within a reasonable time;
- .3 terminate in accordance with Section 9.5;
- .4 in consultation with the Architect, revise the Project program, scope, or quality as required to reduce the Cost of the Work; or
- .5 implement any other mutually acceptable alternative.

6.7 If the Owner chooses to proceed under Section 6.6.4, the Architect, without additional compensation, shall modify the Construction Documents as necessary to comply with the Owner's budget for the Cost of the Work at the conclusion of the Construction Documents Phase Services, or the budget as adjusted under Section 6.6.1. The Architect's modification of the Construction Documents shall be the limit of the Architect's responsibility under this Article 6.

ARTICLE 7 COPYRIGHTS AND LICENSES

7.1 The Architect and the Owner warrant that in transmitting Instruments of Service, or any other information, the transmitting party is the copyright owner of such information or has permission from the copyright owner to transmit such information for its use on the Project. If the Owner and Architect intend to transmit Instruments of Service or any other information or documentation in digital form, they shall endeavor to establish necessary protocols governing such transmissions.

7.2 The Architect and the Architect's consultants shall be deemed the authors and owners of their respective Instruments of Service, including the Drawings and Specifications, and shall retain all common law, statutory and other reserved rights, including copyrights. Submission or distribution of Instruments of Service to meet official regulatory requirements or for similar purposes in connection with the Project is not to be construed as publication in derogation of the reserved rights of the Architect and the Architect's consultants.

7.3 Upon execution of this Agreement, the Architect grants to the Owner a nonexclusive license to use the Architect's Instruments of Service solely and exclusively for purposes of constructing, using, maintaining, altering and adding to the Project, provided that the Owner substantially performs its obligations, including prompt payment of all sums when due, under this Agreement. The Architect shall obtain similar nonexclusive licenses from the Architect's consultants consistent with this Agreement. The license granted under this section permits the Owner to authorize the Contractor, Subcontractors, Sub-subcontractors, and material or equipment suppliers, as well as the Owner's consultants and separate contractors, to reproduce applicable portions of the Instruments of Service solely and exclusively for use in performing services or construction for the Project. If the Architect rightfully terminates this Agreement for cause as provided in Section 9.4, the license granted in this Section 7.3 shall terminate.

7.3.1 In the event the Owner uses the Instruments of Service without retaining the author of the Instruments of Service, the Owner releases the Architect and Architect's consultant(s) from all claims and causes of action arising from such

uses. The Owner, to the extent permitted by law, further agrees to indemnify and hold harmless the Architect and its consultants from all costs and expenses, including the cost of defense, related to claims and causes of action asserted by any third person or entity to the extent such costs and expenses arise from the Owner's use of the Instruments of Service under this Section 7.3.1. The terms of this Section 7.3.1 shall not apply if the Owner rightfully terminates this Agreement for cause under Section 9.4.

7.4 Except for the licenses granted in this Article 7, no other license or right shall be deemed granted or implied under this Agreement. The Owner shall not assign, delegate, sublicense, pledge or otherwise transfer any license granted herein to another party without the prior written agreement of the Architect. Any unauthorized use of the Instruments of Service shall be at the Owner's sole risk and without liability to the Architect and the Architect's consultants.

ARTICLE 8 CLAIMS AND DISPUTES

8.1 GENERAL

8.1.1 The Owner and Architect shall commence all claims and causes of action, whether in contract, tort, or otherwise, against the other arising out of or related to this Agreement in accordance with the requirements of the method of binding dispute resolution selected in this Agreement within the period specified by applicable law, but in any case not more than 10 years after the date of Substantial Completion of the Work. The Owner and Architect waive all claims and causes of action not commenced in accordance with this Section 8.1.1.

8.1.2 To the extent damages are covered by property insurance, the Owner and Architect waive all rights against each other and against the contractors, consultants, agents and employees of the other for damages, except such rights as they may have to the proceeds of such insurance as set forth in AIA Document A201-2007, General Conditions of the Contract for Construction. The Owner or the Architect, as appropriate, shall require of the contractors, consultants, agents and employees of any of them similar waivers in favor of the other parties enumerated herein.

8.1.3 The Architect and Owner waive consequential damages for claims, disputes or other matters in question arising out of or relating to this Agreement. This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination of this Agreement, except as specifically provided in Section 9.7.

8.2 MEDIATION

8.2.1 Any claim, dispute or other matter in question arising out of or related to this Agreement shall be subject to mediation as a condition precedent to binding dispute resolution. If such matter relates to or is the subject of a lien arising out of the Architect's services, the Architect may proceed in accordance with applicable law to comply with the lien notice or filing deadlines prior to resolution of the matter by mediation or by binding dispute resolution.

8.2.2 The Owner and Architect shall endeavor to resolve claims, disputes and other matters in question between them by mediation which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Mediation Procedures in effect on the date of the Agreement. A request for mediation shall be made in writing, delivered to the other party to the Agreement, and filed with the person or entity administering the mediation. The request may be made concurrently with the filing of a complaint or other appropriate demand for binding dispute resolution but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration proceeding is stayed pursuant to this section, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings.

8.2.3 The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

8.2.4 If the parties do not resolve a dispute through mediation pursuant to this Section 8.2, the method of binding dispute resolution shall be the following:

(Check the appropriate box. If the Owner and Architect do not select a method of binding dispute resolution below, or do not subsequently agree in writing to a binding dispute resolution method other than litigation, the dispute will be resolved in a court of competent jurisdiction.)

[X] Arbitration pursuant to Section 8.3 of this Agreement

Litigation in a court of competent jurisdiction

Other (Specify)

8.3 ARBITRATION

8.3.1 If the parties have selected arbitration as the method for binding dispute resolution in this Agreement, any claim, dispute or other matter in question arising out of or related to this Agreement subject to, but not resolved by, mediation shall be subject to arbitration which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Arbitration Rules in effect on the date of this Agreement. A demand for arbitration shall be made in writing, delivered to the other party to this Agreement, and filed with the person or entity administering the arbitration.

8.3.1.1 A demand for arbitration shall be made no earlier than concurrently with the filing of a request for mediation, but in no event shall it be made after the date when the institution of legal or equitable proceedings based on the claim, dispute or other matter in question would be barred by the applicable statute of limitations. For statute of limitations purposes, receipt of a written demand for arbitration by the person or entity administering the arbitration shall constitute the institution of legal or equitable proceedings based on the claim, dispute or other matter in question.

8.3.2 The foregoing agreement to arbitrate and other agreements to arbitrate with an additional person or entity duly consented to by parties to this Agreement shall be specifically enforceable in accordance with applicable law in any court having jurisdiction thereof.

8.3.3 The award rendered by the arbitrator(s) shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

8.3.4 CONSOLIDATION OR JOINDER

8.3.4.1 Either party, at its sole discretion, may consolidate an arbitration conducted under this Agreement with any other arbitration to which it is a party provided that (1) the arbitration agreement governing the other arbitration permits consolidation; (2) the arbitrations to be consolidated substantially involve common questions of law or fact; and (3) the arbitrations employ materially similar procedural rules and methods for selecting arbitrator(s).

8.3.4.2 Either party, at its sole discretion, may include by joinder persons or entities substantially involved in a common question of law or fact whose presence is required if complete relief is to be accorded in arbitration, provided that the party sought to be joined consents in writing to such joinder. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of any claim, dispute or other matter in question not described in the written consent.

8.3.4.3 The Owner and Architect grant to any person or entity made a party to an arbitration conducted under this Section 8.3, whether by joinder or consolidation, the same rights of joinder and consolidation as the Owner and Architect under this Agreement.

ARTICLE 9 TERMINATION OR SUSPENSION

9.1 If the Owner fails to make payments to the Architect in accordance with this Agreement, such failure shall be considered substantial nonperformance and cause for termination or, at the Architect's option, cause for suspension of performance of services under this Agreement. If the Architect elects to suspend services, the Architect shall give seven days' written notice to the Owner before suspending services. In the event of a suspension of services, the Architect shall have no liability to the Owner for delay or damage caused the Owner because of such suspension of services. Before resuming services, the Architect shall be paid all sums due prior to suspension and any expenses incurred in the interruption and resumption of the Architect's services. The Architect's fees for the remaining services and the time schedules shall be equitably adjusted.

9.2 If the Owner suspends the Project, the Architect shall be compensated for services performed prior to notice of such suspension. When the Project is resumed, the Architect shall be compensated for expenses incurred in the interruption and resumption of the Architect's services. The Architect's fees for the remaining services and the time schedules shall be equitably adjusted.

9.3 If the Owner suspends the Project for more than 90 cumulative days for reasons other than the fault of the Architect, the Architect may terminate this Agreement by giving not less than seven days' written notice.

9.4 Either party may terminate this Agreement upon not less than seven days' written notice should the other party fail substantially to perform in accordance with the terms of this Agreement through no fault of the party initiating the termination.

9.5 The Owner may terminate this Agreement upon not less than seven days' written notice to the Architect for the Owner's convenience and without cause.

9.6 In the event of termination not the fault of the Architect, the Architect shall be compensated for services performed prior to termination, together with Reimbursable Expenses then due and all Termination Expenses as defined in Section 9.7.

9.7 Termination Expenses are in addition to compensation for the Architect's services and include expenses directly attributable to termination for which the Architect is not otherwise compensated, plus an amount for the Architect's anticipated profit on the value of the services not performed by the Architect.

9.8 The Owner's rights to use the Architect's Instruments of Service in the event of a termination of this Agreement are set forth in Article 7 and Section 11.9.

ARTICLE 10 MISCELLANEOUS PROVISIONS

10.1 This Agreement shall be governed by the law of the place where the Project is located, except that if the parties have selected arbitration as the method of binding dispute resolution, the Federal Arbitration Act shall govern Section 8.3.

10.2 Terms in this Agreement shall have the same meaning as those in AIA Document A201–2007, General Conditions of the Contract for Construction.

10.3 The Owner and Architect, respectively, bind themselves, their agents, successors, assigns and legal representatives to this Agreement. Neither the Owner nor the Architect shall assign this Agreement without the written consent of the other, except that the Owner may assign this Agreement to a lender providing financing for the Project if the lender agrees to assume the Owner's rights and obligations under this Agreement.

10.4 If the Owner requests the Architect to execute certificates, the proposed language of such certificates shall be submitted to the Architect for review at least 14 days prior to the requested dates of execution. If the Owner requests the Architect to execute consents reasonably required to facilitate assignment to a lender, the Architect shall execute all such consents that are consistent with this Agreement, provided the proposed consent is submitted to the Architect for review at least 14 days prior to execution. The Architect shall not be required to execute certificates or consents that would require knowledge, services or responsibilities beyond the scope of this Agreement.

10.5 Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either the Owner or Architect.

10.6 Unless otherwise required in this Agreement, the Architect shall have no responsibility for the discovery, presence, handling, removal or disposal of, or exposure of persons to, hazardous materials or toxic substances in any form at the Project site.

10.7 The Architect shall have the right to include photographic or artistic representations of the design of the Project among the Architect's promotional and professional materials. The Architect shall be given reasonable access to the completed Project to make such representations. However, the Architect's materials shall not include the Owner's confidential or proprietary information if the Owner has previously advised the Architect in writing of the specific information considered by the Owner to be confidential or proprietary. The Owner shall provide professional credit for the Architect in the Owner's promotional materials for the Project.

10.8 If the Architect or Owner receives information specifically designated by the other party as "confidential" or "business proprietary," the receiving party shall keep such information strictly confidential and shall not disclose it to any other person except to (1) its employees, (2) those who need to know the content of such information in order to perform

services or construction solely and exclusively for the Project, or (3) its consultants and contractors whose contracts include similar restrictions on the use of confidential information.

ARTICLE 11 COMPENSATION

11.1 For the Architect's Basic Services described under Article 3, the Owner shall compensate the Architect as follows: (Insert amount of, or basis for, compensation.)

11.2 For Additional Services designated in Section 4.1, the Owner shall compensate the Architect as follows: (Insert amount of, or basis for, compensation. If necessary, list specific services to which particular methods of compensation apply.)

11.3 For Additional Services that may arise during the course of the Project, including those under Section 4.3, the Owner shall compensate the Architect as follows: (Insert amount of, or basis for, compensation.)

11.4 Compensation for Additional Services of the Architect's consultants when not included in Section 11.2 or 11.3, shall be the amount invoiced to the Architect plus (), or as otherwise stated below:

11.5 Where compensation for Basic Services is based on a stipulated sum or percentage of the Cost of the Work, the compensation for each phase of services shall be as follows:

Schematic Design Phase		percent (%)
Design Development Phase		percent (%)
Construction Documents Phase		percent (%)
Bidding or Negotiation Phase		percent (%)
Construction Phase		percent (%)
Total Basic Compensation	one hundred	percent (100	%)

11.6 When compensation is based on a percentage of the Cost of the Work and any portions of the Project are deleted or otherwise not constructed, compensation for those portions of the Project shall be payable to the extent services are performed on those portions, in accordance with the schedule set forth in Section 11.5 based on (1) the lowest bona fide bid or negotiated proposal, or (2) if no such bid or proposal is received, the most recent estimate of the Cost of the Work for such portions of the Project. The Architect shall be entitled to compensation in accordance with this Agreement for all services performed whether or not the Construction Phase is commenced.

11.7 The hourly billing rates for services of the Architect and the Architect's consultants, if any, are set forth below. The rates shall be adjusted in accordance with the Architect's and Architect's consultants' normal review practices. (If applicable, attach an exhibit of hourly billing rates or insert them below.)

Employee or Category

Rate

11.8 COMPENSATION FOR REIMBURSABLE EXPENSES

11.8.1 Reimbursable Expenses are in addition to compensation for Basic and Additional Services and include expenses incurred by the Architect and the Architect's consultants directly related to the Project, as follows:

- .1 Transportation and authorized out-of-town travel and subsistence;
- .2 Long distance services, dedicated data and communication services, teleconferences, Project Web sites, and extranets;
- .3 Fees paid for securing approval of authorities having jurisdiction over the Project;
- .4 Printing, reproductions, plots, standard form documents;
- .5 Postage, handling and delivery;
- .6 Expense of overtime work requiring higher than regular rates, if authorized in advance by the Owner;
- .7 Renderings, models, mock-ups, professional photography, and presentation materials requested by the Owner;
- .8 Architect's Consultant's expense of professional liability insurance dedicated exclusively to this Project, or the expense of additional insurance coverage or limits if the Owner requests such insurance in excess of that normally carried by the Architect's consultants;
- .9 All taxes levied on professional services and on reimbursable expenses;
- .10 Site office expenses; and
- .11 Other similar Project-related expenditures.

11.8.2 For Reimbursable Expenses the compensation shall be the expenses incurred by the Architect and the Architect's consultants plus () of the expenses incurred.

11.9 COMPENSATION FOR USE OF ARCHITECT'S INSTRUMENTS OF SERVICE

If the Owner terminates the Architect for its convenience under Section 9.5, or the Architect terminates this Agreement under Section 9.3, the Owner shall pay a licensing fee as compensation for the Owner's continued use of the Architect's Instruments of Service solely for purposes of completing, using and maintaining the Project as follows:

11.10 PAYMENTS TO THE ARCHITECT

11.10.1 An initial payment of (\$) shall be made upon execution of this Agreement and is the minimum payment under this Agreement. It shall be credited to the Owner's account in the final invoice.

11.10.2 Unless otherwise agreed, payments for services shall be made monthly in proportion to services performed. Payments are due and payable upon presentation of the Architect's invoice. Amounts unpaid () days after the invoice date shall bear interest at the rate entered below, or in the absence thereof at the legal rate prevailing from time to time at the principal place of business of the Architect.
(Insert rate of monthly or annual interest agreed upon.)

per annum

11.10.3 The Owner shall not withhold amounts from the Architect's compensation to impose a penalty or liquidated damages on the Architect, or to offset sums requested by or paid to contractors for the cost of changes in the Work unless the Architect agrees or has been found liable for the amounts in a binding dispute resolution proceeding.

11.10.4 Records of Reimbursable Expenses, expenses pertaining to Additional Services, and services performed on the basis of hourly rates shall be available to the Owner at mutually convenient times.

ARTICLE 12 SPECIAL TERMS AND CONDITIONS

Special terms and conditions that modify this Agreement are as follows:

ARTICLE 13 SCOPE OF THE AGREEMENT

13.1 This Agreement represents the entire and integrated agreement between the Owner and the Architect and supersedes all prior negotiations, representations or agreements, either written or oral. This Agreement may be amended only by written instrument signed by both Owner and Architect.

13.2 This Agreement is comprised of the following documents listed below:

- .1 AIA Document B101™–2007, Standard Form Agreement Between Owner and Architect

.2 AIA Document E201™–2007, Digital Data Protocol Exhibit, if completed, or the following:

.3 Other documents:

(List other documents, if any, including Exhibit A, Initial Information, and additional scopes of service, if any, forming part of the Agreement.)

This Agreement entered into as of the day and year first written above.

OWNER

ARCHITECT

(Signature)

(Signature)

(Printed name and title)

(Printed name and title)

APPENDIX 16: BIBLIOGRAPHY

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APPENDIX 17: HISTORICAL ACKNOWLEDGEMENTS

The development of these guidelines and images is a collective effort by:

**The Dewees Architectural
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Dewees Island, South Carolina

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Landscape Arch./Planner:

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With the assistance of:

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May 2011

X DEWEES ISLAND VEGETATIVE MANAGEMENT PLAN

Updated 2/11/13

The Dewees Island Vegetative Management Plan is a resource for property owners and provides information on vegetation habitat management in community areas on Dewees Island by the Environmental Program Staff and POA Employees. Policy and procedures have been included from the Architecture and Environmental Guidelines August 2009, Wildlife Management Plan, Conservation Easement, and Land Plan. Community involvement and scientifically-based adaptive management are key components of this plan. Vegetation management on Dewees Island is considered “Natural Neat” which is defined as showing care in execution in accordance with nature instead of “Park” which is defined as a protected area, in its natural or semi-natural state or planted and set aside for human recreation or for the protection of wildlife or “Landscaped” which is defined as any activity that modifies the visible features of an area of land, for example lawn and flower beds.

The vegetative habitat is managed on Dewees Island for several reasons. First, it is our legal obligation. The Dewees Island Architectural and Environmental Design Guidelines state that "natural vegetative habitat including trees, shrubs, grasses and wildflowers must be preserved", and the conservation easement with the state of South Carolina states that "no trees, shrubs or other vegetation of environmental significance shall be removed except in conformance with the comprehensive development plan."

Second, it is our philosophical commitment. Any vegetation management on Dewees must consider a number of factors including human esthetic needs, wildlife needs, and environmental quality needs. It is important to maintain the integrity of the Island's natural areas to:

- maintain vegetative diversity
- remove invasive exotic plants
- provide wildlife habitat
- maintain connecting natural corridors for wildlife movement
- improve water and air quality
- provide visual buffering between homes
- provide protection from storm winds, waves, and salt spray.

Finally, by integrating humans in balance and harmony with the existing natural systems it addresses our impact of living on Dewees. With each homeowner permitted to create no more than 7500 square feet of disturbance and accounting for the public facilities and roadways, less than five percent of this Island's 1200 acres will be impacted. Nonetheless, our activities springing from this five percent may have a profound effect on the other common lands and waters of the Island, and so we are obliged to adopt practices that will prevent or mitigate any negative results. While this plan does not directly address management practices on private property, its principles are symbiotic with those of the Dewees Island Architectural and Environmental Guidelines which are

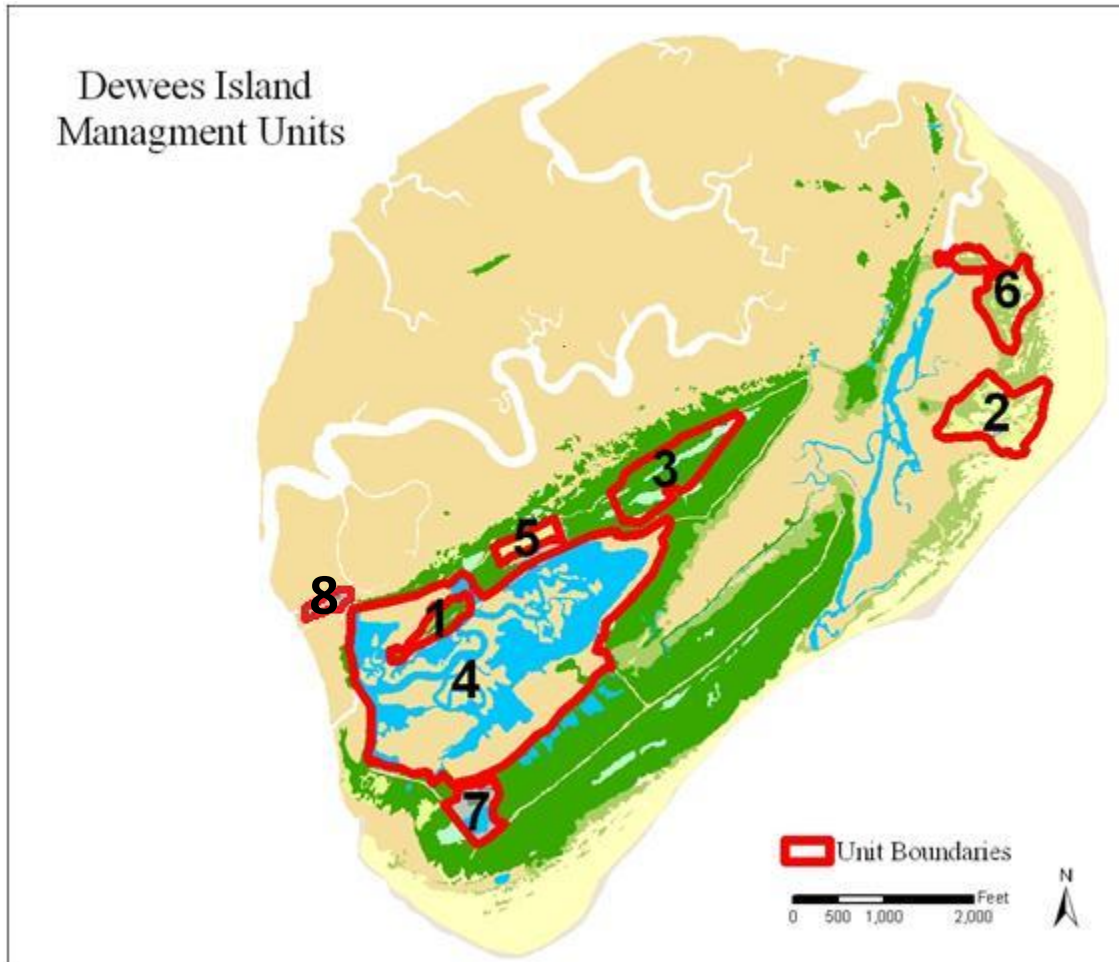
used in governing those practices. Environmental management of private property under these Guidelines continues to be under the purview of the Architectural Resource Board.

The majority of development on Dewees Island is found in the Maritime Forest; therefore the main focus of the Vegetative Management Plan will be on the vegetative habitat management of that area. The following are the major considerations employed with the vegetation management in the Maritime Forest whether it is on community or private property:

- Paths and viewing areas are cut at an angle to the ocean; this greatly reduces the amount of salt spray entering the forest. Vegetation growing in the Maritime Forest cannot thrive if exposed to constant salt spray.
- By allowing for a thick canopy of trees, undergrowth is naturally shaded out so that a clearer ground level for walking and wildlife viewing develops.
- Removing too many trees or shrubs from a site will encourage the growth of more trees, shrubs, and brambles, thus requiring more frequent cutting, and the cycle continues.
- Trimming vegetation as a hedge along roadways limits wildlife movement and viewing.
- It is very important to maintain a shrub and sapling layer in the Maritime Forest. This level in the canopy absorbs wave energy during hurricane tidal surges thus reducing the amount of damage to the island.
- Dead trees and limbs provide crucial habitat for many species of wildlife. Thus, dead trees should not be removed unless they endanger the safety of people or property. Dead limbs on live trees may, however, be removed to improve the health and appearance of the tree.
- Mowing is limited to roadways, paths, and utility areas. This maintains an open area but allows for the growth of wildflowers and grasses which provide important wildlife habitat.
- Shrubs along wetlands can be pruned to allow views or walking paths to the edge, but vegetation is not removed if it will leave large openings in the buffer.
- A buffer of at least 5 feet is to be maintained between roadways and wetlands to prevent channels for unfiltered run off.
- Vegetation type and growth rate/pattern is considered when trimming for views.
- If pine trees are to be removed slash pine is to be kept over loblolly pine. Slash pine is not as common.
- Invasive, exotic plants threaten the biodiversity of the maritime forest and must be removed and monitored.

- Distinct habitat types in varying stages of succession exist in the area between the front beaches and the inland salt marshes of Dewees Island. Successional habitat types can be managed for.
- Geology and current environmental influences account for the characteristic pattern of vegetation.

The Vegetative Management Plan divides the island into management units and provides specifics on the vegetative habitat management for that area. Various initiatives outlined in this plan are achievable within the current budget, while others will require additional funding from future budgets.



Management Unit 1 : Chapel Pond

Management Unit 2 : Sweetgrass Fields

Management Unit 3 : Wildlife Management Area

Management Unit 4 : Impoundment

Management Unit 5 : Public Works

Management Unit 6 : Six Pipes

Management Unit 7 : Huyler House

Management Unit 8 : Landings Building

Roadside Management

Appendix 1 : Vegetation of Concern

Appendix 2 : Sweet Grass Harvest Map

Appendix 3 : Impoundment Management

Appendix 4 : Saline Tidal Wetlands

Appendix 5 : Lawn Alternatives for Dewees Island

Appendix 6 : Wildlife Plants for Dewees Island

Unit 1: Chapel Pond



Goal(s):

- Maintain road access for utilities and passive recreation.
- Maintain maritime forest diversity.

Actions needed:

- Trim encroaching path vegetation as needed to allow access by a golf cart on the first half of the trail and by foot traffic south of the wooden bridge.
- Trim to allow canopy growth instead of hedge.
- Monitor trail access.
- Monitor Chinese Tallow and treat seedlings/saplings. If needed treat wetlands for Chinese Tallow seedlings every 2-3 years either by chemical application; foliar spraying or hand pulling.

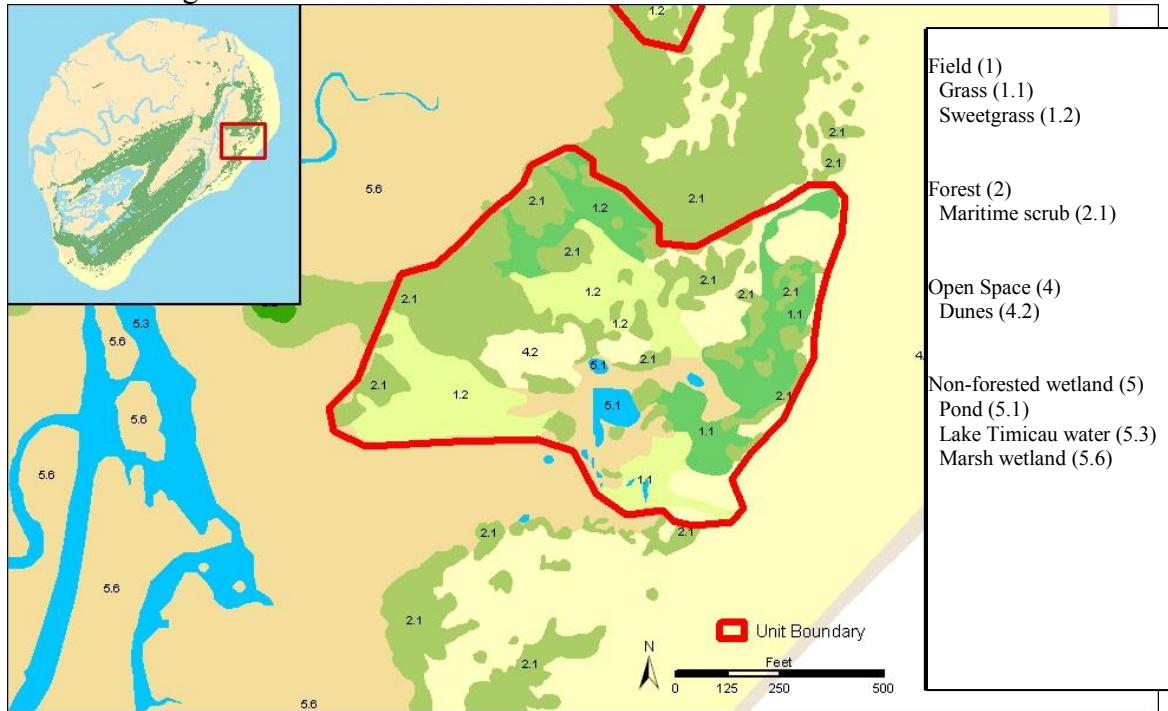
Comments:

- Tallow treated fall 2009; monitoring of treatment success needed.
- Tallow treatment must be budgeted for.
- A bench/swing under the live oak at end of path would provide a place to relax and view the impoundment.

Unresolved Issues:

- Can a windmill be used to power wells and aerator?

Unit 2: Sweetgrass Fields



Goal(s):

- Monitor succession on East end of island.
- Locate additional areas to plant sweet grass.

Actions needed:

- Monitor for invasive plants such as tallow, salt cedar, and pampas grass (Appendix 1).
- Monitor deer browse.

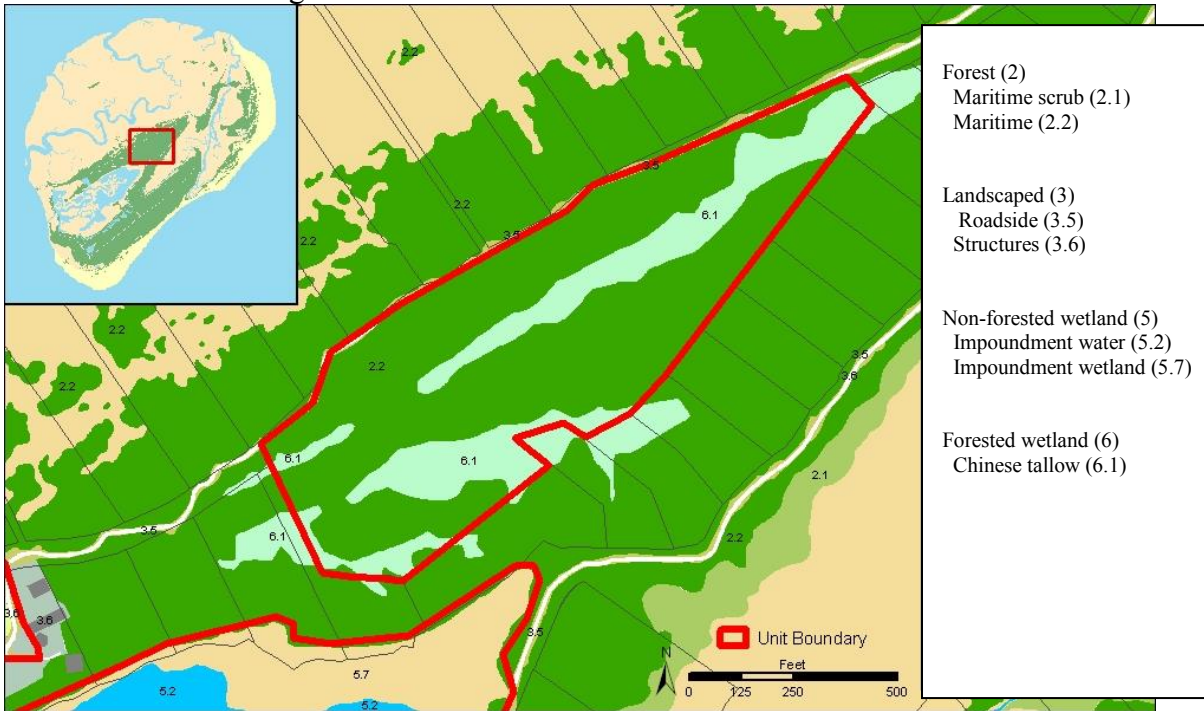
Comments:

- This is a quality wildlife area that has limited access and appears to be slowly converting to maritime forest.
- Local basket makers harvest sweet grass May – August.
- Sweet grass seeds are collected late November by basket makers (Appendix 2).

Unresolved Issues:

- Should the sweet grass fields be considered for habitat restoration or allow for succession? Overtime natural succession will change this habitat from grasslands into a maritime forest.

Unit 3: Wildlife Management Area



Goal(s):

- Maintain freshwater wetlands for migratory and resident bird species.
- Maintain forest species diversity.

Actions needed:

- Treat wetlands for Chinese Tallow seedlings every 2-3 years either by chemical application; foliar spraying or hand pulling.
- Remove *Sesbania sp.* plants each spring/summer by hand pulling.
- Remove Japanese Honeysuckle, *Lonicera japonica*, by hand pulling and/or applying chemical by foliar spraying.
- Monitor/repair wood duck boxes yearly.
- Monitor deer browse on vegetation.
- Laurel Wilt has been detected; monitor for disease spread and resistance.

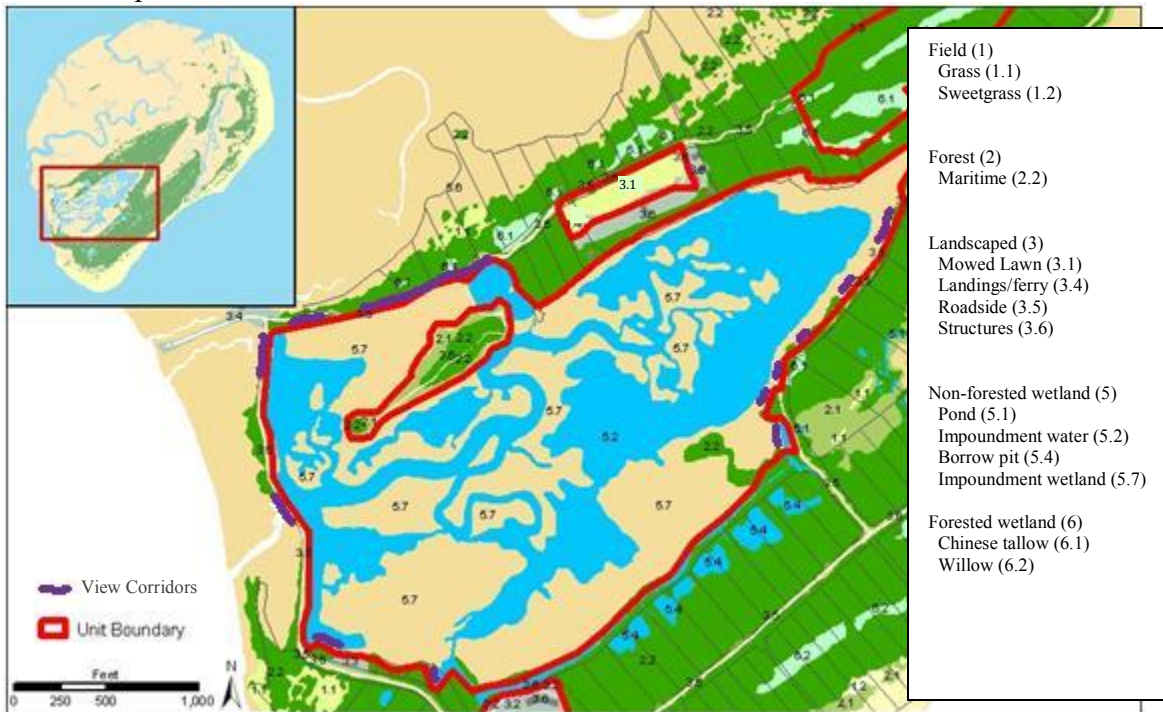
Comments:

- This is a Globally Threatened area due to development on barrier islands. Habitat types include Maritime Forest on old dunes and Freshwater Wetlands in swales between old dunes. Dominate plants in this area include Live Oak, Red Bay, Loblolly & Slash Pine, Palmetto, Willow, and False Nettle.
- Chinese Tallow is a major concern in this area.
- Fall 2009 & 2011 tallow treatment; monitor treatment success.
- Tallow treatment must be budgeted for.

Unresolved Issues:

- What should be done about adjacent private property with untreated tallow- how to keep it from spreading into the area to preserve this threatened habitat?

Unit 4: Impoundment



Goal(s):

- Maintain impoundment for migratory and resident bird species.
- Provide opportunities for passive recreation (fishing, bird watching, canoeing, kayaking).

Actions needed:

- Manage rice trunk according to monthly impoundment guidelines (Appendix 3).
- Manage Impoundment according to Saline Wetland guidelines (Appendix 4).
- Weekly water testing of dissolved oxygen, salinity, and temperature.
- Monitor for tallow trees and phragmites.
- Bi-weekly bird surveys.
- Maintain view corridors along road into Impoundment.

Comments:

-


Unresolved Issues:

- Low dissolved oxygen levels during the summer = potential fish kills.

Unit 5: Public Works



Goal(s):

- Maintain native wildflower field; indicated on map by 
- Offer a transplant area on the west end of the heilo pad to relocate Palmettos during home construction.
- Evaluate amount of mowed lawn on septic field (heilo pad).

Actions needed:

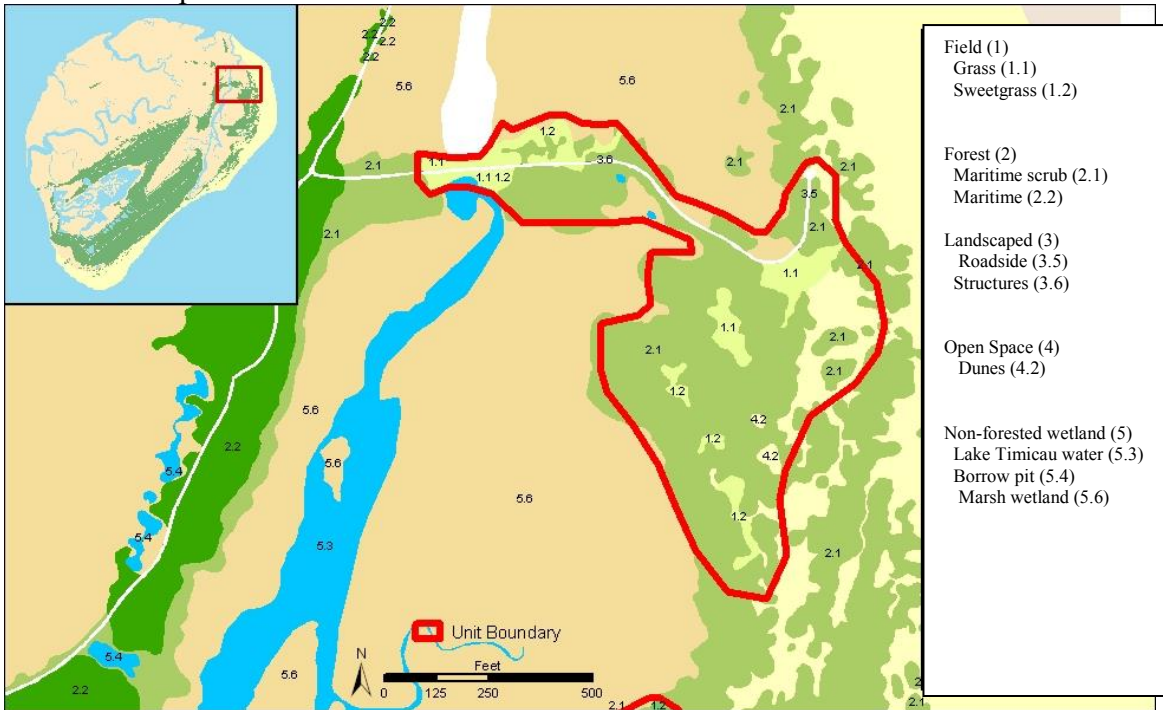
- Mow wildflower field each February to spread seed and keep weeds and saplings down.
- Prune trees/shrubs as needed to provide road access.
- Monitor for tallow trees.
- Plant trumpet creeper or other native flowering vines along fences (Appendix 6).
- Install plantings as indicated on the ARB approved landscape plan.

Comments:

- Septic field is all Bahia grass and not beneficial to wildlife but does provide nesting habitat for killdeer and open areas for recreation.
- Septic field can be divided into 3 distinct use areas; 1) emergency helicopter landing area, 2) vegetation teaching plots, 3) native tree and grass plantings.
- Only vegetation with shallow roots such as herbaceous plants may be planted on the heilo pad over the drain field.
- See Appendix 5 for lawn alternatives.

Unresolved Issues:

Unit 6: Six Pipes



Goal(s):

- Maintain field openings and allow succession on East end.
- Maintain access at six pipes for recreation.
- Maintain view corridors along the road into the marsh.

Actions needed:

- Regularly mow at six pipes during growing season.
- Monitor for Chinese tallow, salt cedar and pampas grass.
- Monitor deer browse.

Comments:



- Monitor areas for sweet grass harvesting (Appendix 1).

Unresolved Issues:


Unit 7: Huyler House



Goal(s):

- Evaluate amount of mowed lawn.
- Find alternative to mulch for landscaping.
- Install native plant lawn alternatives around Huyler House and Huyler House Pond; areas are indicated by 
- Maintain view corridors to Huyler pond (see arrows on map).
- Maintain tall grass/tree canopy area along south entrance. 

Actions needed:

- Perform routine maintenance on landscaped areas; pruning, weed control, etc. Use only organic methods for weed control.
- Only prune palmettos within pool area.
- Cut back view corridors into pond annually.
- Hand trim tree saplings out of tall grass/tree canopy area as needed; area indicated by 
- Mow tall grass/tree canopy area bi-annually in February or as needed.
- Monitor area for tallow trees and Japanese honeysuckle; treat as needed.
- Convert selected lawn areas into native plant areas.

Comments:

- The tall grass/tree canopy area provides a buffer between nesting alligators and people.
- Place mulching around Huyler House and Pool area in April after leaves from Live Oaks have dropped.
- See native plant lawn alternatives Appendix 5.

Unresolved Issues:

Unit 8: Landings Building



Goal(s):

- Maintain landscaped areas around Landings Building & under live oaks; pruning, weed control, etc.
- Provide a welcoming area for guests to the island.
- Find alternative for landscaping mulch.
- Use area as a teaching plot to showcase native trees and vegetation plantings.

Actions needed:

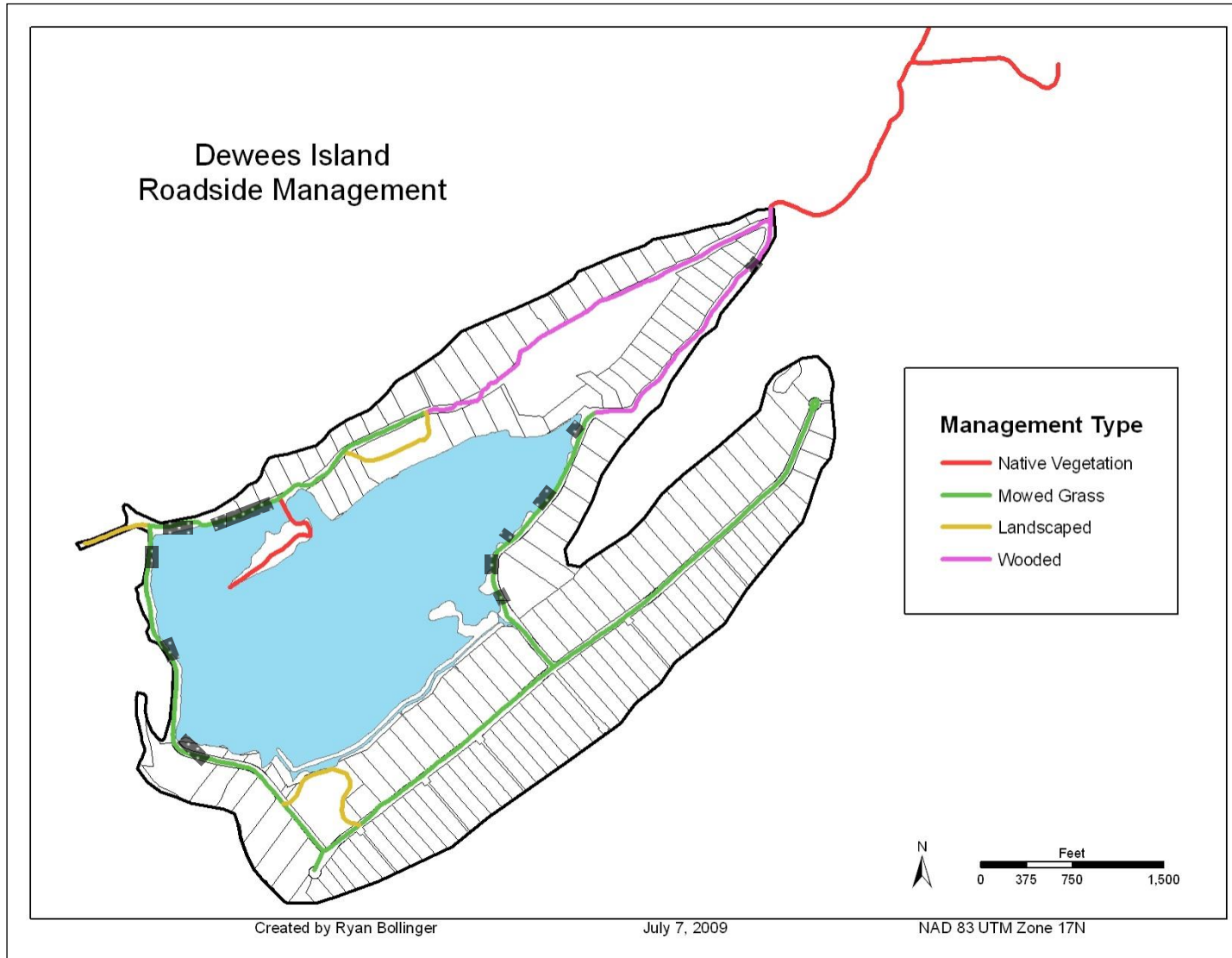
- Prune shrubs/trees as needed.
- Monitor area for Chinese Tallow tree as needed.
- Discourage weed growth in landscape areas.
- Label vegetation with identification signs.

Comments:

- Place mulch around Landing Building and Live Oak turtle area in April after oak tree leaves have dropped.

Unresolved Issues:

Roadside Management Map



Native Vegetation-

Vegetation is cut back to allow access along current road bed. Maintain current level of mowing. Natural road surface of sand; crushed shell may be added to reinforce washout areas. Overhead height maintained for small fire truck and ambulance.

Mowed Grass-

A mowed lawn borders the road in most areas; grass is mowed weekly or as needed. Overhead vegetation cut to provide access for large fire truck.

Landscaped-

Areas are a mix of mowed lawn, mulched areas, and natural areas. Roads are maintained to allow large fire truck access. Grass is mowed weekly or as needed.

Wooded-

Vegetation is cut back to allow access along current road bed. Maintain current levels of mowing. Overhead height maintained for large fire truck.

Dewees Island Roadside Management Notes:

Goal(s):

- Maintain access to fire hydrants along roads.
- Maintain current level of roadside mowing. Minor alterations may take place to showcase areas of aesthetic significance or protect areas of environmental importance.
- Clear out around large oak trees or other specimen trees which are growing within the POA right-of-way (30 feet from center) along Pelican Flight and Dewees Inlet.
- Maintain view corridors along roadways into Impoundment, Lake Timicau, and marsh.
- Only prune palmettos when fronds obstruct vehicle traffic along roads.
- All road surfaces maintained with crushed shell.

Actions needed:

- Trim shrub growth as needed along roadways to provide access. Trim shrubs to allow canopy growth instead of as a hedge.
- Trim view corridors as needed (1-3 times per year).
- Select specimen trees to showcase along Pelican Flight.

Comments:

- As money is available showcase trees could be planted along Pelican Flight. Trees would be different varieties with possibly a small sign indicating variety. Must find a reliable way to irrigate for 1st year.
- Larger view corridors into the impoundment are indicated on the map by ■■■
- Smaller view corridors are not indicated on the map due to size.
- Limited resources dictate schedule and level of palm frond removal and shrub pruning.

Unresolved Issues:

- Should mowing change along Dewees Inlet and Pelican Flight? Possibilities include mowing to a lawn height along one side of the road for pedestrian access and mow the other side of the road on a monthly/yearly/2-3 times a year schedule.
- Find alternative to pine straw for mulching.

Appendix 1: Vegetation of Concern: excluding Chinese Tallow (Popcorn tree)



Appendix 2: Sweet grass Harvest Map



Appendix 3: Impoundment Management

Manage tidal water flow in impoundment to maximize changing environmental conditions. Increase water flow through grant improvements and manage critical water conditions.

Below is a general summary of the monthly management goals and procedures for the impoundment. These are the same management practices which have been applied in the impoundment for the past several years but with more detail provided.

January

Maintain high water level using risers. Maintain water circulation by raising outside gate to allow fresh water to enter on high tides and flow out over risers on pipe.

Species young available for recruitment: Spot, Mullet, Flounder

February

Begin lowering water level using risers to promote widgeon grass germination . Expose mud flats and shallow water areas for wading and shore birds. Maintain water circulation by raising outside gate to allow fresh water to enter on high tides and flow out over risers on pipe. Monitor dying filamentous algae; if levels are high then flush impoundment water into Dewees Inlet.

Species young available for recruitment: Menhaden, Spot, Mullet, Flounder, Brown Shrimp

March

Begin raising water level mid-month using riser boards and by raising outside gate. This also begins species recruitment efforts. Monitor dying filamentous algae; if levels are high then flush impoundment water into Dewees Inlet.

Species young available for recruitment: Menhaden, Spot, Mullet, Flounder, Brown Shrimp

April

Continue to raise water level using riser boards. During the 4-5 days of above average tides the water levels will be raised and species recruited. Monitor dying filamentous algae; if levels are high then flush impoundment water into Dewees Inlet.

*This time of year is also peak for wading birds – shallow sheet water is best. By maintaining higher water levels throughout the year more area for wading birds will be an added benefit.

Species young available for recruitment: Menhaden, Spot, Mullet, Flounder, Atlantic Silversides

May

Water levels will be maintained at a high level during the recruitment management period.

Recruitment of species will entail increased water flow during the 4-5 days of above average tides.

Species young available for recruitment: Menhaden, Atlantic silversides, Silver Perch, Winter Trout, Blue Crab, White Shrimp

June

Water levels will be maintained at a high level during the recruitment management period.

Recruitment of species will take place during the 4-5 days of above average tides. Maximizing water circulation for increased dissolved oxygen is a priority.

Species young available for recruitment: Mummichogs, Bay Anchovies, Atlantic Silversides, Silver Perch, Spotted Seatrout, Winter Trout, Blue Crab, White Shrimp

July

Water levels will be maintained at a high level during the recruitment management period. Recruitment of species will entail increased water flow during an above average series of high tides. Maximizing water circulation for increased dissolved oxygen is a must.

Species young available for recruitment: Mummichogs, Bay Anchovies, Silver Perch, Spotted Seatrout

August

Water levels will be maintained at a high level during the recruitment of species with the 4-5 days of above average tides. Maximize water circulation for increased dissolved oxygen levels.

Species young available for recruitment: Mummichogs, Bay Anchovies, Silver Perch, Red Drum, Spotted Seatrout

September

Water levels will be maintained at a high level during the recruitment management period.

Recruitment of species will entail increased water flow during the 4-5 days of above average tides. Maximize water circulation for increased dissolved oxygen.

Species young available for recruitment: Bay Anchovies, Red Drum

October

Water levels will be maintained at a high level during the recruitment management period.

Recruitment of species will entail lowering water levels (using risers only) briefly in advance of an above average series of high tides. During the 4-5 days of above average tides the water levels will be raised and species recruited.

Species young available for recruitment: Red Drum

November

Maintain high water level to encourage waterfowl presences. By maintaining higher water levels new mud flats and shallow water areas for wading and shore birds will be incurred along old house road and chapel pond. Maintain water circulation by raising outside gate to allow fresh water to enter on high tides and flow out over risers on pipe.

December

Maintain high water level to encourage waterfowl presence. Higher water levels will expose new mud flats and shallow water areas for wading and shore birds. Maintain water circulation by raising outside gate to allow fresh water to enter on high tides and flow out over risers on pipe.

Appendix 4: SALINE TIDAL WETLANDS

From: *Management of South Atlantic Coastal Wetlands for Waterfowl and Other Wildlife*

Written by: R. Kenneth Williams, Robert D. Perry, Michael B. Prevost, Stephen E. Adair, Ph.D., S. Keith McKnight, Ph.D.

Brackish/saline wetlands occur where salinity averages 20-30 ppt while saline wetlands occur where salinity averages 30-35 ppt. Water level and salinity manipulations of these habitat types are similar. Higher salinities in these marshes preclude growth of competing species such as cattail and giant cordgrass as well as desirable saltmarsh bullrush. Small stands of saltmarsh bullrush that persist may increase temporarily during seasons of abundant rainfall and accompanying lower salinity. However, the primary foods encouraged are widgeongrass and dwarf spikerush.

Typical Management Scenario for Brackish/Saline and Saline tidal Wetlands

1. Gradually lower water levels during late February to early March by removing one riser board each week. Water levels should be below bed level by late March.
2. Circulate tidewater into and out of the wetland while maintaining water levels at 4-6 inches below the marsh bed through April to allow marsh sediments to consolidate.

Management Note

Shorebirds, Wading Birds, & Fish

For managers also desiring to improve habitat for shorebirds, wading birds, and marine fish and invertebrates (i.e., crabs and shrimp), partial drawdowns of saline marshes are often more effective than complete drawdowns. Partial drawdowns are accomplished by lowering water levels to 2-4 inches during late February and maintaining this level through May. March to May is the peak shorebird migration period as well as the beginning of the wading bird nesting season. The sheetwater across the wetland also will provide quality habitat for shrimp, crabs, and juvenile fish. Saltmarsh bulrush and dwarf spikerush will germinate at the exposed higher elevations while widgeongrass will germinate in the sheetwater. Circulate tidewater during partial drawdowns and do not allow bed to dry or widgeongrass production will be reduced. Beginning in June, add 4-6 inches of tidewater twice monthly until mid-October and then gradually lower water levels to 10-15 inches by December. After 3-5 years of partial drawdowns in brackish marshes, a complete drawdown may be necessary to consolidate sediments.

3. Flood during May with 6-8 inches of tidewater to promote growth of widgeongrass, dwarf spikerush, and muskgrass.
4. Continue adding 4-6 inches of tidewater twice monthly until mid-October.
5. In early November, drawdown by removing one riser board each week for an average depth of 10-15 inches by early December. Lowering water levels to 10-15 inches will allow waterfowl access to food plants' foliage and seeds. Various riser board widths should be available at each trunk to effectively lower water levels to the desired depth.

Management Notes

Sea Purslane

Extended spring drawdowns of high salinity marshes can encourage extensive stands of sea purslane on mud flats. In such instances, saturated soils should be maintained until sea purslane has matured before flooding for widgeongrass and dwarf spikerush. Flooding as late as August or September can produce good crops of widgeongrass and dwarf spikerush while maintaining sea purslane production.

Although sea purslane can sometimes be grown in brackish marshes, its greatest management potential is in saline marshes. Sea purslane is the only seed-producing plant stimulated by drawdown of saline marshes. Optimum growth has occurred on organic soils, whereas attempts to establish sea purslane on heavy clay soils have been unsuccessful due to acid soil or cat clay conditions. Management for sea purslane during successive growing seasons may result in increased growth of competing species such as saltmarsh asters, glassworts, saltmarsh fleabane, saltgrass, giant cordgrass, and smooth cordgrass. Management experience suggests that delaying drawdown until late spring (May to early June) retards growth of competing plants while allowing excellent sea purslane production. After several years of drawdowns for sea purslane, flood the wetland through a growing season to control competing vegetation and to promote growth of widgeongrass. Another option involves early spring drawdown for sea purslane growth, followed by late summer or fall flooding for widgeongrass production. Techniques involving rotational and multispecies management will maintain productivity and diversity in saline marshes.

Widgeongrass

Salt marshes with salinity greater than 30 ppt are managed for widgeongrass through techniques similar to those employed in brackish marshes. Although widgeongrass will tolerate sea water salinities (>35 ppt), growth and seed production are often reduced. The best growth of widgeongrass usually occurs within a salinity range of 10-20 ppt. Successful widgeongrass production requires flooding in early spring, when tidewater salinity is lower and adjusting trunks to hold rainfall to lower salinity.

In addition to limitations of high salinity, other factors including unstable soils and turbidity make saline marshes difficult to manage for widgeongrass. Properly timed drawdowns are important to consolidate soils to reduce both turbidity and uprooting of widgeongrass stands by wave action.

Gulf Coast Muskgrass

Gulf Coast muskgrass grows well in saline marshes with soft, organic sediments. Compared to widgeongrass, muskgrass has increased ability to tolerate high salinity, ability to withstand wave action and turbidity, and ability to compete with filamentous algae. Large scale management of Gulf Coast muskgrass is limited by a lack of information concerning growth requirements.

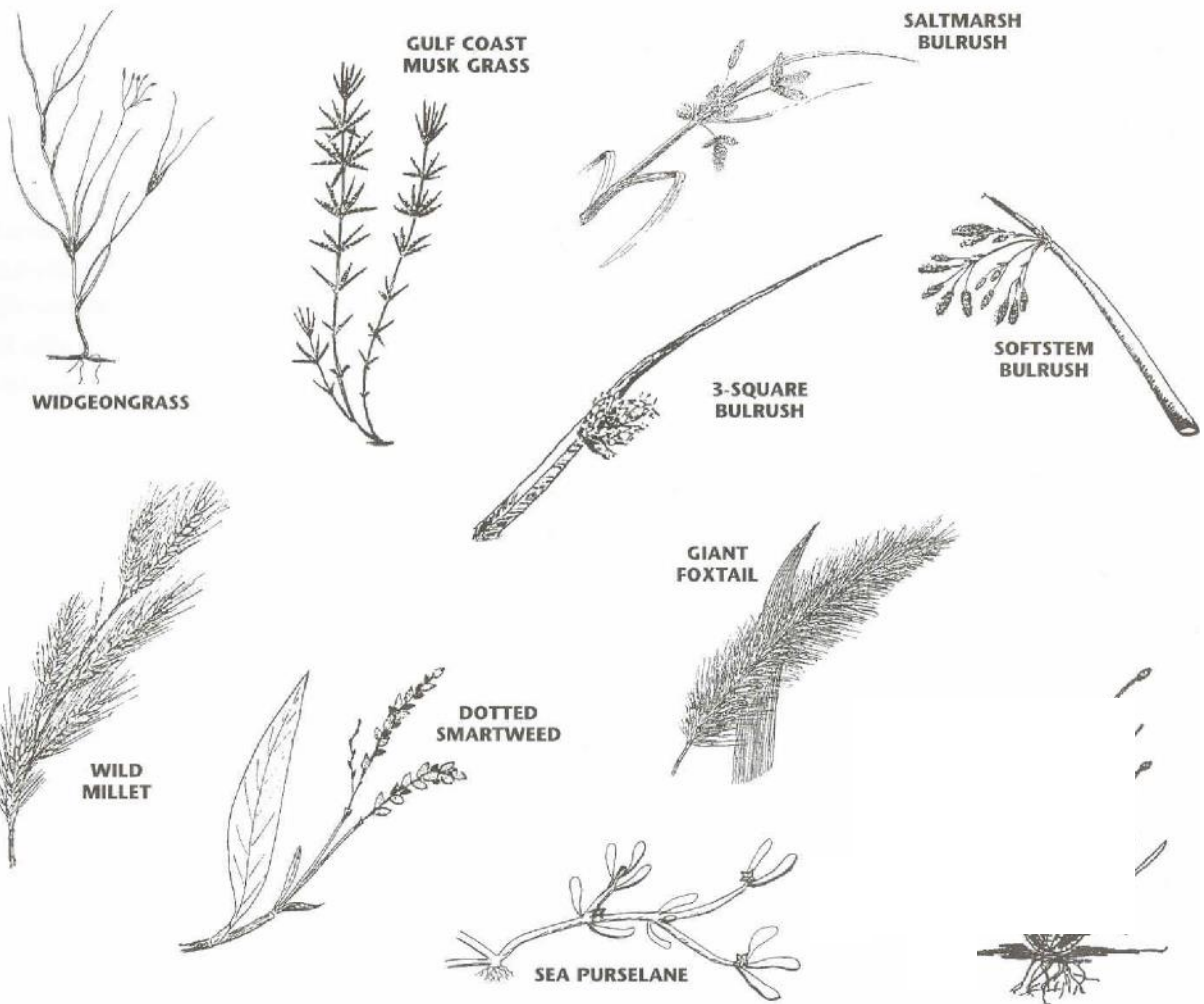
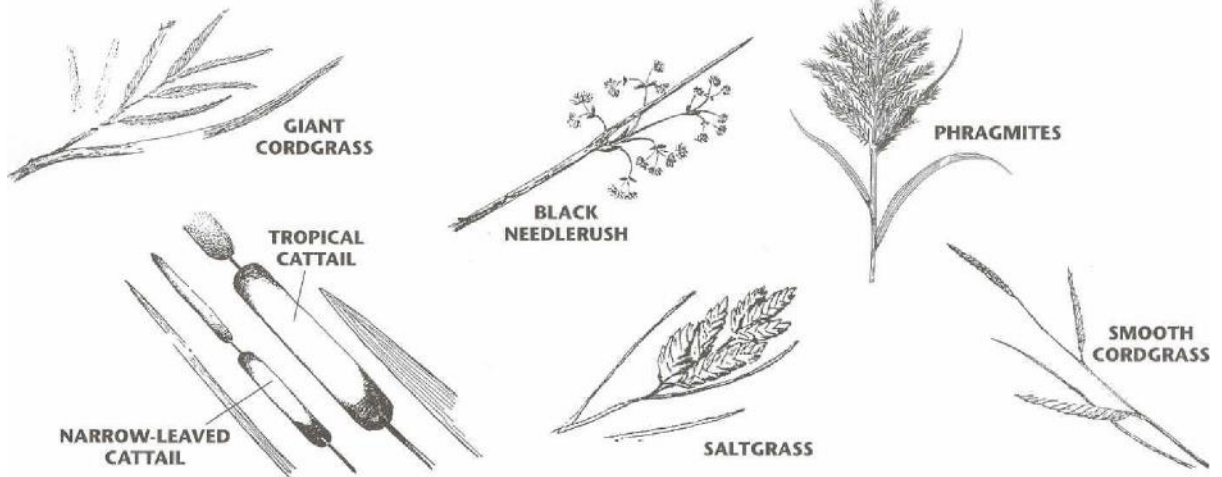
Banana Waterlily

A specialized situation in some semi-permanently flooded wetlands (salinity <5 ppt) is management for banana waterlily. During periods of low salinity, banana waterlily temporarily occurs in brackish marshes managed for other species; however, it is most successfully managed for in saltmarsh creek channels and sloughs with soft mud soils and alkaline waters. Desirable submersed aquatics commonly growing in association with banana waterlily include sago pondweed, bushy pondweed, and muskgrass. As banana waterlily rootstocks can survive occasional inundation with saline water, competing vegetation such as tropical cattail and bullwhip bulrush may be controlled by periodic flooding with high salinity water.

Control of Undesirable Vegetation

Major species of competing vegetation in higher salinity marshes are black needlerush and smooth cordgrass. Black needlerush can be controlled by continuous flooding (12-24 inches) for several growing seasons, with reduction determined by depth of flooding. However, with elevated water levels smooth cordgrass can increase at higher elevations. Complete drawdown for an entire growing season can control smooth cordgrass. Prolonged drawdown may temporarily decrease soil pH limiting desirable plant growth.

SALTWATER TARGET SPECIES



Appendix 5: Lawn Alternatives for Dewees Island

Reducing the amount of lawn on Dewees Island has several benefits which include:

- Saves time and energy on lawn maintenance.
- Reduction in air and noise pollution caused by gas mowers.
- Biodiversity; varied plantings offer shelter and feeding opportunities for wildlife.

The following plants are native to the coastal plain of South Carolina and once established require once yearly mowing for maintenance.



**Marsh Hay,
Saltmeadow Cordgrass**
Spartina patens
Possible weed seed free
mulch for septic field at
Public Works
Height: 1-4'



Beach Sunflower
Helianthus debilis
Height: 2-4 '
Spread: 2-4'



Railroad Vine
Ipomoea pes-caprae
Evergreen perennial
Flowers May through
November
Height: 2 inches
Spread: up to 100 feet



Panic Grass
Panicum amarum
Height: 4-8'
Clump forming



Sweetgrass
Muhlenbergia filipes
Height: 3-5'
Spread: 2-3'



Sea Oats
Uniola paniculata
Height: 3-6'



Pinebarren Frostweed
 (Pinebarren Sunrose,
 Rockrose)
Helianthemum
corymbosum
 Height: 8 inches
 Spread: 2 feet



Carolina Jasmine
Gelsemium
sempervirens
 Height: 3 feet
 Spread: 20 feet



Frogfruit
Phyla nodiflora
 Height: 1-6 inches
 Spread: 2 feet



Coral Honeysuckle
Lonicera
sempervirens



Blue-eyed Grass
Sisyrinchium
angustifolium
 Height: 1-2 feet
 Spread: 1-2 feet



Lyre-leaf sage
Salvia lyrata
 Height: 1-2 feet
 Spread: 1-2 feet

Appendix 6: Wildlife Plants for Dewees Island

Wildlife values are listed for common plants found on Dewees Island. Values are defined as follows; fruit - eaten by mammals and birds; nesting – material birds utilize for nest building; host – plant is eaten by butterfly caterpillar; seeds – eaten by mammals and birds; cover – provides habitat during the winter; nectar – provides food for butterflies, bees and hummingbirds.

Common Name	Scientific Name	Wildlife Value
<u>Dry Sun</u>		
<u>Trees:</u>		
Hackberry *	<i>Celtis Laevigata</i>	Fruit, nesting, host
Pines (Longleaf, Loblolly, Slash)	<i>Pinus palustris, P. taeda, elliotii</i>	Seeds
Oaks (Scarlet, S.Red, Laurel, Willow, Live)	<i>Quercus coccinea, Q. falcate, Q. laurifolia, Q. phellos, Q. virginica</i>	Nuts, buds
Cabbage Palmetto	<i>Sabal palmetto</i>	Fruit
Hawthorn	<i>Crataegus marshallii & C. uniflora</i>	Fruit, cover, seeds, nesting
Red Cedar *	<i>Juniperus virginiana</i>	Fruit, cover, nesting
Hercules Club	<i>Xanthoxylum clavaherculis</i>	Nectar, host
<u>Shrubs:</u>		
Groundsel	<i>Baccharis halmifolia</i>	Nectar
Cherry Laurel	<i>Prunus caroliniana</i>	Nectar, fruit
Beauty-berry	<i>Callicarpa americana</i>	Fruit
Rock-rose	<i>Helianthemum corymbosum</i>	Nectar
Yucca	<i>Yucca filamentosa, Y. gloriosa, Y. aloifolia</i>	Nectar, fruit
Yaupon Holly	<i>Ilex vomitoria</i>	Fruit
Wax Myrtle *	<i>Myrica cerifera</i>	Fruit, host , cover
Winged Sumac	<i>Rhus copallina</i>	Fruit, host
<u>Herbaceous:</u>		
Butterfly Weed	<i>Asclepias tuberosa</i>	Nectar, host
False Indigo	<i>Baptisia tinctoria</i>	Nectar
Tickseed Coreopsis,	<i>Coreopsis angustifolia, C. falcate, C. helianthoides, C. lanceolata, C. major</i>	Nectar, seeds
Mistflower	<i>Eupatorium coelestinum</i>	Nectar
Woodland Sunflower	<i>Helianthus strumosus</i>	Seeds

Common Name	Scientific Name	Wildlife Value
Blazing Star	<i>Liatris graminifolia</i> , <i>L. spicata</i>	Nectar
Frog-fruits *	<i>Lippia nodiflora</i>	Host, nectar
Horse Mint	<i>Monarda punctata</i>	Nectar
Primrose	<i>Oenothera biennis</i> , <i>O. drummondii</i> , <i>O. humifusa</i> , <i>O. speciosa</i>	Nectar
Prickly Pear Cactus	<i>Opuntia humifusa</i> , <i>O. drummondii</i>	Fruit, nectar, seeds
Scarlet Sage, Lyre-leaved Sage	<i>Salvia coccinea</i> , <i>S. lyrata</i>	Nectar
Goldenrod	<i>Solidago rugosa</i> , <i>S. sempervirens</i>	Nectar, seeds
Trumpet Vine	<i>Campsis radicans</i>	Nectar
Yellow Jessamine	<i>Gelsemium sempervirens</i>	Nectar
Coral Honeysuckle	<i>Lonicera sempervirens</i>	Nectar
Virginia Creeper	<i>Parthenocissus quinquefolia</i>	Fall fruit
Passion Flower	<i>Passiflora incarnata</i>	Nectar, host
Wild grape	<i>Vitis munsoniana</i>	Summer fruit, cover
Poison Ivy	<i>Toxicodendron radicans</i>	Fruit, cover
Broomsedge	<i>Andropogon virginicus</i>	Seeds, cover
Sweetgrass	<i>Muhlenbergia filipes</i>	Seeds
Switch Grass	<i>Panicum virgatum</i>	Seeds, cover
Sea Oats	<i>Uniola paniculata</i>	Seeds

Dry Shade

Trees:

Pignut Hickory	<i>Carya glabra</i>	Nuts, sap, nesting
Red Buckeye	<i>Aesculus pavia</i>	Seeds, hummingbirds
Serviceberry,	<i>Amelanchier canadensis</i>	Fruit, nesting
Redbud	<i>Cercis canadensis</i>	Nectar, host, fruit
American Holly	<i>Ilex opaca</i>	Fruit, nesting, host
Southern Magnolia	<i>Magnolia grandiflora</i>	Seeds, nectar, cover
Red Bay	<i>Persea borbonia</i>	Fruit, host
Sassafras	<i>Sassafras albidum</i>	Fruit, host
Shrub Palmetto	<i>Sabal minor</i>	Cover, fruit, nectar, nesting

Common Name	Scientific Name	Wildlife Value
<u>Shrubs:</u>		
Winterberry	<i>Ilex verticillata</i>	Fruit, nectar
Saw Palmetto	<i>Serenoa repens</i>	Nectar, cover, fruit, host
Sparkleberry	<i>Vaccinium arboreum</i>	Fruit
Blue Haw	<i>Viburnum rufidulum</i>	Fruit, nectar
Virginia Sweetspire	<i>Itea virginica</i>	Nectar, cover
<u>Herbaceous:</u>		
Trailing Bluet	<i>Houstonia procumbens</i>	Nectar
Coral Bean	<i>Erythrina herbacea</i>	Nectar
Cross Vine	<i>Bignonia capreolata</i>	Nectar
Greenbrier	<i>Smilax auriculata</i>	Nectar, fruit, cover
Ebony Spleenwort	<i>Asplenium platyneuron</i>	Nesting
Christmas Fern	<i>Polystichum acrostichoides</i>	Nesting
<u>Moist - Wet Sun</u>		
<u>Trees:</u>		
Red Maple,	<i>Acer rubrum</i>	Fruit, sap, nesting
Ironwood	<i>Carpinus caroliniana</i>	Fruit, nesting
Tulip Poplar	<i>Liriodendron tulipifera</i>	Nectar, fruit, nesting
Bald Cypress	<i>Taxodium distichum</i>	Nesting
Dahoon Holly	<i>Ilex cassine</i>	Fruit, host
Sweetbay Magnolia	<i>Magnolia virginiana</i>	Nectar, fruit, host
<u>Shrubs:</u>		
Sweet Pepperbush *	<i>Clethra alnifolia</i>	Nectar
Elderberry	<i>Sambucus canadensis</i>	Fruit
Highbush Blueberry	<i>Vaccinium corymbosum</i>	Fruit
Southern Arrowwood	<i>Viburnum dentatum</i>	Fruit, nectar
<u>Herbaceous:</u>		
Begger Ticks	<i>Bidens laevis</i>	Nectar
Swamp Rose-mallow	<i>Hibiscus moscheutos</i>	Nectar
Blue Flag Iris	<i>Iris virginica</i>	Nectar, seeds
Seashore Marsh Mallow	<i>Kosteletzkya virginica</i>	Nectar
Broomsedge	<i>Andropogon glomeratus</i>	Seeds, cover

Moist – Wet Shade

Common Name

Scientific Name

Wildlife Value

Trees:

Black Gum	<i>Nyssa sylvatica</i>	Fruit, cover, nesting
Flowering Dogwood	<i>Cornus florida</i>	Fruit, host, nectar
Crabapple	<i>Malus angustifolia</i>	Fruit, cover, nesting

Shrubs:

Horse Sugar	<i>Symplocos tinctoria</i>	Seeds, nectar, host
Button Bush	<i>Cephalanthus occidentalis</i>	Nectar
Inkberry	<i>Ilex glabra</i>	Fruit

Herbaceous:

Leather Flower	<i>Clematis crispa</i>	Seeds, nectar
Cinnamon Fern	<i>Osmunda cinnamomea</i>	nesting

* Salt spray tolerant

