

ATTACHMENT "A" – TECHNICAL SPECIFICATIONS/SCOPE OF WORK

**SCOPE OF WORK
LANDSCAPE MAINTENANCE FOR AMELIA CONCOURSE MSBU
BID NUMBER NC14-008**

PART I. Amelia Concourse Landscape Maintenance Scope of Services.

The scope of services shall include intensive lawn and garden maintenance along Amelia Concourse from SR A1A to CR 107 for a distance of 3.8 miles. The median is irrigated with a mix of St. Augustine sod and landscape beds. The majority of the area along the outside of the road is not irrigated and has a mix of St. Augustine sod and Bahia. Select areas at subdivision entrances are irrigated with St. Augustine sod and landscape beds. The landscape and irrigation plans will be provided to bidders. The Phase 1 Plans start just south of SR A1A and end at the Amelia National entrance. The Phase 2 Plans start at the Amelia National Entrance and end at CR 107.

- 1.1 ROADWAY MOWING:** Turf will be mowed in intervals not to exceed once every seven (7) days, during the growing season (March 1 through November 30) and bi-weekly during the non-growing season (December 1 through February 28), and as otherwise needed to maintain a neat appearance or as stated on the bid summary form. Common Bermuda grass should be mowed at the 1.5 inch height; St. Augustine grass and Bahia grass should not be mowed lower than 3 inches and 3-4 inches is preferred. Mowing should not occur when grass is wet. Clumped grass should be distributed evenly either by removing or raking. Keep mower blades sharp. Never remove more than 1/3 of the blade at any one time. Clippings shall either be vacuumed or blown off all hard surfaces but never down storm water drains or into retention ponds.
- 1.2 POND AREA MOWING:** In addition to the roadway landscaping there are several stormwater management ponds that will require less frequent mowing and general maintenance. The contractor shall mow the grass on the pond sites once a month from April 1 to October 31 and every other month between November 1 and March 31 for a total of 9 times a year. The grass around the ponds is not irrigated. Bahia grass should not be mowed lower than 3 inches and 3-4 inches is preferred. Mowing should not occur when grass is wet. Clumped grass should be distributed evenly either by removing or raking. Keep mower blades sharp. Never remove more than 1/3 of the blade at any one time. Clippings shall either be vacuumed or blown off all hard surfaces but never down storm water drains or into retention ponds. The stormwater ponds are located as shown on the attached graphic and listed below.
 - 1.2.1 Amelia Concourse Subdivision Ponds
 - 1.2.2 Timber Lake Ponds
 - 1.2.3 Amelia National South Entrance Ponds
 - 1.2.4 The Lakes at Amelia Pond
- 1.3 EDGING:** The Contractor shall edge plant beds, walkways, along fence lines roadway edges and all asphalt and hard surfaces by mechanical means every

visit. Clippings shall either be vacuumed or blown off walks, roads and curbs, and material shall be removed and disposed of properly but never placed into retention ponds or down storm water drain systems.

- 1.4 **STRING TRIMMING:** The Contractor shall use a string trimmer around trees, fences, fire hydrants, buildings signs, etc., every visit. Care should be taken that trees and shrubs are not scarred and fences, buildings, signs, etc., are not damaged.
- 1.5 **TURF FERTIZATION:** The Contractor shall apply fertilizer according to a soil test analysis. Unless soil test indicates other needs: use 15-0-15 complete fertilizer with 30% slow release nitrogen. Nitrogen recommendations or lbs N per 1000 square feet per year: Bahia – 2-3lbs; St. Augustine – 3-4 lbs; Bermuda – 3-5 pounds per 1000 sq. ft per year. Suggested schedule: Fertilize starting in late March or early April, again in June with 15-0-15, a low N-high K and iron sulfate in summer. One last application in early Oct using high K again and moderate N. Applications of fertilizers should never occur when heavy rainfall is imminent.
- 1.6 **INSECTS IN TURF:** The Contractor is responsible for treatment of grass damaging insects on a preventative basis. An insecticide is to be applied to all turf areas, on an as needed basis to reduce or eliminate the population of chinch bugs, mole crickets, sod webworms, army worms, and grass loopers. The timing of these applications is at the discretion of the Contractor using current Integrated Pest Management (IPM) techniques such as proper identification, early detection and monitoring. Should the population of the above listed insects reach levels where any grass damage begins to occur; those areas of infestation will be retreated at the Contractor's expense.
- 1.7 **DISEASE IN TURF:** Turf damage by disease and fungus shall be chemically treated to maintain all turf in a healthy and attractive condition. Proper IPM (Integrated Pest Management) procedures should be followed: Identify Key Pest on Key Plants; use cultural, physical and mechanical methods in prevention and management in addition to chemical application on an as needed basis. Good sanitation methods such as cleaning lawn mower blades between jobs or bagging diseased grass blades should also be employed.
- 1.8 **WEED CONTROL IN TURF:** The Contractor shall apply as necessary according to environmental and seasonal conditions, chemicals to control weeds in turf. The best weed control is proper maintenance of turfgrass (mowing, irrigation and fertilization) as stated above. Care shall be taken not to apply herbicides on newly mowed turf or turf under stress. The Contractor shall have on staff a Certified Pest Control Operator who is licensed through the Florida DACS. This designation will prove proper licensing necessary to apply insecticides, fungicides, and herbicides to county property. The County is to be provided with copies of the Certified Pest Control Operator's license and proof of insurance. The Contractor shall provide all chemicals. Applications of all chemicals shall be performed by employee of Contractor and shall be covered by Contractor's Workman's Compensation Insurance.

PART 2: SHRUB, GROUNDCOVER, AND BED MAINTENANCE

- 2.1 PRUNING:** Plants and shrubs shall be pruned by the Contractor at the best time for flower bud development, foliage growth and as the health of the plant may require. Shrubs shall not be clipped into balled or boxed forms unless such is required by the design; they will be pruned in accordance with the intended function of the plant in its present location, and as often as needed to maintain health and appearance. Pruning is an art that must be performed under the supervision of a highly trained foreman. The Contractor shall remove non-hedge growth from hedges and shrubs, such as Spanish moss, vines and grasses. Prune plants in keeping with natural character of plants. Do not uniformly shear plants. The following pruning techniques are not allowed on trees or shrubs: topping, lion tailing, hat racking or heading. Use reduction cuts if height of plant is a concern. Pruning should be done to improve tree/shrub health, reduce risk of failure, control growth or enhance flowering. UF/IFAS Pruning Landscape Trees and Shrubs: <http://edis.ifas.ufl.edu/MG087>
- 2.2 ANNUALS:** The annuals in the planting beds shall be replaced 4 times a year as needed during seasonal changes.
- 2.3 FERTILIZATION:** All plant material shall be fertilized by the Contractor using the following schedule. A soil test should be taken to determine fertilization needs and soil pH. Unless soil test indicates other needs use a phosphorus amounts at 1-2 %. Nitrogen/potassium ratios should be 1:1 to 2:1. Apply minimal amount to achieve the desired effect. Established trees (more than three to five years since transplanting) do not need routine fertilization especially when located within turfgrass landscapes. To minimize leaching losses, broadcast N and K₂O in small increments throughout the growing season about 12 weeks (March, June, and September-October). Read and follow all directions on the fertilizer label. Standard fertilizer recommendations: <http://edis.ifas.ufl.edu/CN011>
- 2.4 INSECTS AND DISEASE CONTROL FOR PLANTS:** The Contractor is responsible for the treatment of insects and disease. The appropriate fungicide or insecticide will be applied in accordance with state and local regulations and as weather and environmental conditions permit. Inspect (scout and monitor) plants weekly. Chemical applications will be administered on an as needed basis. Proper IPM (Integrated Pest Management) procedures should be followed: identify key pest on key plants; use cultural, physical and mechanical methods in prevention and management in addition to chemical application on an as needed basis. Good sanitation methods should also be employed.
- 2.5 WEED CONTROL IN PLANTS BEDS:** The Contractor shall inspect and weed plant beds weekly for any weeds and errant grasses
- 2.5.1** Control weeds with use of herbicides, pre-emergent, and preferably, by proper manual removal of weeds and their root systems.
- 2.5.2** Remove noxious weeds common to the area from planting areas by mechanical or chemical means and dispose of properly.

- 2.5.3 Do not leave uprooted weeds in beds or along landscape.
- 2.5.4 Apply herbicide in accordance with manufacturers published instructions.
- 2.5.5 Do not apply herbicide when wind speeds are greater than 2 miles per hour. The Contractor shall provide all chemicals.
- 2.6 **MULCH:** The Contractor shall apply a 2-3" layer of mulch around all palms, shrubs, and groundcover and all other plant beds one time per year. Mulch should be applied just outside the rootball, never touching the trunk or stem of trees or shrubs. Pine products are first preference as they improve soil. Avoid using rock or lime products as these change the pH and compact the soil.
- 2.7 **TREES:** Utilize 10-0-8 with 6% Fe chelate, 6% Mg, 4% Mn, 40% slow release soluble N to be in sulfate form Sulfur coated urea for slow release No Phosphorous Late Winter: 0.3 pounds per inch prior to flush and 0.5 pounds per inch after flush; Summer: 0.5 pounds per inch; and Late Fall: 0.5 pounds per inch.
- 2.8 **EROSION:** Contractor will monitor all area's for potential erosion and will be responsible to correct each eroded area immediately.
- 2.9 **SIDEWALKS:** Contractor will on each visit insure sidewalks are clean and free of debris and sand.
- 2.10 **FENCES:** Fence along right-away to be maintained weed free.

PART 3: LITTER REMOVAL

- 3.1 Remove litter and dead vegetation from job site during regular weekly maintenance visits. Special precaution should be made for removal of plants with insect or disease infestations. Proper disposal of invasive or exotic insects or diseases must follow DEP or FDACS guidelines.
- 3.2 Remove all litter along fence line.

PART 4: IRRIGATION SYSTEM

- 4.1 Check irrigation system monthly for proper functioning, including start/stop times. Be sure rain sensor is in working order.
- 4.2 Program automatic programmable valve controllers for optimum watering of plant materials while maintaining water conservation practices. Adjust irrigation program to compensate for seasonal water requirements.
- 4.3 Repair damaged heads or laterals. Replace damaged irrigation components, which cannot be repaired, with new functioning components by same manufacturer, including the batteries where applicable. The Contractor shall not exceed \$150.00 per month without prior written approval from the County. Acceptable expenditures include replacement of damaged sprinkler heads, batteries, valve controllers, and laterals/riser. All expenditures shall be documented on monthly invoices.

- 4.4 Adjust the system for more frequent watering in very dry times or drought conditions. Start watering cycle so that watering ends by 6:00 AM on water cycle days. Properly water locations of new planting as necessary.

PART 5: SAFETY

- 5.1 Contractor will be responsible for safe conduct and use of equipment on job site at all times.

PART 6: MONTHLY MAINTENANCE SERVICE REPORTS

- 6.1 Monthly Maintenance Service Reports are to be signed by the Contractor and submitted to the Facilities Maintenance Department prior to the processing of the invoice for that month's Maintenance Service.

PART 7: REPLACEMENT OF TREES, SHRUBS, AND OTHER ITEMS

- 7.1 Replacement of Trees, Shrubs, and other items that are in need of replacement due to 3rd party damage and/or to correct problems by plant vegetation that obstructs the view and become a safety issue. The vendor must provide a Pass through Cost for this type of service and provide cost verification with breakdown of labor rates. No work is to be completed without prior written approval from the County.

REFERENCES:

Florida Green Industries Best Management Practices for Protection of Water Resources.
<http://turfpath.ifas.ufl.edu/turfgrass/pdf/BMPmanual.pdf>

(End of Technical Specification/Scope of Work)