

## **2.16 Landscape Design Guidelines Element Goals, Objectives and Policies 2010-2015 Campus Master Plan Update**

**GOAL 1: Create an exemplary and unique campus environment that promotes outdoor comfort, security, sustainability, and a regional “sense of place.” Create a rich and horticulturally diverse visual landscape exemplifying the unique composition of Central Florida's native environments, as well as the region’s historical and cultural tradition, and link these to educational opportunities.**

**OBJECTIVE 1.1: To develop and implement a Landscape Master Plan for the University of Central Florida campus by 2010.**

**POLICY 1.1.1:** UCF will reinforce the important landscape elements defined in the Master Plan by developing landscape themes supportive of educational, cultural and recreational programs designed to enhance the collegiate experience. This landscape will be characterized by:

- Creating shaded quads, plazas and common areas for student interaction and places for gathering and recreation; and by enhancing vehicular roadways with defining tree plantings, and with colorful shrub islands at decision points.
- Planting species that are indigenous to the natural plant communities of Central Florida, where appropriate to the particular situation, and recreating a semblance of the original pine flatwoods, scrub, sandhill and wetland ecosystems. These native plant areas are, by definition, areas where soil disturbance has been minimal, no turf is envisioned, and any irrigation is temporary rather than permanent. All introduced horticultural species are to be grouped by their similar soil and water requirements. Whether native or introduced, all installed plantings will be designed and installed to comprise multi-stratum, or “layered” landscapes, with plants forming canopy, subcanopy/shrub stratum, and ground cover layers.
- Encouraging a vertical growth structure that improves canopy tree resistance to hurricane force winds, and provides a continuous and contiguous canopy over all pedestrian pathways.
- Planting trees to highlight and identify various campus signatures or other landscape treatments, which shall be typically spaced at 25’ on center, and never more than 40’ on center.
- Limiting the use of exotic plants to exceptional landscape situations. Any non-invasive, exotic plants will be able to resist periods of drought and require little use of fertilizer and pesticides.

- Designating removal of non-native invasive plants (whether grasses, trees or shrubs) if such exotics are listed on the Exotic Pest Plant Council's list of "Florida's Most Invasive Species." Landscape & Natural Resources (LNR) will coordinate the removal of plants with the UCF Arboretum.
- Strictly limiting areas of turf grass to only functionally necessary locations and extent. In keeping with guidelines for the University of Florida IFAS Extension Service, and following the example of the City of Oviedo, no St. Augustine species or cultivar will be approved for installation. Existing St. Augustine is to be converted by incremental removal or by overseeding with Argentine Bahia, Bermuda, or Seashore Paspalum cultivars and selected legumes. All landscape plans associated with new construction are to use, preferentially, perennial groundcovers and shrubs to further reduce areas of high-input turf.
- Incorporating, to the greatest extent possible, Xeriscape and Integrated Pest Management principles and practices for landscape design and maintenance.
- Removal of invasive plant species within Conservation Easements, or previously permitted mitigation areas, will be reviewed and authorized by SJRWMD.

**POLICY 1.1.2:** The University will develop the campus landscape outside of the institutional zone (Campus Core) with the following criteria outlined and action items stated within a Landscape Master Plan:

- Plant a palette of primarily indigenous plant material selected for durability, beauty, and low maintenance requirements.
- Where appropriate, small groupings of three (3) to five (5) trees of like species should be used, and larger irregular groupings where space permits. These larger groves shall be underplanted with shrubs or groundcovers, so that mulch is concealed by healthy plant growth.
- Formal groupings of plants can be used to accentuate or establish unique areas of landscaping outside the institutional zone.
- Shrub masses will identify and celebrate special areas designated to support specific collegiate activities, and to enhance the pedestrian experience. Such shrub plantings will NOT be power-sheared during maintenance, but instead shall be hand-pruned to maintain desired size, structure, flowering, and plant health.

**POLICY 1.1.3:** The University will develop a “signature” landscape treatment for all of the campus entrances, edges and corners which will reflect the presence and character of the University of Central Florida. The signature treatment shall include selection of plants that represent the campus’s diverse native landscape.

**POLICY 1.1.4:** The University will reinforce and improve circulation hierarchy by developing distinct landscapes for each road type, intersections and any pedestrian/tram/service loop.

*Entrance Roads:* Medians will be landscaped with Sabal palms, low profile flowering perennials, shrubs and ground covers. Any annual plant displays will be limited to areas of high visibility, and budgeted by the specific building or user group rather than LNR

*Campus Edge:* A canopy of native trees (semi-random placements of Oaks, Pines, Palms, Sweet Gum, etc.) and other indigenous materials is to be established. A more structured understory will comprise masses of flowering shrubs.

*Primary Loop Road (Gemini Blvd.):* The median will be landscaped with a combination of native low-profile shrubs and flowering groundcover, and accented with stands of Sabal palms and occasional upright trees. As turf is removed from the median, the soil surface will be lowered so that rainwater is captured rather than shed into the roadway, bringing mulch and debris. Where necessary, unobtrusive saw-cuts in the median curbs will allow excess water to drain during the rainy season.

*Landscape Edges Adjacent to Developed Areas:* Surface parking lots will be screened with low mounds, where appropriate, and when the proposed slope is maintainable without erosion. Mounds will be planted in curvilinear (not geometric) layouts of flowering and evergreen shrubs, with occasional trees for screening or sight-line delineation. In general, turf that requires mowing shall not be installed on mounds and berms..

*Edges Adjacent to Preserve/Natural Areas:* Existing native vegetation will be preserved and enhanced with indigenous plant material. Restoration of the appropriate community structure with prescribed burns, mechanical clearing, or chemical control may be necessary to rehabilitate degraded areas. In edges adjacent to Conservation Easements, or previously permitted mitigation areas, proposed enhancement methods will be sent to SJRWMD for review.

*Campus Core Loop and Connector:* The internal connectors will be lined with closely-space (25’ on center) groups and seeps of Live, Laurel, Nuttall, or Shumard Oaks. Accent tree plantings set back into turf areas, or highlighting important nodes for pedestrian decision-making, will include plantings of Grape

Myrtles, Tabebuia species, Peltophorum, large palms, Juniper, Parkinsonia, Clerodendron, Oleander, and various Citrus species.

*Secondary roads* will be lined with different street tree species to contrast with Primary Loop Road species.

Pedestrian and Service access roads will be lined small oaks, winged elm, Yaupon holly cultivars, and large native Florida shrubs. East Palatka Hollies will no longer be planted, as they are susceptible to nematode decline in early maturity. Likewise, no Loblolly or Red Bays will be planted, as the Ambrosia beetle infestation nears the Orlando area. Drake elms will be replaced by native Winged Elms, as Drakes are weak and very susceptible to wind-throw.

**POLICY 1.1.5:** The University will follow best practices endorsed by the State of Florida to preserve and enhance existing native vegetation in all areas to remain in conservation easement or designated open space. This will include both mechanical clearing and limited use of prescribed fire, and the re-introduction of appropriate trees, shrubs, grasses, and wildflowers.

**POLICY 1.1.6:** The University will manage and protect the existing natural preserves and Arboretum and facilitate appropriate pedestrian access to these areas. More academic and recreational visitors to the conservation and natural areas will enhance the overall educational and collegiate experience.

**POLICY 1.1.7:** Tree canopy within islands of no less than 144 sq. ft. in all surface parking lots will be provided, and adequate sight lines for visibility and efficient security lighting will be maintained, No less than three (3) footcandles of illumination on average throughout parking areas.

**POLICY 1.1.8:** The University will select and locate trees to promote safety and security, enhance natural environment, provide shade for vehicles and pedestrians, and minimize maintenance requirements.

**POLICY 1.1.9:** The University will reinforce, integrate and improve existing Memory Mall and other proposed landscape axes, so that pedestrians experience the campus as a defined sequence of unique landscapes. Edges of malls and courtyards will be defined and shaded with plant materials specified for the appropriate design effect and user requirements.. The inner portions of the Memory Mall will be enhanced with plantings of shade trees and palms to improve pedestrian comfort.

**POLICY 1.1.10:** Appropriate "theme courtyards" will be integrated as an opportunity to enhance the overall education and collegiate experience by creating memorable spaces. These themed courtyards have begun (2008) with the relocation of horticultural species from the biogeographic collections of the UCF Arboretum.

**POLICY 1.1.11:** The University will develop landscape in housing areas, including courtyards, with colorful and scented landscape plants and hardscape supportive of residence life programs and activities. These auxiliary units must reimburse LNR for such installations, and preferably contract for ongoing maintenance.

**POLICY 1.1.12:** The location of future building footprints and adjacencies will be located to indicate and reinforce the open spaces depicted in the Landscape Master Plan. Pedestrian connectivity, and the coherent relation of walks to entries between and among buildings, shall be an important discussion at the commencement of all Facilities Planning projects and improvements.

**POLICY 1.1.13:** Bicycle rack style and placement will be standardized to achieve simplicity and uniformity. Selection of bicycle racks shall be based on efficiency, ease of use, tamper resistance, maintenance, and accessibility. Bicycle facilities shall be located convenient to academic and housing areas, in secure locations. Landscape treatment shall consist of adjacent canopy trees for shade, and a durable, paved surface under each bicycle rack. Abandoned bicycles will be monitored, tagged and removed by the Police Dept, with assistance from student groups, to ensure that such bikes are removed in a timely manner for sale to benefit the SGA. Annual site surveys will determine the need and location of additional bike racks.

**POLICY 1.1.14:** On-campus public transportation facilities will be sited to allow for visibility and ease of access, both pedestrian and vehicular. All shelter designs shall be consistent with UCF's architectural guidelines. Landscape treatment should provide shade, if not provided by shelter.

**POLICY 1.1.15:** Emergency access will be kept clear of any impeding landscape or hardscape installations.

**POLICY 1.1.16** All trash collection facilities will be screened from pedestrian or vehicular traffic with either fences, walls, or plants consistent with UCF's architecture guidelines.

**POLICY 1.1.17:** Maintenance facilities will be screened from pedestrian or vehicular traffic with fences, walls (preferably with vines on vertical surfaces) or other plant material consistent with UCF's architectural guidelines.

**POLICY 1.1.18:** All building construction projects will be coordinated with an associated public art budget within the design review process and with the University of Central Florida's Public Art Committee to facilitate location, theme, and integration.

**POLICY 1.1.19:** The University will use the summary analysis of existing landscape and hardscape conditions and quality prepared within the Landscape Master Plan to determine deficiencies. These will be added to University's Landscape & Natural Resources' improvement projects list.

**OBJECTIVE 1.2: To modify and adopt a revised landscape design guideline upon Master Plan adoption.**

**POLICY 1.2.1:** In concurrence with the Landscape Master Plan, landscape materials will complement and blend with the natural, native surrounding plant palette.

**POLICY 1.2.2:** As necessary, the campus master plan will be amended to include the revised plant material list and additional treatments, as stated within Landscape Design Guidelines.

**POLICY 1.2.3:** The University will monitor conformance of future construction projects with revised Landscape Design Guidelines and Landscape Master Plan through University design review procedures.

**POLICY 1.2.4** The University will develop a comprehensive maintenance manual for all campus landscape, not just for E&G areas, but for all auxiliaries and DSOs as well. The manual will ensure best management practices, reduce inputs of irrigation and chemicals, and promote a unified aesthetic across campus.

**POLICY 1.2.5** The University will develop a policy manual and mechanism for compliance in landscape management and materials that will support sustainability and unity in the campus landscape.

**OBJECTIVE 1.3: Adopt standards for overall campus furnishings, lighting fixtures and graphics depicted within the Landscape Master Plan.**

**POLICY 1.3.1** Projects which may enhance campus safety, and handicap accessibility shall be identified and prioritized according to:

1. Visibility and wayfinding
2. Pedestrian/vehicular/bicycle conflicts;
3. Enhanced lighting; and
4. Removal of barriers, where necessary, and installation of barriers where required for public safety.

**POLICY 1.3.2** In coordination with the University of Central Florida's Directors of Facilities Planning and Physical Plant, LNR will establish administrative procedures within the University's administrative structure (e.g., a design review process) to ensure the coordination of the landscape, furnishings and graphics

on the campus are in accordance with the adopted guidelines. As necessary, the Campus Master Plan shall be amended to include these procedures.

**OBJECTIVE 1.4: To adopt standards for campus edge treatments.**

**POLICY 1.4.1** In accordance with the Conservation and Landscape sections of this Master Plan, the University shall manage and enhance the existing natural buffer areas along campus edges. In edges adjacent to Conservation Easements, or previously permitted mitigation areas, proposed enhancement methods will be sent to SJRWMD for review. The University shall discourage development within the 200' buffer area, and shall re-establish understory (e.g., shrubs and groundcover) plantings of indigenous plant material in natural arrangements in areas where appropriate.

**POLICY 1.4.2** The University will create a signature architectural and landscape entry statement that enhances and an institutional entrance that contrasts and complements the naturalistic buffer/campus edge.

**OBJECTIVE 1.5: To adopt standards for landscape edge treatments surrounding ponds, lakes and stormwater features.**

**POLICY 1.5.1:** The University will conform to the requirements of the local water management district regarding side slopes for retention basins, drainage elements, and wetland mitigation areas.

**POLICY 1.5.2:** Retention lakes will be configured to be natural and curvilinear in outline. Rectilinear and pure geometric forms are not permitted. Wherever possible, side slopes shall vary and provide smooth transitions to existing grades. Gentle landforms around the lake shall reinforce the "natural" context. "Shelves" of varying depths within littoral zones will be provided to promote diversity of aquatic emergent plants.

**POLICY 1.5.3:** Whenever possible, multiple small retention areas will be incorporated into one single larger basin. Larger basins are more efficient in volume-to-surface area. Single basins also avoid the appearance of project areas surrounded by "depressed moats."

**POLICY 1.5.4:** For landscape treatment around retention lakes, maintenance and access setbacks but will otherwise create natural, existing vegetative communities, or will be simply respectively planted with native materials.

**OBJECTIVE 1.6: To implement the landscape concept plan by allocating proportional campus landscape costs to programmed building costs, and by seeking supplemental funding allocated for landscape improvements.**

**POLICY 1.6.1:** Landscape budgets shall be an integral and inviolate portion of new construction budgets, and shall be based upon a percentage of total construction costs and taken on a case by case basis. Funds allocated for landscape improvements shall not be redirected to fulfill funding shortages in other areas of the construction project.

**POLICY 1.6.2:** Landscape improvements that are independent from new building construction shall be considered as stand-alone or independent projects with respect to funding and capital expenditure programming.

**POLICY 1.6.3:** The University will apply these descending priorities for implementing components of the Landscape Master Plan:

- **Priority 1**  
Entrances, walkways, intersections and connectivity
- **Priority 2**  
Malls and Courtyards
- **Priority 3**  
Service/Pedestrian/Tram Loop
- **Priority 4**  
Loop Road
- **Priority 5**  
Parking Lots

**POLICY 1.6.4:** The University will establish policies and procedures to retain landscape architects independently of architects for campus building, and for the design and implementation of components of the Landscape Master Plan. The adopted campus master plan shall be amended to include these procedures.

**POLICY 1.6.5:** The University will seek separate funding mechanisms and revenue sources specifically targeted for landscape improvements as outlined in Master Plan.

**OBJECTIVE 1.7 To establish standards for materials and maintenance procedures for all levels of landscape installation and across all E&G, DSO, and Auxiliary grounds.**

**POLICY 1.7.1** A family of site furnishings (lighting, seating, trash receptacles, plant containers, water fountains, bike racks, bollards, barriers, etc.) will be established and will be incorporated into all building projects. Such a policy will reduce purchase, maintenance, and replacement costs, while unifying campus design.

**POLICY 1.7.2** Pruning standards for all plant material will be defined, to promote plant health, longevity, and hurricane resistance. Training for all landscape personnel will be instituted.

**POLICY 1.7.3** Permanent groundcovers will be planted in ALL mulched areas, both to reduce maintenance costs and to promote water infiltration. Mulch shall be considered a desirable but temporary application.

**POLICY 1.7.4** Temporary or short-seasonal plantings of annual plants will be avoided, except in containers or for special events. Seasonal changeouts are expensive to install and replace, and are labor-intensive while in place.

**POLICY 1.7.5** Use of nitrogen fertilizers will be reduced where practicable, and mixed turf species will be introduced to all monospecific lawn areas. Only sports turf would be exempt from reductions of irrigation and fertilizers.

**POLICY 1.7.6** The University will plant vines on windowless walls to reduce solar gain within buildings, and reduce reflected heat on the exterior.

**OBJECTIVE 1.8 To incorporate Green Screens (free-standing mesh structures to support vines) in new construction.**

**OBJECTIVE 1.9 To implement green roof installations on all new construction where practicable, both to reduce runoff velocity and to improve runoff quality, and to prolong the life of roofing membranes.**

**OBJECTIVE 1.10 To plan fountains and water features carefully to enhance landscape quality.**

**POLICY 1.10.1** The University will design fountains to be basin-less, that is, where the re-circulation collection and pumping is concealed beneath a grate.

**POLICY 1.10.2** Water features will be designed to be low-flow and evaporation resistant through reduced surface area.

**OBJECTIVE 1.11 To articulate special events policies are to be articulated in the Golden Rule, Student Activities Guidelines, and in collaboration with DSO and Auxiliary entities on campus.**