

## **32 90 00 Planting**

Revision 01/04/2019

### **Purpose:**

The Architect and/or Engineer shall incorporate the Rice specific requirements indicated in this standard's section into their design. The Architect and/or Engineer shall further produce project specifications in line with industry standards that are updated to reflect these Rice specific requirements.

### **1. General Requirements**

- a. The Lowrey Arboretum encompasses the whole campus with special projects interspersed throughout. Smaller scale gardens exist within the College Masters' Houses, in connection to Art, and at a few specific locations.
- b. The following generally characterizes the traditions and approaches to lawns and landscaping on the campus.
  - i. The primary elements of the campus landscape are grass lawns and alleys of trees.
  - ii. Tree locations along sidewalks shall follow standard placement of 50'.
  - iii. All trees shall be planted a minimum of 25' from face of buildings.
  - iv. Ornamental landscape trees including crepe myrtle, redbud, lagustrum, or as listed in product standards, shall be planted a minimum of 5' from face of building.
- c. The Rice Campus has historically celebrated its building architecture by minimizing heavy landscape planting at the base of the building with lawns or groundcover often extending to the face of the building.
- d. All trees, shrubs, flowers and grasses shall be covered by an automatic irrigation system. Refer to standard section 32 80 00 – Irrigation

### **2. Landscape Plan Development**

- a. While designing a landscape, refer to current campus Landscape Master Plan.
- b. Obtain approval of design concept from University Architect.
- c. Review proposed landscape plans with Grounds Department to verify type of plants for specific locations.
- d. Review planting selections with the Lowrey Arboretum Committee for recommendations and general input.
- e. Vegetation not recommended on campus includes Cottonwood and Willow trees.

### **3. Lawns and Fields**

- a. Provide a minimum 2% slope on lawn areas.
- b. For all formal and semi-formal lawns between buildings, it is desirable to achieve a "visually" flat lawn that minimizes distinct ridges, swales and depressions.

- c. All lawns except sports fields are to be St. Augustine or its cultivars. There is an option for Native Sun Turf (80% Buffalo Grass and 20% Blue Grama), but this requires prior approval by the Rice Project Manager.
- d. New lawns, major repairs, and replacements shall be placed as solid sod.
- e. All sports field lawns shall be Bermuda grass constructed on an engineered base for drainage. Architect shall establish basic design criteria for turf performance including: time to use following a rain event, percolation rate, repeat use performance, and shock attenuation. Follow general standards for design and testing as covered in ASTM standards for sports fields.

**4. Trees**

- a. For roadways and major sidewalks running east–west, all bordering tree lines are to be a variety of oak that thrive in this area.
- b. For roadways and major sidewalks running north–south, the bordering tree lines are open to shade tree varieties that thrive in this area.
- c. Coordinate the placement of new utility lines and new tree locations to avoid placement over utility lines.
- d. All tree selections and placement shall be approved by the University Architect and Rice Arboretum Committee.
- e. Individual trees must receive inspection and approval from the University Arborist. The logistics of tree inspection shall be determined by 50% construction documents.

**5. Soil and Mulch**

- a. Lime stabilization not permitted within 10' of tree drip lines.
- b. Soil mix for exterior planting beds shall be a weed-free mix of 20% sharp sand, 40% composted pine bark or rice hulls, and 40% topsoil.
- c. Planting beds shall receive a minimum of 4" of prepared soil mixture, tilled thoroughly with existing soil until a homogenous mixture is achieved to a depth of 6"-8". Incorporate herbicide and mulch prepared beds with 2" composted mulch.
- d. Mulch material for exterior planting beds shall be double shredded hardwood mulch.
- e. Gravel shall not be used in planting beds.
- f. DG may be used for paths or seating cutouts
- g. Where possible existing healthy soils shall be maintained.

**6. Edging**

- a. Steel edging is used in 1/16"-1/8" thickness. It is made of galvanized steel and baked on paint. Green should be used around planting and black around mulch and decomposed granite sidewalks. All steel edging installations should be coordinated with the Grounds department.

**7. Warranty Requirements:**

- a. The Landscape Contractor shall provide a minimum one year warranty on all newly installed trees and shrubs.