







I. Description of Work

- A. Provide all exterior planting as shown on the drawings or inferable therefrom and/or as specified in accordance with the requirements of the Contract Documents.
B. Landscape plants provided shall include plant material only. Structural elements and hardscape features indicated on the landscape plans are for information purposes only.
C. All applicable federal, state and local permits shall be obtained prior to the removal, relocation, or installation of plant materials indicated within the plan documents.

II. Applicable Standards

- A. American National Standards for Tree Care Operations, ANSI A300. American National Standards Institute, 11 West 42nd Street, New York, N.Y. 10036.
B. American Standard for Nursery Stock, ANSI Z60.1. American Nursery and Landscape Association, 1250 Eye Street, NW, Suite 500, Washington, D.C. 20005.
C. Hortus Third, The Staff of the L.H. Bailey Hortorium. 1976. MacMillan Publishing Co., New York.
D. Florida Department of Agriculture "Grades and Standards for Nursery Plants", most recent addition.
E. National Arborist Association- Pruning Standards for Shade Trees

III. Qualifications

- A. Landscape planting and related work shall be performed by a firm with a minimum of five years experience specializing in this type of work. All contractors and their sub-contractors who will be performing any landscape work included in this section of the specification shall be approved by the landscape architect.
B. Landscape Contractor shall be licensed and shall carry any necessary insurance and shall protect the Landscape Architect and Owner against all liabilities, claims or demands for injuries or damage to any person or property growing out of the performance of the work under this contract.

IV. Requirements of Regulatory Agencies

- A. Certificates of inspection shall accompany the invoice for each shipment of plants as may be required by law for transportation. File certificates with the landscape architect prior to acceptance of the material. Inspection by federal or state authorities at place of growth does not preclude rejection of the plants at the site.

V. Submittals

- A. Manufacturer's Data: Submit copies of the manufacturer's and/or source data for all materials specified, including soils, soil amendments and fertilizer materials. Comply with regulations applicable to landscape materials.
B. Samples: Submit samples of all topsoil, soil mixes, mulches, and organic materials. Samples shall weigh 1 kg (2 lb) and be packaged in plastic bags.
C. Nursery Sources: Submit a list of all nurseries that will supply plants, along with a list of the plants they will provide and the location of the nursery.

VI. Utility Verification

- A. The contractor shall contact the local utility companies for verification of the location of all underground utility lines in the area of the work.
B. Provide a chemical analysis, including the following:
a. pH and buffer pH
b. Percentage of organic content by oven-dried weight.

Landscape Planting - Part I, General

Table with 2 columns: USDA Designation, Size in mm. Rows include Grave, Very Course Sand, Coarse Sand, Medium Sand, Fine Sand, Very fine sand, Silt, Clay.

Q. Mechanized Tree Spade Requirements

Trees may be moved and planted with an approved mechanical tree spade. The tree spade shall move trees limited to the maximum size allowed for a similar B&B root-ball diameter according to the American Standard for Nursery Stock or the manufacturer's maximum size recommendation for the tree spade being used, whichever is smaller.

II. Materials for Planting

- A. Mulch: Except as otherwise specified, mulch shall be shredded Melaleuca mulch - grade "A". All Melaleuca mulch shall be made entirely from the wood and bark of the Melaleuca quinquinervia tree.
B. Peat: Shall be horticultural peat composed of not less than 60% decomposed organic matter by weight, on an oven dried basis.
C. Gravel Mulch: Use only where specifically indicated on the plans of the size and type shown.
D. Root Barrier: Where specified, root barriers shall be installed on all tree and palm material in accordance with the root barrier detail provided within the plan drawings.

III. Materials for Soil Amendment

- A. Pine Bark: Horticultural-grade milled pine bark, with 80 percent of the material by volume sized between 0.1 and 15.0 mm.
1. Pine bark shall be aged sufficiently to break down all woody material.
2. pH shall range between 4 and 7.0.
3. Submit manufacturer literature for approval.
B. Organic Matter: Leaf matter and yard waste composted sufficiently to break down all woody fibers, seeds, and leaf structures, and free of toxic and nonorganic material.

Table with 2 columns: Sieve, Percentage Passing. Rows include 3/8 in (9.5 mm), No. 4 (4.75 mm), No. 8 (2.36 mm), No. 16 (1.18 mm), No. 30 (0.60 mm), No. 50 (0.30 mm), No. 100 (0.15 mm).

- D. Lime: shall be ground, palletized, or pulverized lime manufactured to meet agricultural standards and contain a maximum of 60 percent oxide (i.e. calcium oxide plus magnesium oxide).
E. Sulfur: shall be flowers of sulfur, pelletized or granular sulfur, or iron sulfate.
F. Fertilizer: Agricultural fertilizer of a formula indicated by the soil test.

IV. Planting Mix

- A. Planting Mix
1. Planting Mix for Trees, Shrubs, Groundcovers and vines: Check with landscape architect for appropriate mixture.
2. Planting Mix for Palms: Mixture of course sand and peat mixed to the following proportion:
Component Percent by Volume
Coarse Sand 75%
Peat 25%
B. Planting mix shall be thoroughly mixed, screened, and shredded.
C. Prior to beginning the mixing process, submit a 1-kg (2-lb) sample of the proposed mix with soil test results that indicate the mix ratio and the results achieved.

Part 3. Execution

- I. Excavation of Planted Areas
A. Locations for plants and/or outlines of areas to be planted are to be staked out at the site.
B. Tree, shrub, and groundcover beds are to be excavated to the depth and widths indicated on the landscape plan detail drawings.
C. For trees and shrubs planted in individual holes in areas of good soil that is to remain in place and/or to receive amendment in the top 150-mm (6 in.) layer, excavate the hole to the depth of the root ball and to widths shown on the drawing.
D. Detrimental soil conditions: The landscape architect is to be notified, in writing, of soil conditions encountered, including poor drainage, that the contractor considers detrimental to the growth of plant material.

II. Installation of Planting Mix

- A. Prior to the installation of the planting mix, install subsurface drains, irrigation main lines, lateral lines, and irrigation risers shown on the drawings.
B. The landscape architect shall review the preparation of subgrades prior to the installation of planting mix.
C. Do not proceed with the installation of planting mix until all utility work in the area has been installed.
D. Protect adjacent walls, walks, and utilities from damage or staining by the soil.
E. Till the subsoil into the bottom layer of topsoil or planting mix.
1. Loosen the soil of the subgrade to a depth of 50 to 75 mm (2 to 3 in.) with a rototiller or other suitable device.
2. Spread a layer of the specified topsoil or planting mix 50 mm (2 in.) deep over the subgrade.
3. Immediately install the remaining topsoil or planting mix in accordance with the following specifications.

III. Fine Grading

- A. It shall be the responsibility of the Contractor to finish grade (min. 6" below adjacent F.F.E.). Finish grades in planting areas shall be one inch lower than adjacent paving and are to include 3" of mulching.
B. Fill all dips and remove any bumps in the overall plane of the slope.
1. The tolerance for dips and bumps in lawn areas shall be a 12-mm (1/2 in.) deviation from the plane in 3,000 mm (10 ft).
2. The tolerance for dips and bumps in shrub planting areas shall be a 25-mm (1 in.) deviation from the plane in 3,000 mm (10 ft).
3. All fine grading shall be inspected and approved by the landscape architect prior to planting, mulching, sodding, or seeding.

IV. Planting Operations

- A. Plants shall be set on flat-tamped or unexcavated pads at the same relationship to finished grade as they were to the ground from which they were dug.
B. Lift plants only from the bottom of the root balls or with belts or lifting harnesses of sufficient width not to damage the root balls.
C. Remove plastic, paper, or fiber pots from containerized plant material.
D. The roots of bare-root trees shall be pruned at the time of planting to remove damaged or undesirable roots.
E. Cut ropes or strings from the top of shrub root balls and trees smaller than 3 in. caliper after plant has been set.
F. Set balled and burlapped trees in the hole with the north marker facing north unless otherwise approved by the landscape architect.
G. Place native soil, topsoil, or planting mix into the area around the tree, tamping lightly to reduce settlement.
H. Solid soil shall be laid with closely abutting joints with a tamped or rolled, even surface.
I. Thoroughly water all plants immediately after planting.
J. Remove all tags, labels, strings, etc. from all plants.
K. Remove any excess soil, debris, and planting material from the job site at the end of each workday.
L. Form watering saucers 100 mm (4 in.) high immediately outside the area of the root ball of each tree as indicated on the drawings.
M. Landscape Contractor shall root prune trees which are to be relocated in accordance with approved horticultural practices and the following procedures.
1. Select a healthy tree
2. Selectively trim the canopy removing dead limbs, cross branching over crowned areas, and lower undesirable limbs.
3. Root prune 50% of the root system approximately 18"-2" deep (depending upon species and size).
4. Back fill the existing soil with peat moss to stimulate new root growth of the pruned roots.
5. Water in thoroughly and treat with a mycorrhizal and a low nitrogen fertilizer.
6. The root pruned tree should be watered every day (especially during warm months of the season), the equivalent of 5 gallons for every DBH of tree per day.
7. Root pruned trees should be let to stand for a minimum of 6 weeks for trees less than 8" DBH and as long as 3 months for larger specimens prior to transplanting.
8. For best results and survivorship, new root growth should be evident on root pruned trees prior to transplanting.
9. Upon transplanting, water should be applied every day as outlined in step 6 for at least one year.

VI. Staking and Guying

- A. The Contractor shall stake all trees and palms in accordance with the tree and palm staking details provided within the plan drawings.
B. The Contractor shall be responsible for the replacement or adjustment of all trees, palms or shrubs that fall or lean during the guarantee period.
C. Stakes and guys shall be installed immediately upon approval or planting, and shall be removed in accordance with the staking details provide within the plan drawings.
D. Any tree that is not stable at the end of the warranty period shall be rejected.

VII. Pruning

- A. Plants shall not be heavily pruned at the time of planting. Pruning is required at planting time to correct defects in the tree structure, including removal of injured branches, watersprouts, suckers, and interfering branches.
B. All pruning shall be completed using clean, sharp tools.
C. Pruning of large trees shall be done from a hydraulic man-lift such that it is not necessary to climb the tree.
VIII. Mulching
A. All trees, palms, shrubs, and other plantings will be mulched with mulch previously approved by the landscape architect.
B. Place mulch at least 3" in depth in a circle around all trees located in lawn areas.
C. Pruning of large trees shall be done from a hydraulic man-lift such that it is not necessary to climb the tree.

IX. Maintenance of Trees, Shrubs, and Vines

- A. Maintenance shall begin immediately after each plant is planted and continue until its acceptance has been confirmed by the landscape architect.
B. Maintenance shall consist of pruning, watering, cultivating, weeding, mulching, fertilizing, lightening and repairing guys and stakes, resetting plants to proper grades or upright position, restoring of the planting saucer, and furnishing and applying such sprays or other materials as necessary to keep plantings free of insects and diseases and in vigorous condition.
C. Planting areas and plants shall be protected at all times against trespassing and damage of all kinds for the duration of the maintenance period.
D. Watering: Contractor shall irrigate as required to maintain vigorous and healthy tree growth.
E. During periods of restricted water usage, all governmental regulations (permanent and temporary) shall be followed.
F. Remove soil ridges from around watering basins prior to end of maintenance period, as directed by Landscape Architect

X. Acceptance

- A. The landscape architect shall inspect all work for acceptance upon written request of the contractor.
B. Acceptance of plant material shall be for general conformance to specified size, character, and quality and shall not relieve the contractor of responsibility for full conformance to the contract documents, including correct species.
C. Upon completion and re-inspection of all repairs or renewals necessary in the judgment of the landscape architect, the landscape architect shall certify in writing that the work has been accepted.

XI. Acceptance in Part

- A. Work may be accepted in parts when the landscape architect and contractor deem that practice to be in their mutual interest.
XII. Guarantee Period and Replacements
A. The guarantee period for trees and shrubs shall begin at the date of acceptance.

- B. The contractor shall guarantee all plant material to be in healthy and flourishing condition for a period of one year from the date of acceptance.
C. When work is accepted in parts, the guarantee periods extend from each of the partial acceptances to the terminal date of the guarantee of the last acceptance.
D. The contractor shall replace, without cost, as soon as weather conditions permit, and within a specified planting period, all plants determined by the landscape architect to be dead or in an unacceptable condition during and at the end of the guarantee period.
E. The guarantee of all replacement plants shall extend for an additional period of one year from the date of their acceptance after replacement.
F. At the end of the guarantee, the contractor shall reset grades that have settled below the proposed grades on the drawings.
G. The contractor shall make periodic inspections, at no extra cost, during the guarantee period to determine what changes, if any, should be made in the maintenance program.
XIII. Final Inspection and Final Acceptance
At the end of the guarantee period and upon written request of the contractor, the landscape architect will inspect all guaranteed work for final acceptance.



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Table with 4 columns: NO., DATE, DESCRIPTION, REVISIONS. Rows include CAD, JOB NO., DRAWN BY, CHECK BY, DATE.

LANDSCAPE ARCHITECT OF RECORD
TIFFANY DELYNN MAY, PLA
FL# LA6667274

HARBOUR'S EDGE PARKING
IMPROVEMENTS
DELRAY BEACH, FL
LANDSCAPE SPECIFICATIONS

SHEET:
LP-302