

LANDSCAPING SPECIFICATIONS

PART 1 - GENERAL

- 1.1 SCOPE
 - A. Provide all labor, materials, equipment, watering, supervision, and work necessary to complete work in accordance with the intent of the landscape plans, schedules and specifications. The extent of work is shown on the drawings which is part of this document.
- 1.2 SUBSTITUTIONS
 - A. Only materials specified will be accepted, unless approved in writing by the Landscape Architect in advance.
- 1.3 PLANT SIZES
 - A. All plant sizes shall equal or exceed the minimum sizes as specified in the plant list. When plant sizes are specified as a range of size, installed materials shall average the mean of the range specified. Plants shall be measured following pruning, with the branches in normal position. All necessary pruning shall be done at the time of planting.
- 1.4 PLANT QUALITY
 - A. All plant material shall be equal to or better than Florida No. 1 as classified by "Grades and Standards for Florida Nursery Plants" by the Division of Plant Industry, Florida Department of Agriculture. They shall have a growth habit that is normal for the species; healthy, vigorous, free from insects, disease and injury.
- 1.5 PLANT QUANTITY
 - A. The plant quantities shown on the plant list are to be used only as an aid to bidders. In the case of discrepancy between the plant list and the plan, the plan shall be held valid.
- 1.6 UNIT PRICES
 - A. The successful bidder shall furnish to the Owner and the Landscape Architect a unit price breakdown for all materials. The Owner may at his discretion add to or delete from the materials utilizing the unit price breakdown submitted to and accepted by the Owner.
- 1.7 INSPECTION CERTIFICATES
 - A. Fertilizer: The Contractor shall submit to the Owner and Landscape Architect documentation that all fertilizer used for the project is of the analysis specified and placed at the rates specified.
- 1.8 GRADING
 - A. Rough Grading: All areas to be rough graded to within three (3) inches of finished grade by others. All construction debris to be removed by others.
 - B. Fine Grading: All areas to be planted, mulched, or sodded shall be raked by the Contractor to remove all debris 1" in diameter or larger.
- CLEAN-UP
 - A. Upon completion of the work or any major portion of the work or as directed by the Landscape Architect, all debris and surplus material shall be removed from the job site.
- 1.10 MAINTENANCE
 - A. The Contractor is responsible to maintain the plantings until they are accepted under the provisions of 1.11-C "ACCEPTANCE".
 - 1. Plants: Begin maintenance immediately following the final plant installation operation for each plant and continue until all plant installation is complete and accepted. Maintenance shall include watering all plants, weeding, mulching, pest control, lightening and repairing of guys, repointing of braces, removal of dead growth, resetting of plants to proper grade or up-right position, restoration of plant saucers, and other necessary operations as determined by the Landscape Architect and good nursery practice.
 - 2. Turf Areas: Begin maintenance of turf immediately following the placement of sod and continue until sod installation is complete and accepted. Maintenance shall include, but not be limited to, watering, leveling, mowing, weed and pest control, fungus and disease control, and other necessary operations as determined by the Landscape Architect and good nursery practice.
 - 3. Watering of Field-Grown Plants: The following water schedule and amount of water per application shall be followed during maintenance period. If climatic or soil conditions warrant a variation of this schedule, the Contractor shall be responsible to notify the Landscape Architect and receive his approval. All field grown plants shall be watered once daily for the first week after planting; every other day for the next week; and twice weekly for the third and fourth week.

- up to 4 inch trunk caliper for trees	10 gallons
- from 5 to 8 inch caliper	25 gallons
- 9 inch and up caliper	50 gallons

- 1.11 OPERATIONS FOR ACCEPTANCE
 - A. General: A project may be accepted in segments if the work is extensive enough to justify segmented acceptance. If a project is to be segmented, segments shall be recorded on the drawings or in other reasonable documents. If segments are not so designated during negotiation, the work will only be accepted in total when all work is completed.
 - B. Inspection: Inspection of the work, in this Section, to determine completion of completion of contract work exclusive of the possible replacement of plants and turf, will be made by the Landscape Architect at the conclusion of the maintenance period, upon written notice requesting such inspection and submitted by the Contractor at least ten (10) days prior to the anticipated date. The condition of the turf area will be noted and determination made by the Landscape Architect as to whether maintenance shall continue.
 - C. After inspection, the Landscape Contractor will be notified in writing, by the Landscape Architect of acceptance of all work, of this section, exclusive of the possible replacement of plants subject to guarantee or if there are any deficiencies of the requirement for completion of the work. Turf maintenance or other work remaining to be done shall be subject to re-inspection before acceptance.
- 1.12 GUARANTEE
 - A. Guarantee all plants for sixty (60) consecutive calendar days (CCD) from the date of acceptance. Guarantee palms, cacti, palmiettoes, and coccis spp. or equal for a period of three hundred sixty five (365) CCD. Guarantee shall commence from the date of written acceptance. Plant material which is on the site and scheduled to be relocated is not covered by the guarantee except in the case of Contractor's negligence or work that has been done in an unworkman-like manner. The Contractor is not responsible for loss due to acts of god, vandalism, or theft.
- 1.13 REPLACEMENT
 - A. Replacements shall be made during the guarantee period as directed by the Landscape Architect. At the end of the guarantee period, an inspection will be made by the Landscape Architect, upon written notice requesting such an inspection and submitted by the Contractor at least five (5) days before the anticipated date, remove from the site all plants that are dead or in a state of unsatisfactory growth, as determined by the Landscape Architect. Replace these and any plants missing due to the Contractor's negligence as soon as conditions permit.

- 2. Materials and Operations: All replacement plants shall be of the same kind and size as indicated on the plant list. The Contractor shall supply and plant the plants as specified under planting operations.
- 2. Cost of Replacements: A sum sufficient to cover the estimated cost of possible replacements, including material and labor will be retained by the Owner and paid to the Contractor after all replacements have been satisfactorily made and approved by the Landscape Architect.

PART 2 - MATERIALS

- 2.1 PLANTING SOIL
 - A. General Purpose Planting Soil: General Purpose Planting Soil shall be of the composition noted in the plans measured by volume.
 - B. Special Planting Soil: Shall be of a composition noted in the plans, measured by volume and installed where noted in the plans.
- 2.2 FERTILIZER
 - A. Fertilizer for trees, shrubs, & groundcovers, and vines shall be as follows: LESCO 8-10-10, Sulfur coated with iron and other minor elements and maximum of 2% chlorine or brand with equal analysis. The fertilizer shall be uniform in composition, dry and free flowing and shall be delivered to the site in the original unopened containers, bearing the manufacturer's guaranteed analysis. Fertilizer for sod and seeded areas shall be 8-8-8, 50% organically derived nitrogen, or equal. Fertilizer for palms shall be LESCO 13-3-13 Palm Special or equal.

- 2.3 WATER
 - A. The Owner shall provide potable water on site, available from the available from the start of planting, as required by the Contractor. The Contractor is responsible to ascertain the location and accessibility of the water source. The Contractor is responsible to provide the means of distribution (i.e. water truck, hoses, etc.) for distribution of water to the areas of planting. If water volumes and accessibility are not satisfactory to the Contractor, it is his responsibility to negotiate acceptance terms with the Owner prior to signing of a contract.

- 2.4 MULCH
 - A. Mulch shall be as specified in the plant list, uniformly shredded and free from large pieces of bark and foreign matter.

PART 3 - INSTALLATION PROCEDURES

- 3.1 LAYOUT
 - A. Verify location of all underground utilities and obstructions prior to excavation. Locate near planting where construction below grade or overhead are encountered or necessary adjustments below grade or overhead are encountered or necessary adjustments only after approval by the Landscape Architect.

- 3.2 HERBICIDE TREATMENT
 - A. In all areas infested with weed and/or grass growth, a systemic herbicide such as roundup, shall be applied per manufacturer's rates. When it has been established where work will be done, the systemic herbicide shall be applied in accordance with manufacturer's labeling to kill all noxious growth. Contractor shall schedule his work to allow more than one application to obtain at least 90% kill of undesirable growth. Contractor shall exercise extreme care to prevent damage to desirable existing growth. If necessary, Contractor shall conduct a test to establish suitability of product and applicator to be used on this project, prior to execution of the full application.
 - B. When specified in the plans, a pre-emergent herbicide such as Treflan shall be applied after planting.

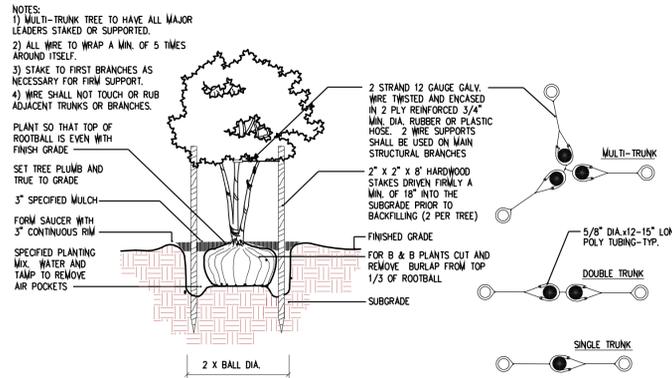
- 3.3 PLANT PIT EXCAVATION AND BACKFILLING
 - A. Trees: The diameter of the planting pits shall be at least two feet wider and one foot deeper than the size of the root ball. Backfill the planting pit, utilizing general purpose planting soil (50%) and soil from the site which all coarse debris 2" in diameter or larger has been removed (50%).

- B. Shrubs and Groundcovers: Shrubs and groundcover shall be planted in a soil bed of general purpose planting soil to the depth noted in the plans. In areas where placement of the soil bed on top of existing grade will create grading and/or drainage problems, the Contractor shall excavate and remove the existing soil and replace to proper finish grade with the planting soil.

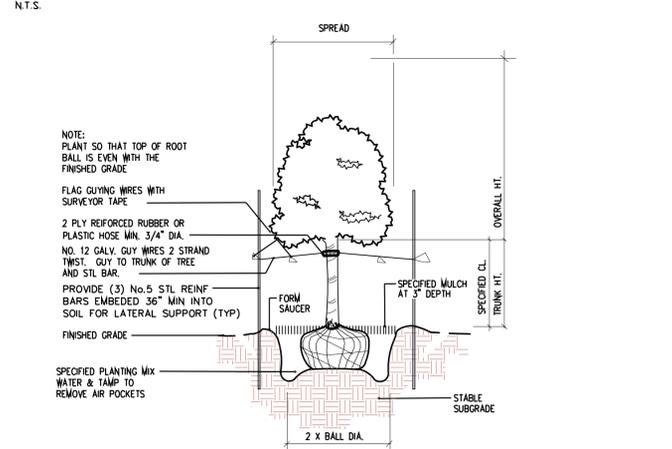
- 3.4 WATERING-IN
 - A. Water in plants by thorough soaking of the entire root ball immediately after planting. For large trees and shrubs, add water while backfilling hole to eliminate any air pockets in the soil around the root ball.
 - B. Water shrubs, sod, and groundcover a minimum of once daily until an irrigation system is fully operational. Water for trees other large field grown plants shall be supplemented by hand watering in addition to the irrigation system, as specified in 1.10 (A-3).

- 3.5 FERTILIZING
 - A. Add fertilizer on top of the surface one (1) week after planting of each segment of the job after soil has been well moistened, at the following rates of application:
 - 1. Trees & Large Shrubs: One (1) pound per inch of trunk diameter, spread evenly over the root ball area.
 - 2. Shrubs: One handful per shrub, spread evenly over the root ball area.
 - 3. Groundcover: Twelve (12) pounds per 1000 sq. ft. of bed area.
 - 4. Sod: Twelve (12) pounds per 1000 sq. ft.. Wash off baldes immediately after spreading.

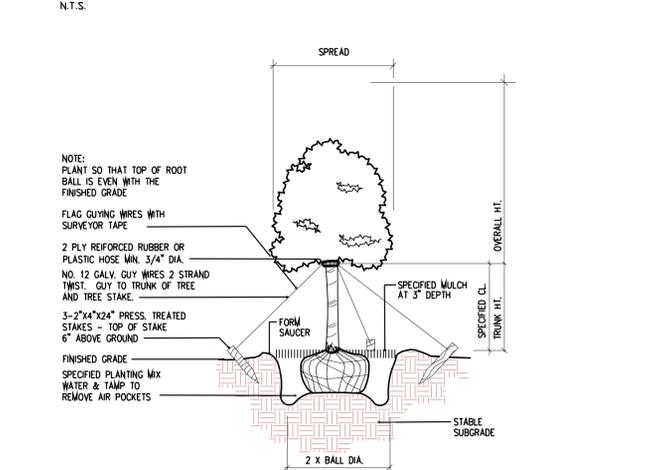
- 3.6 MULCHING
 - A. Spread mulch two (2) inches thick uniformly over the entire surface of shrub and groundcover beds, depth measured after setting. Provide 24" diameter bed of mulch, measures from outer edge of the trunk, for all trees and palms in sod areas. Keep mulch away from contact with the trunk.
- 3.7 GUYING & BRACING
 - A. See the details bound herewith or made part of the plans.
- 3.8 SODDING
 - A. Provide a blanket of topsoil, free from weeds, debris and stones over 1" diameter. Soil shall be a minimum of two (2) inches thick. Prior to planting remove all stones, sticks, etc. from the sub-soil surface. Excavate existing non-conforming soil if required so that level of soil prior to sodding shall be three (3) inches below adjacent pavement or top of curb.
 - B. Place sod on moistened soil, with edges tightly butted, in rows at right angles to slopes. The sod shall be rolled with a 500 pound hand roller. On slopes greater than one in three, peg the sod into place with not less than two stakes per square yard.
 - C. Keep edge of sod bed a minimum of twelve (12) inches away from groundcover beds and twenty four (24) inches away from shrub bed and trees.
 - D. Completed sod shall immediately be watered sufficiently to wet the soil to at least two inches below the bottom of the sod strips.
 - E. Apply fertilizer to the sod after initial watering, as specified in Section 3.5.



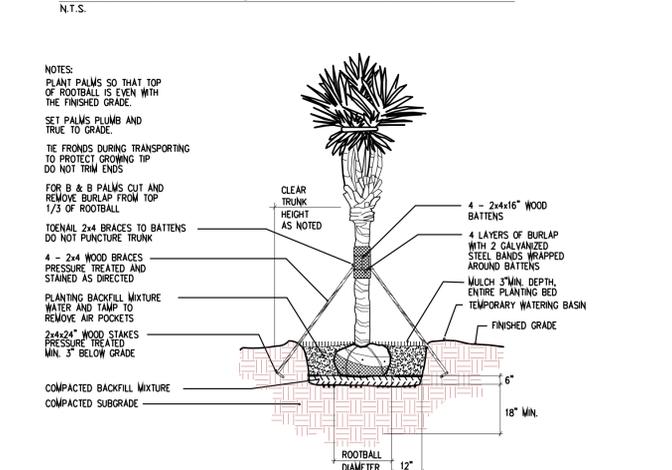
MULTI-TRUNK TREE PLANTING/STAKING DETAIL



TREE PLANTING/NARROW STAKING DETAIL



TREE PLANTING/STAKING DETAIL



PALM PLANTING/STAKING DETAIL

SOD
St. Augustine "Floratom" for parking areas, Bahia Sod for playfields

PLANTING NOTES:
Plant materials shall conform to grades and standards for Florida No. 1 or better as given in grades and standards for nursery plants, part 1 (current edition) and part 1 (current edition) by the Florida Department of Agriculture and Consumer Services Divisions of Plant Industry.
Planting mix/backfill mix shall be clean and free of construction debris, weeds, rock and noxious pests and disease. The planting areas shall be amended with a minimum of forty (40) percent of muck or horticultural acceptable organic material. The minimum topsoil depth shall be four (4) inches for ground cover areas and sodded grass areas.

Washington Palms shall be planted in a good grade of soft free sand. Trees and shrubs shall be fertilized at the time of planting with agform planting tablets, 20-10-5 formula 21 grams at manufacturers recommended rate. Trees and shrubs shall be planted with a minimum of 6" of topsoil beneath rootball.
Fertilizer shall comply with state fertilizer laws. It shall have a chemical designation as indicated for each type of plant:
Turf: 4-1-2 N-P-K with micronutrients. Apply at a rate of 1 lb. of nitrogen per 1000 s.f.
Palms: 2-1-1 N-P-K with micronutrients.

Shrubs and Trees:
7-6-6 N-P-K with micronutrients. Mulch shall be clean, bright and free of weeds, moss sticks and other debris.
All landscape installation to be 100% irrigated to meet local and state regulations with a minimum of 50% overlap. (See Plans and Specs)

All work shall be done in accordance with authorities having jurisdiction. Contractor shall submit shop drawings for approval.
No charges/substitutions shall be made without prior consent of the designer.
Contractor shall field verify locations of all utilities prior to installation.

All landscape areas shall be sodded unless otherwise noted. Landscape contractor shall coordinate his work with that of the irrigation contractor.
Mulch: All plants and plant beds shall have a 3" layer of clean weed free, organic mulch (eucalyptus where possible). Mulch shall contain less than 10% wood chips.

Utilities: The location and existence of utilities (overhead and underground) shall be thoroughly investigated and verified by the Landscape Contractor before the work begins in exercise care in digging and work so as not to damage existing utilities in soil areas, such as underground pipes, cables, wires, etc. The Landscape Contractor shall be responsible for the immediate repair of any damage to utilities caused by the work.

Watering: Initially water the plant material to develop uniform coverage and deep water penetration of at least 6". Avoid erosion, puddling, and washing soil away from plant roots.
Plant quantities in plant legend are for reference only. If discrepancies exist between quantities in legend and quantity shown on plan, plan shall govern.

Plant Quantities: Plant quantities are provided as a courtesy and should be verified by the contractor prior to bidding.
Sod: Sod shall be clean and visibly free of weeds, noxious pests, and diseases.

Planting: All planting holes shall be excavated to a minimum of 1 1/2 times the diameter of the root ball of plant to be planted and back filled with planting soil. Plant beds shall be excavated to a minimum of 12" and back filled with planting soil.

Sizes: All sizes shown for plant material on the plan are to be considered as minimums. All plants must meet or exceed these minimum requirements for height, spread, trunk caliper.
All shrubs, trees and palms shall be minimum of 6' away from all other utilities.

TREE LEGEND & DISPOSITION TABLE:

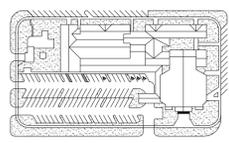
SYM	TREE TYPE	TRUNK DIA. (In Inches)	HEIGHT (In Feet)	CANOPY (In Feet)	CONDITION	DISPOSITION
1	SHADE TREE	14	35	35	FAIR	TO REMAIN
2	SHADE TREE	20	40	35	FAIR	TO REMAIN
3	PALM TREE	11	15	8	FAIR	TO REMAIN
4	PALM TREE	12	25	8	FAIR	TO REMAIN
5	SHADE TREE	15	50	40	FAIR	TO REMAIN
6	SHADE TREE	9	22	15	FAIR	TO REMAIN
7	SHADE TREE	12	30	35	FAIR	TO REMAIN
8	SHADE TREE	16	40	43	FAIR	TO REMAIN
9	SHADE TREE	15	45	35	FAIR	TO REMAIN
10	SHADE TREE	12	35	18	FAIR	TO REMAIN
11	SHADE TREE	22	55	37	FAIR	TO REMAIN
12	SHADE TREE	29	50	60	FAIR	TO REMAIN
13	SHADE TREE	26	40	45	FAIR	TO REMAIN
14	SHADE TREE	22	35	31	FAIR	TO REMAIN
15	MULTI-TRUNK PALM	32	38	36	FAIR	TO REMAIN
16	MULTI-TRUNK PALM	24	35	38	FAIR	TO REMAIN
17	SHADE TREE	14	40	34	FAIR	TO REMAIN
18	MULTI-TRUNK	12	50	30	FAIR	TRIM BRANCH & ROOTS FOR CONST
19	PALM TREE	8	20	8	FAIR	TO REMAIN
20	PALM TREE	9.5	18	8	FAIR	TO REMAIN
21	PALM TREE	10	18	12	FAIR	TO REMAIN
22	MULTI-TRUNK	8	35	16	FAIR	TO REMAIN
23	SHADE TREE	12	40	12	FAIR	TO REMAIN
24	MULTI-TRUNK PALM	50	22	12	FAIR	TO REMAIN
25	SHADE TREE	8	20	15	FAIR	TO REMAIN
26A	SHADE TREE	12	25	18	FAIR	TO REMAIN
26B						
27	MULTI-TRUNK PALM	4	23	12	FAIR	TO REMAIN
28	MULTI-TRUNK PALM	8	24	12	FAIR	TO REMAIN
29	MULTI-TRUNK PALM	6	22	8	FAIR	TO REMAIN
30	SHADE TREE	8.5	20	11	FAIR	TO REMAIN
31	PALM TREE	18	30	12	FAIR	TO REMAIN
32	SHADE TREE	12	25	12	FAIR	TO REMAIN
33	SHADE TREE	16	25	16	FAIR	TO REMAIN
34	SHADE TREE	6.5	25	10	FAIR	TO REMAIN
35	SHADE TREE	36	50	75	FAIR	TO REMAIN
36	MULTI-TRUNK PALM	60	22	12	FAIR	TO REMAIN
37	MULTI-TRUNK PALM	60	22	12	FAIR	TO REMAIN
38	MULTI-TRUNK PALM	60	22	12	FAIR	TO REMAIN
39	MULTI-TRUNK PALM	30	20	12	FAIR	TO REMAIN
40	SHADE TREE	6	12	8	FAIR	TO REMAIN
41	SHADE TREE	38	25	40	FAIR	TO REMAIN
42	MULTI-TRUNK PALM	5	19	8	FAIR	TO REMAIN
43	MULTI-TRUNK PALM	5	19	8	FAIR	TO REMAIN
44	MULTI-TRUNK PALM	4	19	8	FAIR	TO REMAIN
45	SMALL PLANT	4	18	8	FAIR	TO REMAIN
46	PALM TREE	5	20	8	FAIR	TO REMAIN
47	MULTI-TRUNK	35	12	35	FAIR	TO REMAIN
48	MULTI-TRUNK	14	35	27	FAIR	TO REMAIN
49	PALM TREE	3.5	20	8	FAIR	TO REMAIN

TOTAL NUMBER OF TREES 49-ALL EXISTING TO REMAIN

No.	DATE	REVISION	BY
△	10.05.11	COORDINATION	IAF

DRAWN BY: APPROVED BY:
RL RL
DATE: 2009 SCALE: As Shown

KEY PLAN
N.T.S.



SEAL/SIGNATURE

10-05-2011
ROLANDO LLANES, AIA
AR - 0013160

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SHEET TITLE
PLANTING
DETAILS
NOTES AND
SPECS

SHEET NUMBER
L-2