Applicable Documents:

A. These Specifications and the requirements hereinafter will govern this project during the installation, guarantee and maintenance period.

Scope of Work:

A. The work specified by this Section of the Specifications and on the Plans consists of furnishing all labor, machinery, tools, apparatus, means of transportation, supplies, equipment, materials, services and incidentals necessary to complete the work as indicated on the Plans and in the Specifications, as well as all other related responsibilities, including all change and repairs incident thereto.

B. The work shall include, but not be limited to, furnishing material, root pruning where required, layout, protection to the public, excavation, installation, backfilling, grading, fertilizing, mulching, staking and guying where required, watering, pruning where required, sod installation, weeding, cleanup, maintenance and guarantee.

C. Quantities and Location: The Landscape Architect reserves the right to adjust the numbers and locations of the designated types and species to be used at any of the locations shown in order to provide for any modifications which might be necessary.

D. Investigation of Subsurface Conditions: The Contractor shall be responsible for making site subsurface investigations and examination as he or she chooses in order to become familiar with the character of the existing material and the construction conditions under which he or she will work. These subsurface investigations and examinations shall be included in the bid. The Contractor shall not receive separate, additional compensation for this.

E. The Landscape Contractor shall be paid for only those units that are installed at the time of request for payment. The contractor's unit prices shall be the basis for said payment. The final amount of payment may or may not be the total sum of the contract depending on the number of units installed.

F. Ten percent (10%) of the total contract price will be held as retainer for 90 days after final written acceptance.

G. The Landscape Contractor will coordinate his work with all other trades at the job site.

Quality Assurance:

A. The Landscape Architect may inspect trees, shrubs, and groundcover either at the place of growth or at the site before planting for compliance with the requirements for name, variety, size, and quality. The Landscape Architect retains the right to further inspect trees and shrubs for size and condition of balls and root system, insects, injuries, and latent defects, and try to reject unsatisfactory or defective material at any time during the progress of work. The Landscape Contractor shall remove rejected trees or shrubs within 7 days from the project site.

B. Responsibility for Assuring Quality Work:

(1) The Contractor's Superintendent shall speak English and be well versed in Florida plant material, planting operations, Plan and Specification interpretation, coordination with other contracts or service in the project area and coordination between the nursery and the project.

(2) All employees shall be competent and highly skilled in their particular job in order to properly perform the work assigned to them. The Contractor shall be responsible for maintaining the quality of the material on the project.

(3) The Contractor will comply with applicable Federal, State, County and local requirements governing landscape materials and work.

C. Grade Standards:

(1) Plant material shall be Florida #1 or better as set forth in the latest edition of the Florida Department of Agriculture's Grades and Standards for Nursery Plants.

(2) All plant material will be subject to the approval of the Landscape Architect for quality, size and color. Plants lacking the completeness or proper proportions, plants which are weak or thin, and plants injured by close planting in nursery rows will not be accepted. Plant materials which have been cut back from larger grades to meet certain specification requirements will be rejected.

(3) Plant material shall have normal, well developed branches and shall be vigorous plants, free from defects, decay, burns disfiguring roots, sun-scald injuries, abrasion of the bark, plant diseases, insect pest eggs, borers, and all forms of infestations or objectionable disfigurements.

Delivery, Handling and Storage:

A. Delivery and Handling:

(1) Movement of nursery stock shall comply with all Federal, State, and local laws, regulations, ordinances, codes, etc.

(2) Protect during delivery to prevent damage to root ball or dessication of leaves. Remove unacceptable plant materials immediately from the job site. Maintain and protect while stored at the site.

(3) Transport materials on vehicles large enough to allow plants not to be crowded and damaged. Plants shall be covered to prevent wind damage during transit.

B. Sod

(1) Deliver sod on pallets with root system protected from exposure to wind and sun. Deliver sod in quantities capable of being installed within 48 hours of cutting.

Submittals & Approvals

A. Written request for approval to substitute a plant species or a plants designation (IB45, UB45, CG etc.), type, grade, quality, size, quantity, etc. due to the non-availability of the material specified. Approval must be given by the Landscape Architect before the material is delivered and installed on the project. The Contractor must provide written proof that the specified plant material is unavailable.

B. Any request for the approval of an equal shall be in writing. Approval shall be given by the Landscape Architect before the material is delivered and installed on the project.

C. Submit three prints of shop drawings for any special conditions not covered in the details indicated. This shall be for approval by the Landscape Architect before they are implemented in the project.

D. If requested by the Owner or Landscape Architect, submit a schedule of all specimen plant material and collected plant material indicating the sources or suppliers of these materials and their locations for approval by the Landscape Architect before they are delivered and installed on the project. Also, two color photographs of each different item, showing different side views of the item shall be submitted with the schedule. Additional color photographs shall be submitted, if requested.

E. If requested by the Owner or Landscape Architect, submit a letter indicating the sources or suppliers of all sod and the grade to be supplied for approval by the Landscape Architect before it is delivered and installed on the project.

F. If requested by the Owner or Landscape Architect, submit a sample and analysis of all planting soil types for approval by the Landscape Architect before the material is delivered and installed on the project.
sample and analysis of the mulch for approval by the Landscape

H. If requested by the Owner or Landscape Architect, submit a

Architect before the material is delivered and installed on the project.

I. Submit three prints of shop drawing for all staking and guying methods to be used if the ones indicated in these Specifications and on the Plans are not to be implemented. staking and guying methods before they are implemented in the The Landscape Architect will approve all shop drawings of

project.

J. Submit in writing any hindrance to the owners routine maintenance or lack of, that may affect installed plant material growth or survival, that would affect the guarantee of plant material.

K. Submit in writing any hindrance to the timely completion of the installation.

L. Submit and Certificate of Inspection of plant material as may be required by State , local or Federal Authorities.

Substitutions:

A. When the specifies plant designation (IB45, UB45, CG etc.), type, grade, quality, size, quantity, etc. of a material is not available, the contractor will submit a written request, to the Landscape Architect, for a substitution along with written, documented proof that the plant designation (IB45, UB45, CG, etc.), type grade, quality, size, quantity, etc. of material is not available. The Landscape Architect shall approve all substitutions before they are delivered and installed. Do not deliver and install any material which is anticipated to be a substitute, before it has been submitted in writing and approved as a substitute by the Landscape Architect. Also, any changes, if any, to the contract amount because of an approved substitute, shall be established in writing between the Owner and the Contractor before the material substitute is delivered and installed on the project.

Guarantee:

A. The guarantee shall not begin until the day final written acceptance is given.

B. All sod shall be guaranteed for a minimum of 60 days from the time of final acceptance. All trees, palms, and shrubs are to be guaranteed for one year from the time of final acceptance.

C. The guarantee shall be null and void for plant material which is damaged or dies as a result of "Acts of God" limited to hail, freeze, lightning, and winds which exceed hurricane force, providing the plant was in a healthy growing condition prior to these "Acts of God".

D. At the option of the Owner, and inspections may be made at the end of the guarantee period, but prior to the last day of the guarantee period.

Replacement:

A. The guaranteeing of a plant material shall be construes to mean the complete and immediate replacement of plant material within 3 calendar days if it is:

(1) Not in a healthy growing condition and thus renders it below the minimum quality indicated in the Specifications.

(2) There is a question as its ability to survive after the end of the guarantee period thus would render it below the minimum quality indicated in the Specifications.

(3) It is dead.

B. The 3 calendar days may be extended due to seasonal conditions, availability, preparation time such as root pruning, etc., only if approved by the Landscape Architect in advance. The extended time shall be negotiated between all parties concerned, but must receive final approval by the Landscape Architect.

C. Size, Quality, and Grade.

(1) Replacement plant material shall be one of the same species quality and grade as that of the plant to be replaced. The size of the replacement shall not necessarily be the same size as the original specified plant at its initial planting . The replacement shall be of equal size to the plant to be replaced at the time it has been determined that it must be replaced.

However, if for some reason, the plant to be replaced is smaller than the size originally specified, the replacement shall be at least equal to the originally specified size.

(2) Replacements shall be guaranteed for a period equal to the originally specified guarantee. This guarantee period shall begin at time of acceptable replacement.

(3) Final payment to the Contractor shall not relieve he or she of the guarantee obligations.

Plan and Specification Interpretation

A. On the Plans, figured dimensions shall govern over scaled dimensions. If any error or discrepancy is found in the Plans and Specifications, the Contractor shall refer the same to the Landscape Architect for an interpretation and decision. In resolving conflicts between the Plans and Specifications, THE PLANS SHALL GOVERN over the Specifications. The Landscape Architect shall have the right to correct apparent errors or omissions in the Plans and Specifications and to make such interpretations as he or she may deem necessary for the proper fulfillment of the intent of the Plans and Specifications.

Permits and Codes:

A. The Contractor shall procure all necessary permits to accomplish all the work.

B. The Contractor is responsible for performing all work in accordance with all applicable regulations, ordinances and code requirements from the appropriate city, county, state and/or Federal jurisdiction the project is located in.

Changes and Additional Work:

A. The Contractor shall not start on any changes or additional work in the project until a written agreement setting forth the adjusted contract amount has been executed by the Owner and the Contractor. Any work performed on any changes or additional work prior to the execution of a written agreement may or may not be compensated for.

"Job Site, "Project Site Etc.":

A. The words "job site", "project site", "job", "project" and "site" shall be synonymous with one another when used in these documents.

Safety On and Off the Job Site:

A. In performing the scope of work, all safety on or off the job site shall be the sole responsibility of the Contractor. The Landscape Architect shall not be responsible for safety on or off the job site.

The Landscape Architect's on site observations or inspections shall be only for the purpose of verifying that the Plans and Specifications are being implemented properly. The Landscape Architect's on site observations or inspections are not for safety on or off the job site.

On Site Observations and Inspections:

A. The Contractor shall make requests for on site observations or inspections 48 hours in advance and they shall be in writing. If directed by the Landscape Architect.

B. If an inspection is related to completion and final acceptance, the request shall be made in writing 48 hours in advance.

C. An inspections at the growing site does not preclude the right of rejection at the project site.

D. The fact that the Landscape Architect has not made an early on site observation or inspections to discover faulty work or work omitted, or work performed which is not in accordance with the contract requirements, shall not bar the Landscape Architect from subsequently rejecting such work at a later time.

E. The Landscape Architect's on site observations or inspections shall be only for the purpose of verifying that the Plans and Specifications are being implemented properly. The Landscape Architect's on site observations or inspections are not intended to take charge, direct, run or manage the implementation o the Plans and Specifications or take charge, organize or manage the Contractor while performing the scope of work indicated in these Specifications.

Plant Material

A. Plant material shall be nursery grown except:

(1) Where specified as collected material

(2) Where approved by the Landscape Architect for such plant material which is only available as a collected item from sources such as residences.

B. Except where another grade is specifically called for in the Plans, all plant material, including collected material if specified, shall be no less than Florida #1 or better, at the time of installation and final acceptance. Existing plant material to remain or to be relocated shall be excluded from this requirement.

C. Habit of Growth: All plant material shall have a habit of growth that is normal for that species and shall be sound, healthy, vigorous and free from insects, plant diseases and injuries.

D. Measurement of Trees, Palms, Shrubs, and Groundcover:

(1) Trees, Shrubs, and Groundcover:

a. Rootball: Requirements for the measurement of minimum rootball diameter and depth shall comply with the Florida Department of Agriculture's "Grades and Standards for Nursery Plants, Part I and Part 2" as follows:

CALIPER	MIN. BALL DIA.	MIN. BALL DEPTH
1 - 1.5"	16"	75% of dia.
1.5 - 1.75"	20"	65% of dia.
1.75 - 2"	22"	65% of dia.
2 - 2.5"	24"	65% of dia.
2.5 - 3.5"	26"	65% of dia.
3.5 - 4"	28"	65% of dia.
4 - 4.5"	30"	60% of dia.
4.5 - 5"	32"	60% of dia.
5 - 5.5"	34"	60% of dia.
5.5" or more	Increase in proportion	60% of dia. up to 48", then decrease in proportion for larger size diameter.

b. Height: The height of plant material shall be measured from finish grade and continue up to where the main mass of the plant uniformly ends. The height shall not include any singular or isolated parts of the plant, such as leaves, shoots, branches, limbs or fronds, which extend out beyond the main mass of the plant.

E. Die-Back and Leaf Drop: plant material showing signs of die-back of leaf-drop shall not be accepted and must be removed from the project immediately if so directed by the Landscape Architect. Plant material with tendencies toward leaf-drop or die-back must be root pruned early enough to provide a sound network of hair roots prior to relocation

F. Mechanical Destruction of Foliage: Mechanical destruction of foliage resulting from root pruning shall not affect more than 10% of the total foliage prior to planting on the project. Loss of foliage caused by seasonal change will be accepted.

G. Spanish Moss: If Spanish Moss (Tillandsia usneoides) exists on plant material, it shall be completely removed prior to planting on the project

H. Palms:

(1) Remove a minimum of fronds from the crown of the palms to facilitate transporting and handling.

(2) Palm frond tying shall be as set forth in the latest edition of the Florida Department of Agriculture's "Grades and Standards for Nursery Plants". Wrapping palms shall be at the option of the Contractor. The Landscape Architect may direct the Landscape Contractor to untie Palm fronds to accomodate an owners "grand opening". The Contractor may retie the palm after the event. This untying will not affect the guarantee or increase in additional cost to the owner.

(3) To reduce head volume, Palm fronds may be taper trimmed by not more than one-third.

(4) Palms with mechanical damage, such as from cables, chains, equipment and rails, shall be rejected.

I. Chlorosis: The allowable level of Chlorosis in foliage shall be set forth in the latest edition of the Florida Department

Planting Soil:

A. All plant material, unless indicated otherwise, shall be installed with a planting soil composed of sandy loam (50% sand , and 50% muck) typical of the locality. The soil must be taken from ground that has never been stripped, with a slight acid reaction (5.5 to 6.5 ph) and without an excess of calcium or carbonate. Soil shall be delivered in a loose friable condition.

Water:

A. Potable, from municipal water supplies or other sources which are approved by a public health department.

Mulch:

A. Mulch shall be:

(1) "Florimulch" or other approved recycled mulch (approval by Landscape Architect or other governing agency)

Fertilizer:

A. New and existing Trees and Palms:
Fertilize with 8-2-12 palm fertilizer with micronutrients per manufacturer's recommendations.

B. New and existing Shrubs, and Groundcover:
Fertilize with 8-2-12 palm fertilizer with micronutrients at a rate of ½ lb. per 1000 SF of area.

C. Annuals: Fertilize with Osmocote - Sierra blend 14-14-14 or approved equal.

D. Composition and Quality: All fertilizer shall be uniform in composition and dry. Granular fertilizer shall be free flowing and delivered in unopened bags. All bags containers or boxes shall be fully labeled with the manufacturer's analysis.

E. All fertilizer shall comply with the State of Florida fertilizer law.

Staking and Guying:

A. Staking and guying shall be the responsibility of the Landscape Contractors. Staking and guying shall not be attached directly to the plant material with nails. Also, barbed wire used in staking and guying shall not be attached to the plant material with nails. Any method of staking and guying other than indicated in the details, will receive approval from the Landscape Architect prior to their installation. Under no circumstances will approval be given to allow the plunging, burying, or planting of trees or palms so that the top of the grade, in order to eliminate the need or requirement, of staking or guying.

B. The Contractor is responsible for performing all staking and guying in accordance with all applicable regulations, ordinances and code requirements from the appropriate local jurisdiction the project is located in.

However, no guarantee is implied that the Plans are accurate or complete. It shall be the responsibility of the Contractor to verify the location of all underground utilities, structures, etc., by hand excavation or other appropriate measures before performing any work that could result in damage or injury to persons, utilities, structures or property. The Contractor shall make a thorough search of the site for utilities, structures, etc., before work is commenced in any particular location.

(2) The Contractor shall take immediate steps to repair, replace, or restore all services to any utilities or other facilities which are disrupted due to his or her additional outside services which may be necessary to prosecute repairs on a continuous "around the clock" basis until services are restored. He or she shall also provide and operate any supplemental temporary services to maintain uninterrupted use of the facilities. All costs involved in the repairs and restoring disrupted service resulting from negligence on the part of the Contractor shall be borne by the Contractor and he or she shall be fully responsible for any and all claims resulting from the damage.

(3) Should utilities, structures, etc, be encountered which interfere with the work, the Landscape Architect shall be consulted immediately in order for a decision to be made on the relocation of the work so it will clear the obstruction, if the obstruction cannot be relocated.

(4) The Contractor shall not purposefully disrupt or disconnect any type of utility whatsoever without first obtaining the written permission of the Landscape Architect. Requests for disconnection must be in writing and received by the Landscape Architect at least 72 hours prior to the time of the requested interruption.

Grades:

A. It is shall be the responsibility of the Contractor to provide the final grading so the final level for planting areas conforms to surrounding grades and is at the proper elevation with relation to walks, paving, drain structures and other site conditions, unless indicated otherwise on the plans.

B. Plant Area Not to Pavement: All planting areas next to pavement areas, such as, but not limited to, curbs, roads, drives, walks, terraces, decks and slabs shall be set so that the TOP OF THE MULCH IS 1 INCH BELOW THE TOP OF THE PAVEMENT AREA or as indicated otherwise on the plans.

Preparation:

A. Staking Plant Locations: Stake or mark plant material locations prior to plant hole excavation, based on information from the plans.

B. Spacing of Groundcover & Shrubs: The location of a planting bed (shrub or groundcover) next to another bed, walkway, structure, etc., shall have the plants along the perimeter spaced so that the plants can mature properly without growing into the other bed, walkway, structure, etc.

C. The rootballs of B&B plants which cannot be planted immediately after delivery must be kept moist and in an insure protection from drying winds and sun. All plants shall be maintained as necessary until planting.

D. Subsurface Conditions: Some or all work areas may be compacted and/or contain existing material such as limerock, which may interfere with adequate vertical drainage and/or proper plant survival and growth and therefore removal of the material is part of the scope of work for the project. The Contractor shall be responsible for insuring adequate drainage in these areas and shall remove this existing material, as required, by such means as augering, drilling or rototilling. If necessary, excavate to a depth beyond the required excavation depth for the plant hole, in order to insure proper vertical drainage necessary for plant survival and growth.

E. Remove undesirable existing vegetation present on the project by use of chemicals and/or mechanical means which are acceptable to the Landscape Architect. Apply chemicals as recommended by the manufacturer. Exercise care to avoid any misuse of the chemicals which will cause detrimental residual conditions. Care shall also be used so that any final grades which have been established are not altered.

F. Excavation of Plant Holes:

(1) General:

a. Excavation of plant holes shall be roughly cylindrical in shape with the sides approximately vertical. The Landscape Architect reserves the right to adjust the size and shape of the plant hole and the location of the plant in the hole to compensate for unanticipated structures or unanticipated factors which are a conflict.

b. The excavated material from the plant holes shall not be used to backfill around the plant material. Such material shall be disposed of either on the project site or off the site, as directed by the Landscape Architect.

Installation:

A. General: The Contractor shall lay out on the ground the locations for the plants and outlines of areas to be planted and obtain approval of the Landscape Architect before excavation is begun. The Landscape Architect may adjust the location of specifies plant materials prior to planting.

B. Setting of Plants:

(1) All plants shall be set at the proper level so that after settlement, a normal or natural relationship between the crown of the plant and the surrounding ground surface exists. The plants shall be set vertically. After excavation of planting pits and prior to placement of the plant material, fill the planting pits with water. The plant hole shall be backfilled with topsoil mixture placed in layers around the roots or ball. Each layer shall be carefully tapped in place. When partially backfilled and compacted, the hole shall be filled with water and the soil allowed to settle around the roots or ball ties shall be cut and at the burlap peel down 1/3 from the top of the rootball and cut or adjusted to prevent the formation of air pockets before applying the last layer. After the water has been absorbed the plant hole shall be filled with topsoil mixture and tapped to grade. Subsoil removed from tree pit shall not be mixed or used in any way with the topsoil mixture.

(2) All sabal and queen palms shall be backfilled with clean thoroughly washed in during the planting operation.

(3) Water Saucer: A 4-inch high water saucer shall be formed around the rim of each individual tree or palm pit and maintained in place.

(4) Plant material of the shrub category and smaller must be handled by the ball only. Plant material too large for hand handling, if moved by winch or crane, must be thoroughly protected from chafe, rope, or cable marks. Girdling, bark slippage, limb breakage and any other damage that might occur by improper handling or negligence.

(5) All trees and palms shall be handled by both the trunk and rootball at the same time and not by the trunk only. Trunks shall be thoroughly protected.

(6) Container grown plant material shall be carefully removed from the container so as not to disturb the root system.

C. Sod:

(1) Soil Preparation: Within 24 hours prior to placing sod, prepare the soil in the following manner:

a. Uniformly apply formula 8-8-8 fertilizer over the area at a rate of 25 pounds per 1,000 square feet.

b. Remove stones and foreign matter over two inches in diameter from the top two inches of soil.

c. Grade the sod area so that the top of the sod will be at finished grade after rolling and tamping.

(2) Placing Sod:

a. Place sod with staggered joints closely butted, tamped or rolled to an even surface to the required finished grade. Avoid continuous seams along lines of water flow in swales. Place sod in rows at right angles to slope.

b. Water sod every day for a period of three weeks.

c. Fertilize sod three weeks after planting with 12 pounds of 8-8-8 formula fertilizer per 1,000 square feet of lawn.

d. No sod shall be used which is not certified as being free of the imported fire ant. Before any sod is brought to the site, furnish a written certification from the nursery from pest control officials of either State or Federal Department of Agriculture.

(3) Maintenance of Sod:

a. It shall be the responsibility of the Contractor to replace any areas of sod that are not in healthy growing condition.

b. The Contractor shall completely maintain the sod until final acceptance by mowing or spraying as necessary.

D. Planting Beds:

(1) Spread six inches of topsoil mixture uniformly over the entire planting area.

(2) Spread 50% organic fertilizer at a rate of 4 pounds per 1,000 square feet uniformly over the groundcover area.

(3) Rotor rtx, or by other approved method, to a depth of twelve inches.

(4) Fine grade to remove all trash, rocks, and debris to depth indicated.

(5) Regrade to finish grade before adding two inches mulch.

(6) Thoroughly water and firm the plants into the soil mixture.

E. Mulch:

(1) Areas to be mulched shall have existing weeds and vegetation removed, including root systems, before applying mulch.

(2) Grades are to be uniform. Grade areas which are rough and uneven. Fill in voids and holes with planting soil or other approved fill material.

(3) The mulch shall be uniformly applied to a depth of approximately 3 inches, or other depth as indicated otherwise, over all shrub and groundcover areas, around trees and palms in sod areas and any other areas as indicated on the plans.

F. Watering:

(1) Initially water the plant material to develop uniform coverage and deep water penetration into the full depth of the root zone. Avoid erosion, puddling, and washing soil away from the roots.

(2) Provide continuous watering of plant material after planting in order to achieve optimum growth conditions to establish plants. Water shall be applied as necessary and the amount of water and frequency of watering shall be based on the specific needs of each plant type, the time of year, amount of rainfall and other environmental conditions it is exposed to. This watering shall begin after the plant is planted and continue until final acceptance. All trees and palms shall be watered, only during this period. Do not rely on the irrigation system, if there is one, to achieve this task. It cannot deliver the volume of water required, without flooding areas beyond where water is needed. Avoid over watering other landscape material, shrubs, groundcover and sod may be watered by using the irrigation system, if there is one hand water during this period.

(3) If there is no source for water available at the project, such as a hose bib (s) or fire hydrant (s) if approved for use, then the Contractor shall be responsible for supplying water for watering, by such means as a water truck or tank.

G. Rotor rtx, or by other approved method, to a depth of twelve inches.

(1) The amount of general pruning and thinning shall be limited to the minimum necessary to remove dead or injured twigs and branches and to compensate for the loss of roots as a result of transplanting operations. Pruning and thinning shall be done in such a manner as not to change the natural habit or shape of a plant.

(2) The Landscape Architect shall be contacted prior to performing any major pruning and thinning. The Landscape Architect may elect to be present during any pruning and thinning.

H. Weeding:

(1) In the event that weeds or other undesirable vegetation becomes prevalent to such an extent that they threaten plant material, they shall be removed as directed by the Landscape Architect. This condition shall apply until final acceptance.

I. Removal of Plant Materials:

(1) All plant material to be removed shall be removed completely, including the rootball, from the job or as directed by the Landscape Architect. The remaining hole shall be filled with suitable material or planting soil as directed by the Landscape Architect.

J. Existing Plant Material to be Relocated:

(1) All existing plant material to be relocated shall be root pruned a minimum of 90 days or for a period as determined by the Landscape Architect prior to relocation.

(2) Rootball: Requirements for the measurement of minimum rootball diameter and depth shall comply with requirements as set forth in the latest edition of the Florida Department of Agriculture's "Grades and Standards for Nursery Plants, Part I and Part 2", as follows:

CALIPER	MIN. BALL DIA.	MIN. BALL DEPTH
1 - 1.5"	16"	75% of dia.
1.5 - 1.75"	20"	65% of dia.
1.75 - 2"	22"	65% of dia.
2 - 2.5"	24"	65% of dia.
2.5 - 3.5"	26"	65% of dia.
3.5 - 4"	28"	65% of dia.
4 - 4.5"	30"	60% of dia.
4.5 - 5"	32"	60% of dia.
5 - 5.5"	34"	60% of dia.
5.5" or more	Increase in proportion	60% of dia. up to 48", then decrease in proportion for larger size diameter.

(3) Root pruning shall be accomplished by digging a trench completely around the plant about 18 inches deep. All exposed roots shall be cut off smoothly.

(4) A mixture of good organic fertilizer and planting soil shall be used to refill the trench.

(5) Plant material which is in soil of a loose texture, which does not readily adhere to the root system, especially in the case of large plants or trees, shall have the rootball wrapped in burlap and then wire, if directed by the Landscape Architect. For wire, hog wire shall be used and it shall be placed around the rootball before before the plant is removed from the hole for relocation. The wire shall be looped and tensioned until the burlapped ball is substantially packaged by the tightened wire resting formed by the hog wire, so as to prevent disturbance of the loose soil around the roots during handling.

Cleanup:

A. Disposal of Trash: All debris and other objectionable material created through planting operation and landscape construction shall be removed completely on a daily basis from the job or as directed by the Landscape Architect. Any paved areas including curbs and sidewalks which have been strewn with soil, sod sales, fertilizer or other debris shall be thoroughly swept.

B. Excess Fill: All excess fill which results from the installation of the project shall remain the property of the Owner and remain on the project at the option of the Owner. All excess fill which the Owner does not want shall be removed and disposed of from the project at no additional cost. No excess fill shall be removed or disposed of from the site until approved by the Owner or Landscape Architect. Excess fill shall be disposed of as directed.

Protection:

A. Responsibility for Protection and Restoration of Property: The Contractor shall be responsible for all damage or injury to person or property.

B. Protection Against Mechanical Damage: The Contractor's responsibility for protection against mechanical damage shall include providing protection from vehicles and providing warning signs and barricades as might be necessary and he or she shall repair, restore and replace all property which becomes damaged as a result of any negligence of the Contractor or his or her employees in complying with these requirements.

Completion and Final Acceptance:

A. Upon written notice from the Contractor of the presumptive completion as defined herein, of the entire project, the Landscape Architect, along with other appropriate parties, will make an inspection within 48 hours after the written notice. If all construction provided for and compensated by the contract is found to be completed in accordance with the contract Plans and Specifications, such inspection shall constitute the final inspection. The Contractor shall be notified in writing of final acceptance as of the date of the final inspection.

B. If, however, the inspection mentioned in paragraph A, above, discloses any work, in whole or in part, as being unsatisfactory, final acceptance shall not be given and the Owner and/or Landscape Architect will give the Contractor the necessary instructions or "punch lists". Upon correction of work, another inspection will be made which shall constitute the final inspection, provided the work has been satisfactorily completed. In such event, the Owner or their representative shall make the final acceptance and notify the Contractor in writing of this final acceptance as of the date on this final inspection.

C. Completion of the work shall mean the full and exact compliance and conformity with the provisions expressed or implied in the Plans and Specifications including any and all "punch lists" which may be issued during certain items of work which were found unsatisfactory or required completion or corrective action.

D. Final acceptance shall not be given until all construction provided for and contemplated by the contract is inspected and found to be completed in accordance with contract Plans and Specifications.

E. Final acceptance shall not be official until acknowledged in writing by the Owner or their representative.

F. The guarantee shall not begin until the day final acceptance is given.

Certain responsibilities prior to Final Acceptance: The following is a partial list of certain responsibilities. It is not a complete list, but only a summary of certain responsibilities.

A. The Contractor is responsible for the entire project prior to written acceptance.

B. The Contractor is responsible for safety on and off the job site.

C. Maintenance Prior to Final Acceptance:

(1) Maintenance shall begin immediately after each plant is planted and continue until final acceptance.

(2) Plant maintenance shall include watering, mowing, edging, pruning, weeding, cultivating, repair of erosion, mulching, tightening and repairing of guys, stakes, braces, etc., replacement of sick or dead plants, replacement of sod areas which do not become established, resetting plants to proper grades or upright position, maintenance of the watering saucer, litter removal, and all other care needed for proper growth of the plants.

(3) Immediately after planting, each plant shall be watered and the watering period shall continue until final acceptance. Refer to the heading "Watering", which is in Part 3 of these Specifications, for additional requirements.

(4) All plant material shall be weeded once a week, in the event that weeds or other undesirable vegetation becomes prevalent to such an extent that they threaten plant material, the weeds shall be removed as directed by the Landscape Architect. If necessary, the plant material, mulch, sand and/or planting soil shall be replaced as needed to eliminate seeds or undesirable vegetation at the expense of the Contractor.

(5) Edge and mow sod once a week.

(6) Edge and weed all shrubs, groundcover and flower beds once a week.

(7) Remove all litter once a week.

(8) Spraying and Dusting: Contractor shall do all seasonal spraying and/or dusting of all planting, as needed, for complete control of pests and diseases. The materials and methods shall be in accordance with the highest standard horticultural practices and as recommended by the County Agent, and approved by the Landscape Architect, prior to implementation.

(9) Sod: After the sod has been laid, tamped and top dressed, all areas and parts of area which fail to show uniform growth and health, shall be remodelled, repeatedly if necessary, until all sodded area are covered with a satisfactory lawn. Damage resulting from erosion, gullies, washouts, or other causes shall be repaired by filling with topsoil, spraying, reforestiling, and resodding by the Contractor at his or her expense.

(10) Protection: Plant material shall be protected against trespassing and damage. If any plants become damaged or injured, they shall be treated or replaced as directed and in compliance with the Specifications at no additional cost. No work shall be done while or over planting areas or adjacent to plants without proper safeguards and protection.

(11) Keep sidewalks, curbs and gutters, driveways, parking areas, streets, terraces, decks, and pavers free of plant cuttings, debris and stains.

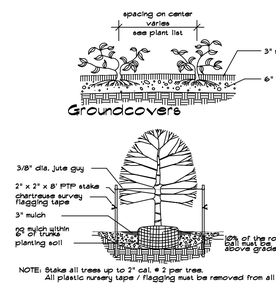
D. Material rejected during the course of construction shall be removed within 3 working days and replaced before an inspection for completion will be scheduled.

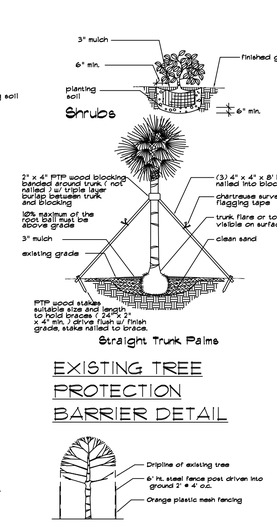
E. Survival and Conditions: The Contractor shall be responsible for the proper maintenance and the survival and condition of all landscape items from the time a landscape item is installed until final acceptance.

F. Replacement: Replacement of plant material shall be the responsibility of the Contractor including the possible replacement of plant material resulting from removal by theft or vandalism or acts of negligence on the part of others. All plant material shall be alive and in good growing condition for each specific kind of plant at the time of final acceptance.

G. Rating: The rating of plant material according to Florida Grades and Standards shall be equal to or better than called for on the Plans and in these Specifications at the time of final acceptance.

PLANTING DETAILS





GENERAL NOTES

1. ALL PLANTS TO BE FLORIDA NO. 1 OR BETTER.
2. NO SUBSTITUTIONS WILL BE ACCEPTED WITHOUT PRIOR WRITTEN APPROVAL BY THE LANDSCAPE ARCHITECT.
3. ALL LANDSCAPED AREAS TO RECEIVE 100% IRRIGATION COVERAGE BY AN AUTOMATIC, UNDERGROUND SPRINKLER SYSTEM EQUIPPED WITH A RAIN SENSOR. IF THE SOURCE OF WATER FOR THE IRRIGATION SYSTEM IS NOT POTABLE OR RECLAIM WATER, AND THE WATER STAINS SITE IMPROVEMENTS, SUCH AS BUILDINGS, PAVING, ETC., THE CONTRACTOR WILL NEED TO INSTALL AN INJECTION TYPE RUST CONTROL SYSTEM.
4. QUANTITIES ON PLANT MATERIALS ARE FOR CONVENIENCE ONLY. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ALL PLANTS SHOWN ON PLANTING PLANS WHEN DISCREPANCIES OCCUR BETWEEN PLANT LIST AND PLANTING PLANS. THE PLANS ARE TO OVERRIDE THE PLANT LIST IN ALL CASES. SOD QUANTITY IS TO BE DETERMINED BY CONTRACTOR PRIOR TO BIDDING
5. CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES TO AVOID DAMAGE.
6. CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL MATERIALS, TOOLS, EQUIPMENT, LABOR, AND PLANTS NECESSARY FOR THE PROPER PLANTING OF ALL REQUIREMENTS OF THE PLANTING DETAILS.
7. ALL GROUNDCOVER BEDS TO ABUT PARKING, BUILDING, SIDEWALKS, ETC., IN A PERPENDICULAR LINE.
8. ALL TREES AND PALMS TO BE STAKED AND GUYED.
9. ALL PLANTED AREAS ARE TO BE MULCHED WITH "FLORIMULCH", TO A DEPTH OF 3".
10. ALL PLANT MATERIAL TO BE BACKFILLED WITH 50% CLEAN MUCK AND 50% SAND AND BE FERTILE, AND PREABLE.
11. GROUNDCOVER AND SHRUBS TO BE LAID OUT IN A UNIFORM AND CONSISTENT PATTERN.
12. THE CONTRACTOR SHALL LAY OUT ON THE GROUND THE LOCATIONS FOR THE PLANTS AND OUTLINES OF AREAS TO BE PLANTED. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE LANDSCAPE ARCHITECT BEFORE EXCAVATION BEGINS. THE LANDSCAPE ARCHITECT MAY ADJUST THE LOCATION OF SPECIFIED PLANT MATERIALS PRIOR TO PLANTING.
13. TREES, PALMS, SHRUBS AND GROUNDCOVERS TO BE GUARANTEED TO BE GUARANTEED FOR ONE (1) YEAR AFTER FINAL WRITTEN ACCEPTANCE IS GIVEN BY OWNER OR LANDSCAPE ARCHITECT. CONTRACTOR IS RESPONSIBLE FOR PLANT MAINTENANCE UNTIL THE TIME OF WRITTEN ACCEPTANCE.
14. LANDSCAPING IN SAFE DISTANCE TRIANGLES SHALL BE MAINTAINED TO PROVIDE UNOBSTRUCTED VISIBILITY AT A LEVEL BETWEEN 2' AND 8' ABOVE FINISHED GRADE.
15. ALL PROHIBITED PLANT SPECIES (AS IDENTIFIED BY THE CITY, COUNTY, STATE) SHALL BE ERADICATED FROM THE SITE. THIS INCLUDES BUT IS NOT LIMITED TO MELALEUCA, BRAZILIAN PEPPER AND AUSTRALIAN PINE.
16. ALL EXISTING AND NEWLY CREATED PLANTING BEDS TO BE CLEANED AND FREE OF WEEDS AND DEBRIS AND EXCAVATED AS REQUIRED TO FULFILL PLANTING SOIL REQUIREMENTS OF THE PLANTING DETAILS.
17. FILL HOLES WHERE EXISTING TREES OR PLANT MATERIAL HAVE BEEN REMOVED TO PROVIDE LEVEL SURFACE WITH SURROUNDING AREA AND BOOT OVER IF NEW PLANTING BEDS ARE NOT TO BE INSTALLED.
18. ALL PLANTING BEDS THAT ARE ADJACENT TO PAVING ARE TO BE LOWER THAN THE ADJACENT PAVING SO THAT RUNOFF (MULCH, SOIL) FROM THE BED DOES NOT RUN ONTO THE ADJACENT PAVING.
19. ALL PLANTING ISLANDS WITHIN THE PARKING LOT AND PLANTING AREAS ADJACENT TO THE PARKING LOT AREA