

GENERAL PLANTING SPECIFICATIONS:

1. Scope:

The work includes furnishing all plants, materials, equipment and labor necessary for planting of plant materials indicated on the drawings and in these specifications. A list of plants is attached to these specifications.

2. Plant Materials & Protection:

- A. All plant materials shall be nursery grown unless otherwise noted.
- **Spread (or Spr.):** Indicates average spread to midpoint of current season's growth.
  - **Height (or O.A.):** Indicates overall height from top of ball to midpoint of current season's growth.
  - **C.T.:** Indicates clear trunk measurement from top of ball to first branching (see tree & Palm Planting Diagrams)
  - **Meter of Wood (or Meter of Hard Grey Wood):** Indicates measurement of Palms from top of ball to top of solid trunk before start of frond stalks or green "boots". (See Palm Planting Diagram)
- B. **Quantities:**  
All quantities indicated on the plant list are intended as a guide for the bidders and does not relieve the bidder of his responsibility to do a comprehensive plant take off. Should a discrepancy occur between the bidder's take off and the plant list quantity, the Architect/Landscape Architect is to be notified for clarification prior to the submission of bids.
- C. **Quality and Sizes:**  
Plants shall have a habit of growth that is normal for the species and shall be healthy, vigorous and equal or exceed the measurements specified in the plant list, which are the minimum acceptable sizes. Plants shall be measured with branches in normal position. Pruning (Section IV.J) should not reduce acceptable size and shape of tree, and should be done after acceptance of Architect/Landscape Architect. Requirements for measurements, branching, grading, quality, bailing and burlapping of plants in the plant list generally follow the code of standards currently recommended by the American Association of Nurserymen, Inc., in the American Standard for Nursery Stock. Plant materials shall be graded Fancy No.1 or better as outlined under U.A.E. Grades & Standards for nursery plants. Plants that meet the requirements specified, but do not have the normal balance of height and spread typical for the respective plant, shall not be accepted. All plant material to be healthy, pest and disease free.

- D. **Substitution:**  
Plant substitution requests by the Contractor will be considered by the Architect/Landscape Architect only upon submission of proof that any plant is not obtainable in the type or size specified. The Landscape Architect shall determine the nearest equivalent replacement in an obtainable size and variety. The unit price of the substitute item shall not exceed the bid item replaced, without approval of the Owner.

E. Protection of Plants:

1. Root Protection

A. Balled and Burlapped Plants (B & B) shall be dug with natural balls of earth of sufficient diameter and depth to encompass the fibrous and feeding root system necessary for full recovery of the plant. Balls shall be firmly wrapped with burlap or similar materials and bound with twine, cord, or wire mesh. All collected plants shall be balled and burlapped.

B. Container Grown Plants: Plants grown in containers will be accepted as B & B, providing that all other specified requirements are met. Container grown plants shall meet plant sizes as specified on the plant list and on the plans, and shall not be governed by container sizes. Minimum root balls or container grown material shall be no more than 25% less proportionately in size than that stated in "Grades & Standards" for nursery plants. These plants shall have been grown in the container for a maximum of two years prior to installation and shall exhibit a fully developed root system when removed from the container.

2. Protection During Transporting:  
All plant material shall be protected from possible bark injury or breakage of branches. All plants transported by open trucks shall be adequately covered to prevent windburn, drying or damage to plants.

3. Protection After Delivery:  
Plants which cannot be planted immediately upon delivery to the site shall be covered with moist soil, mulch, or other protection from the drying of wind and sun. All plants shall be watered as necessary until accepted. Storage period shall not exceed seventy-two (72) hours.

4. Protection of Palms:  
Only a minimum of fronds shall be removed from the crown of the palm trees to facilitate moving and handling. Clear trunk (C.T.) shall be as specified after the minimum of fronds have been removed. Coconut palms shall be "hard" trees grown in soil or sand. Cabbage palm buds shall be tied with a biodegradable cord to be left in place until the tree is well established in its new location. All palms shall be triple braced and staked with new, clean lumber at least 6" in length to resist tree displacement.

5. Protection During Planting:  
Trees moved by winch or crane shall be thoroughly protected from chain marks, girdling or bark slippage by means of other approved methods.

3. Materials:

- A. Commercial Fertilizer: Commercial fertilizer shall be organic fertilizer containing nitrogen, phosphoric acid and potash in equal percentages, 6-6-6 with micro nutrients.

Nitrogen shall be not less than 50 % from organic source. Inorganic chemical nitrogen shall not be derived from the sodium form of nitrate. Fertilizers shall be delivered to the site in unopened original containers, each bearing the manufacturer's guaranteed analysis. Any fertilizer that becomes caked or otherwise damaged shall not be acceptable.

The following shall be sterilized, certified and free of seed:

- B. Peat: Peat shall be horticultural peat composed of not less than 60% decomposed organic matter by weight, on an oven dried basis. Peat shall be delivered to the site in a workable condition, free from lumps.
- C. Planting Soil: Planting soil for all plantings shall be sandy loam and shall contain a 25% minimum amount of decomposed organic matter. There must be a slight acid reaction to the soil with no excess of calcium carbonate. Planting soil shall be free from clay, stones, plants, roots, and other foreign materials which might be a hindrance to planting operations or be detrimental to good plant growth and shall be delivered in a loose friable condition and applied in accordance with the planting specifications and details.
- D. Mulch: Mulch material to be shredded cypress mulch B grade or better, moistened at time of installation to prevent wind displacement. Alternate mulch material may be noted elsewhere in these drawings.
- E. Drainage Stone (when applicable): Drainage stone shall be gravel or crushed stone reasonably free of sharp edges -  $\frac{1}{2}$ "-1  $\frac{1}{2}$ " in diameter - as required in the bottom of raised planters.
- F. Filter Fabric (when applicable): Filter fabric, as required between gravel and soil in planters to be Densit "Filter-fabric" (800)888-4664 or equal.

4. Planting Operations:

- A. **Soil Preparation:**  
All existing soil and new fill/berms shall be treated with an approved weed killer such as "Round Up" according to manufacturer's specifications.
- B. **Layout:**  
Location for plants and outlines of areas to be planted are indicated on the drawings. All plant locations shall be staked in the field by the Contractor, to the satisfaction of the Architect/Landscape Architect. Where construction or utilities below ground or overhead are encountered or where changes have been made in the construction, necessary adjustments will be approved by the Architect/ Landscape Architect.
- C. **Excavation for Planting:**  
Excavation of holes shall extend to the required sub-grades as specified hereunder. Plant pits shall be circular in outline and shall have a profile which conforms to the "Typical Tree & Palm Planting Details" (attached). The minimum depth of plant pits specified below shall be measured from the finishing grade. Shrub planting beds shall be "bed-prepared" and not "pit-prepared".
- D. **Balled and Burlapped Plants:**  
After final setting, loosen wrappings of balled and burlapped plants and roll wrappings back from top of ball, leaving ball unbroken. Cut off excessive amounts of burlap and remove in sufficient quantity to eliminate creation of voids upon decomposition.
- E. **Container Grown Plants:**  
Container grown plants shall, when delivered, have sufficient root growth to hold earth intact when removed from container. They shall not be root bound. Containers shall be removed to prevent damage to plant or root system according to diagrams (attached). Plant pits for container materials shall be formed flat on the bottom to avoid air pockets at the bottom of root balls.
- F. **Pit Sizes:**  
Minimum diameter (Width) and depth of planting pits for balled and burlapped, and container grown plants shall be as follows:

-Diameter-Trees: 18" greater than diameter of ball or spread of roots.  
-Diameter-Shrubs: 6" greater than diameter of ball or spread of roots.  
-Depth-Trees and Shrubs: 4" greater than depth of ball or roots to provide 4" of topsoil backfill under the root ball. (Large, heavy trees and shrubs shall sit directly on excavated pit bottom to prevent settlement)  
-Depth-Vines and Ground Covers: Fits shall be large enough for adequate planting.

- G. **Backfilling:**  
When pit has been excavated as specified in Paragraph IV-C, the pit shall be backfilled with material as specified in Paragraph III, A, B, C, D, and IV, B and shown in the Typical Tree and Shrub diagrams (attached).

- H. **Setting Trees and Shrubs:**  
Unless otherwise specified, all trees and shrubs shall be planted in pits, centered and set on four inches (4") of compacted topsoil to such depths that the finished grade level of the plant after settlement shall be the same as that at which the plant was grown. They shall be planted upright and faced to give the best appearance or relationship to adjacent structures. No burlap shall be pulled out from under the balls. Platforms, wire and surplus binding from top and sides of the balls shall be removed. All broken or frayed roots shall be cut off cleanly. Soil shall be placed and compacted thoroughly avoiding injury and shall be settled by watering. No filling around trunks will be permitted. After the ground settles, additional soil shall be filled in, to the level of the finished grade, allowing for two inches (2") of mulch. Form a shallow saucer around each plant by placing a ridge of soil along the edge of the plant pit.

- I. **Setting Palms:**  
All palms shall be planted in sand, thoroughly washed in during planting operations and with a shallow saucer depression left at the soil line for future waterings. Saucer areas shall be top-dressed two inches (2") deep with topsoil raked and left in a neat, clean manner.

- J. **Pruning - New Plant Material:**  
Remove dead or broken branches from all plant material. Prune to retain typical growth habit of individual plants with as much height and spread as is practicable. Make all cuts with sharp instrument flush with trunk or adjacent branch, in such a manner as to insure elimination of stubs. "Headback" cuts at right angles to line of growth will not be permitted. Trees shall not be poled or topped. Remove trimmings from site.

- K. **Guying Trees:**  
(See "Typical Tree Planting Diagram" included herein.) Guy all trees 1 1/2 inches in caliper and greater, in three directions with two strands of No. 12 galvanized wire attached to approved anchors driven below grade. When securing wires to trees, cover all wires which may come in contact with any part of tree with new rubber hose. Place guys not less than 1/3 of the height of tree above finished grade and above substantial limbs (one inch [1"] in diameter or more), if possible. All hoses shall be interlocked around tree trunk. Place anchors so that guys are equally spaced and at 45 degree angles to horizon. Keep guys tight until project completion.

- L. **Mulching:**  
All trees and shrub beds shall be mulched immediately after planting to a two inch (2") depth. Prevent wind displacement of mulch by thoroughly wetting down.

- M. **Excess Excavated Soil:**  
Excess excavated soil shall be disposed of by the Contractor at no additional expense to the Owner, at Owner's discretion.

- N. **Relocated Material (when applicable):**  
Existing material shown on the plan to be relocated shall be root-pruned as far ahead of time as necessary to move them safely, and shall be protected and treated as new material, as previously specified. Planting shall be in accord with these specifications.

- O. **Disposition of Existing Material:**  
All existing plant material not shown as remaining or relocated shall be removed from the site at no additional cost to the Owner, at Owner's discretion.

5. Sod

- A. **Soil:**  
The Landscape Contractor shall submit a unit price per cubic yard for the supply and distribution of planting soil as herein before specified, to be applied at a depth of one inch (1"), to all areas receiving sod. (The use of this one inch (1") of soil shall be at the discretion of the Architect/Landscape Architect after evaluation of the existing soil on the site.)
- B. **Grades:**  
It shall be the responsibility of the Landscape Contractor to finish (fine) grade all landscape areas, eliminating all bumps, depressions, sticks, stones and other debris to the satisfaction of the Architect/Landscape Architect.
- C. The sod shall be as called for on the landscape plans. Sod shall be of firm tough texture, having a compact growth of grass with good root development, and shall contain no weeds or any other objectionable vegetation. The soil embedded in the sod shall be good earth, free from stones and debris and all sod shall be free from fungus, vermin and other diseases.
- D. Before being cut and lifted, the sod shall have been mowed at least three times with a lawn mower, with the final mowing not more than seven days before the sod is cut. The sod shall be carefully cut into uniform dimensions.
- E. Solid sod shall be laid with closely abutting joints with a tamped or rolled, even surface. It shall be the responsibility of the Contractor to bring the sod edge in a neat, clean manner to the edge of all paving and shrub areas. If, in the opinion of the Architect/Landscape Architect, top-dressing is necessary after rolling, clean sand will be evenly applied over the entire surface and thoroughly washed in.

6. Clean-up:

Any soil, peat or similar material which has been brought onto any paved areas shall be removed promptly keeping these areas clean as the work progresses. Upon completion of the planting, all excess soil, stones and debris which has not been previously cleaned up shall be removed from the site or disposed of as directed by the Architect/Landscape Architect.

7. Maintenance:

- A. Maintenance shall begin immediately after each plant is planted and shall continue until all planting has passed final inspection and acceptance by the Owner. Maintenance shall include watering, weeding, cultivating, removal of dead materials, resetting plants to proper grades or upright position and restoration of the planting saucer and any other necessary operations. Proper protection to lawn areas and existing plant materials shall be provided and any damage resulting from planting operations shall be repaired promptly.

- B. The Contractor shall deep-water all trees and shrubs for a period of ninety (90) days after planting. In the event an irrigation system is operable, Contractor shall see that adequate water is supplied for that period.

8. Inspection and Acceptance:

- A. **Inspection:**  
Inspection of work to determine completion of contract, exclusive of the possible replacement of plants, will be made by the Owner and/or Landscape Architect at the conclusion of all planting and at the written request of the Contractor.

- B. **Acceptance:**  
After inspection, the Contractor will be notified by the Owner of the acceptance of all plant material and workmanship, exclusive of the possible replacement of plants subject to guarantee.

9. Guarantee and Replacement:

- A. **Guarantee:**  
The Contractor shall furnish a written guarantee warranting all materials, workmanship and plant materials, except sod for a period of ONE YEAR from the time of final acceptance by the Owner. All plant materials shall be alive and in satisfactory condition and growth for each specific kind of plant at the end of guarantee period. Where vandalism is agreed by the Architect/ Landscape Architect as the cause for replacement, the Contractor shall not be responsible for replacement during the one-year guarantee after final acceptance. Sod shall be guaranteed for a THREE MONTH period, dating from the time of acceptance.

- B. **Replacement:**  
During guarantee period, any plant required under this contract that is dead or not in satisfactory condition, as determined by the Architect/Landscape Architect, shall be replaced within two weeks of notification by the Architect/Landscape Architect. The Contractor shall be responsible for the full replacement cost of plant materials.

- C. **Material and Operations:**  
All replacements shall be plants of the same kind and size as specified in the plant list. They shall be furnished and planted as specified herein.

10. Care and Maintenance Schedule:

- A. The Contractor shall furnish the Owner's Maintenance staff with a written and detailed description for the care and maintenance of all plant materials and irrigation systems at the time of final inspection. Contractor will also provide a one year Landscape Maintenance Contract, to take affect after Substantial Completion of the project. It will be in the Owner's discretion to accept or reject this contract.

11. Permits and Regulations:

- A. The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of this work as drawn and specified.

12. Protection of Work and Property:

- A. The Contractor shall continuously maintain adequate protection of all his work from damage and theft and shall protect the Owner's property from injury and loss arising in connection with this contract, making good any such loss or injury or damage except where caused by Owner or his agents. He shall adequately provide and maintain passageways, guard fences, lights and other protections required by public authority according to State, Federal and local ordinances.

- B. The Contractor shall provide protection for existing trees and other plant material as designated by drawings, by Owner's representative or by local authorities. Such protection shall consist of fencing or such devices as will prevent harm to material from excavation, breakage, chemical or other types of damage.

- C. A competent superintendent, foreman or workman capable of reading drawings and acting on behalf of the Contractor shall be kept on the work during its progress.

13. Changes In The Work:

- A. The Contractor shall conduct a soil survey of the site to determine the need for any additives to overcome severe conditions not met by normal planting soil requirements. A report of any problems shall be submitted to the Owner and the Architect/Landscape Architect for approval prior to installation, along with a cost break-down of additional services needed.

- B. The Contractor shall advise the Owner and Landscape Architect of any special site conditions (high water table, light or soil conditions, etc.) that might require change of plant material or adjustment to finish elevation shown. The Owner will approve any changes thus determined.

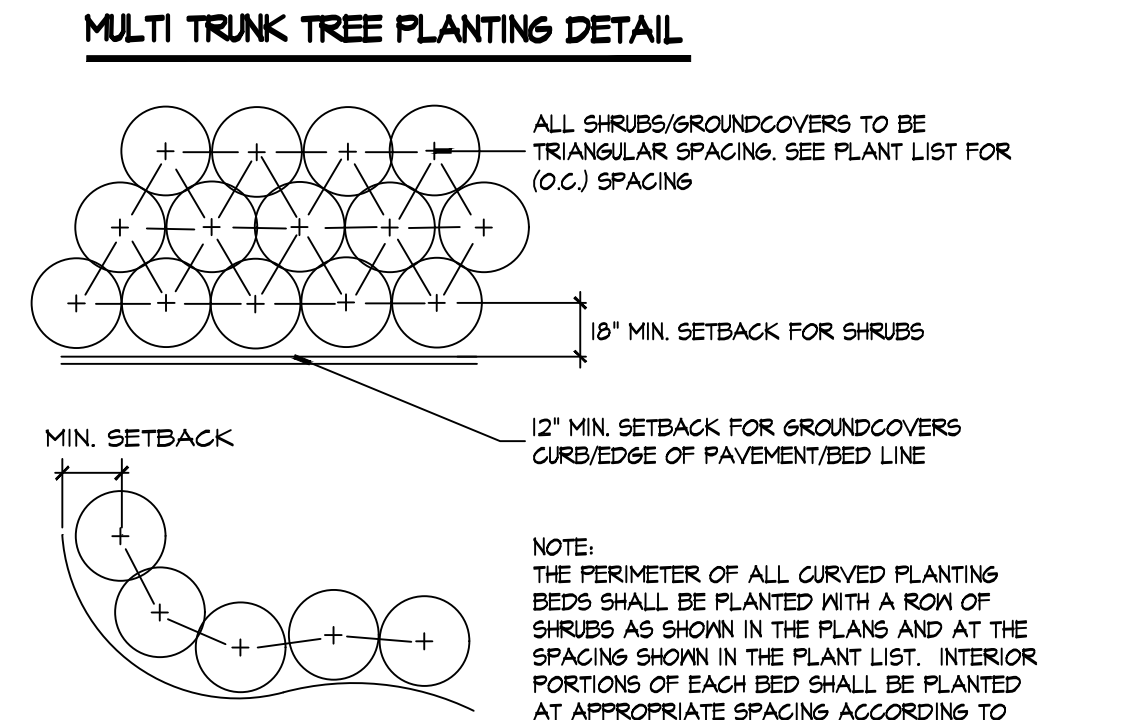
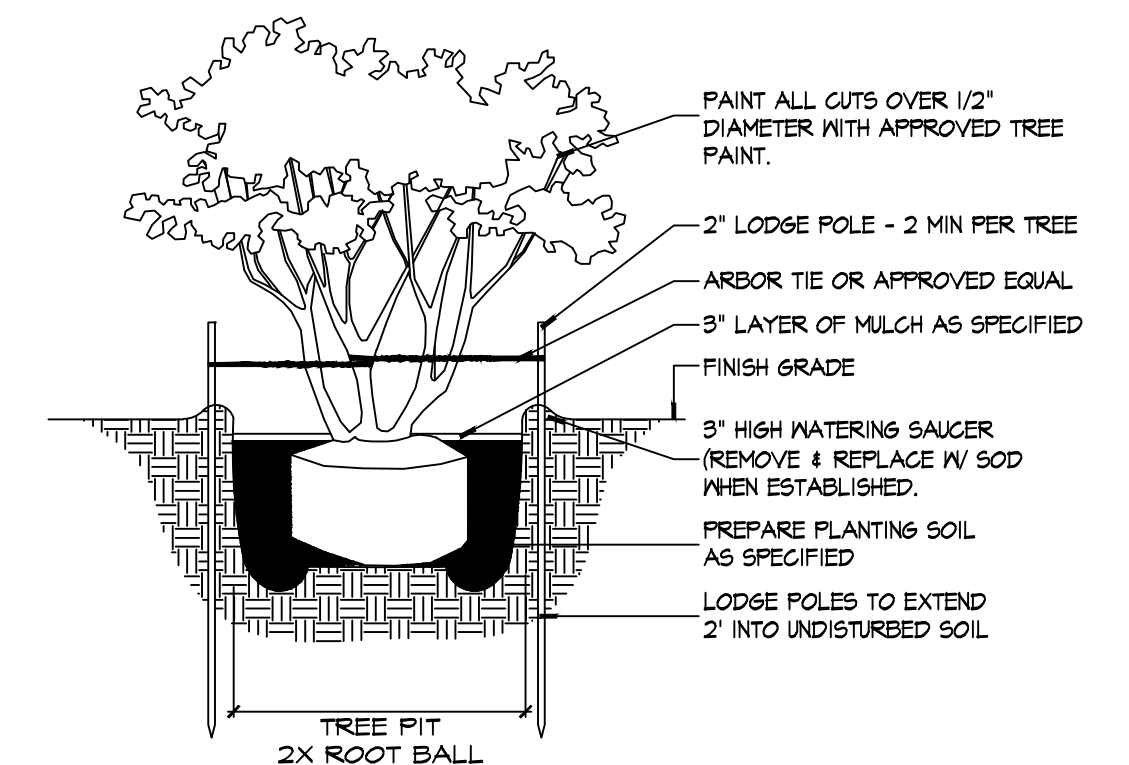
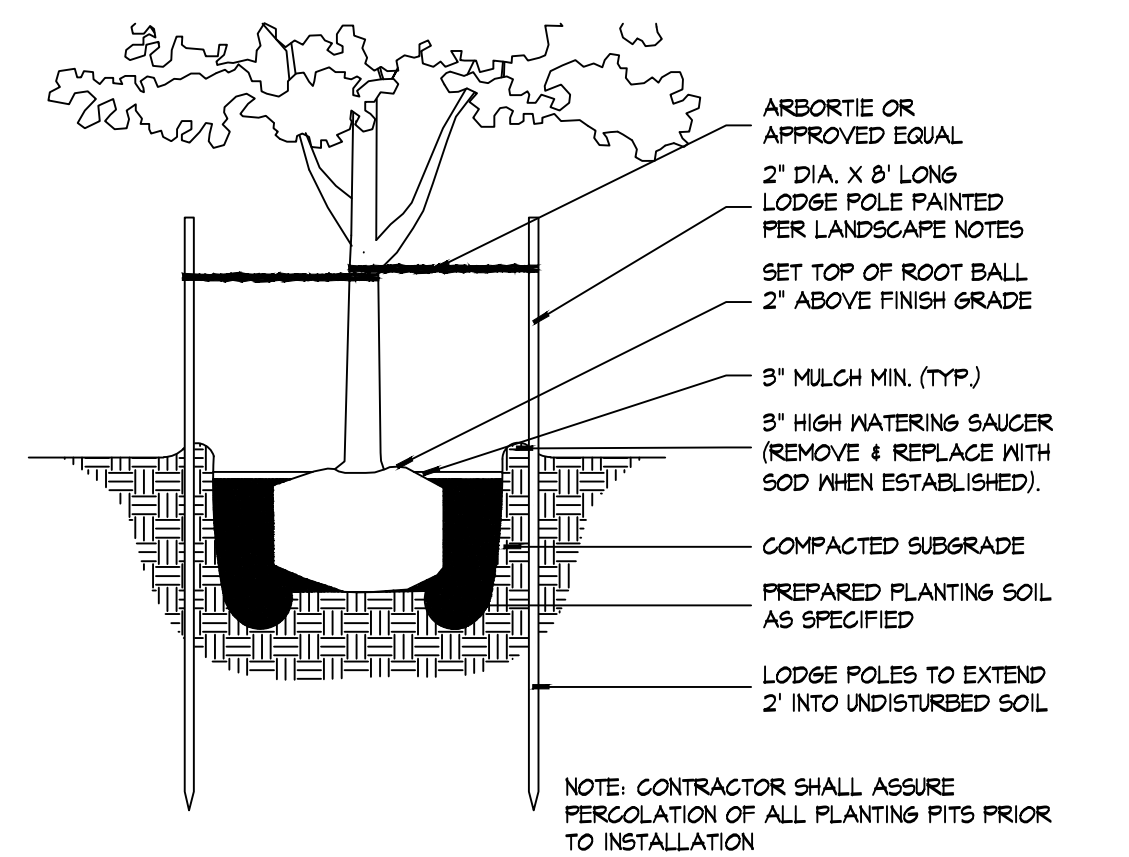
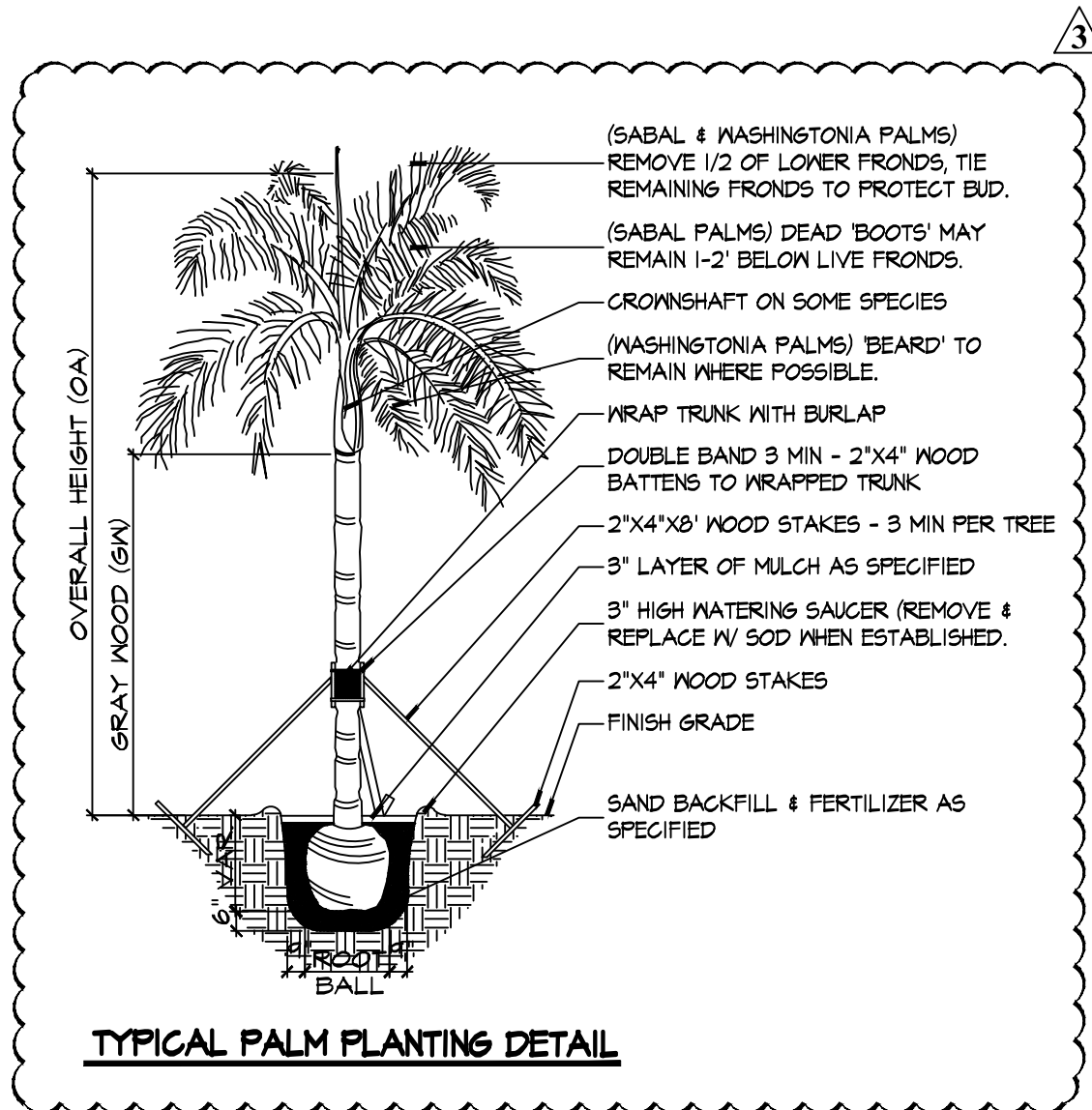
14. Landscape Architect:

- A. The Landscape Architect is the author of the design and agents for its execution. When his services are used by the Owner for supervision, he shall act impartially between the Owner and Contractor and shall have authority to reject all work and materials which do not conform to the contract. All decisions of the Landscape Architect shall be final.

The Contractor shall remove from the site all materials considered not up to specifications by the Landscape Architect and replace with suitable materials.

15. Obstructions:

- A. The Contractor shall acquaint himself with the existence and location of all surface and subsurface structures, utilities and installations before commencing any work, and shall avoid any disturbance or damage to them throughout the course of the work. Repairs to any utilities, subsurface structures and installations and surface obstructions damaged by the Contractor shall be at the Contractor's own time and expense.



landscape architects  
and planners

LC - 0000396  
2300 Corporate Blvd. NW, Suite 214  
Boca Raton, Florida 33431  
Ph. 561.955.8623  
Fax: 561.362.4749  
email: landscapedrthts@dsboca.com

1625 OCEAN  
1625 S. OCEAN BLVD. DELRAY BEACH, FLORIDA  
PLANTING SPECIFICATIONS

REVISIONS:  
04-01-2021 Building comments /  
Courttyard Design  
07-08-21 SPRAB Review

MAY 17, 2021  
DATE  
G.C.  
DRAWN BY:  
M.J.  
APPROVED BY:

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