1. SCOPE OF WORK
A. The scope of work includes furnishing all plants, materials, equipment of and labor necessary for planting plant materials indicated on the Drawings; and/or in the Specifications.

2. QUALITY ASSURANCE:
A. Landscape contractor to be regularly engaged in the installation of living plant material. Labor crews shall be controlled and directed by a landscape foreman well versed in landscape installation, plant materials, reading blueprints and coordination between the job and nursery. The landscape contractor shall carry any necessary insurance and protect the 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 and all of his workers shall be covered by Workmen's Compensation Insurance.

B. The landscape contractor and irrigation contractor must coordinate scheduling and layout prior to commencement of material installation. If necessary, the landscape contractor and irrigation contractor may agree to minor adjustment in sprinkler layout, head type or quantity, in response to specific plant needs. The Landscape Architect must be notified of any such changes.

3. MATERIALS:
3.1 PLANT MATERIALS:
A. All plant materials shall be nursery grown unless otherwise noted. Abbreviations on plant list:
C.W. clear wood
G. gallon
Spr. spread
C.T. clear trunk
O.A. Overall height
O.C. on center
HT. height
D. diameter

B. Quality and Size: 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 before pruning with branches in normal position. Any necessary pruning shall be done at the time ofplanting. Requirements for measurements, branching, grading, quality, balling and burlapping of plants in the plant list generally follow the code of standards currently recommended by the American Association of Nursery Stock. Plant materials shall be graded Florida No. 1 or better as outlined under Grades & Standards for nursery plants, state Plant Board of Florida. Plants that meet the requirements specified, but do not have normal balance of height and spread typical for the respective plant, shall not be accepted. All plants shall be free of weeds or any other objectionable vegetation.

C. 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. Shall a discrepancy occur between the bidder's take off and the plant list quantity, the Landscape Architect is to be notified for clarification prior to the submission of bid.

D. Substitution: Plant substitution requests by the contractor will be considered by the Landscape Architect only upon submission of proof that any plant is not obtainable in the type and 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.

3.2 COMMERCIAL FERTILIZER:
A. Commercial fertilizer shall be an organic 13–3–13 LESCO fertilizer containing nitrogen phosphoric acid and potash available plant food by weight. Nitrogen shall not be 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 unopened in original containers, each bearing the manufacturer's guaranteed analysis. Any fertilizer that becomes caked or otherwise damaged shall not be acceptable.

B. Planting tablets shall be tightly compressed, long lasting, slow release fertilizer tablets weighting 21 grams, with a potential acidity of not more than 5% by weight and having an analysis of 20.10.5.

3.3 PEAT:
A. 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.

3.4 PLANTING SOIL:
A. Planting soil shall be sandy loam and shall contain a 25% minimum amount of decomposed organic matter. Planting soil shall be free of clay, stones, plants, roots, and other foreign materials which might be a hindrance to planting operations or be detrimental to good plant growth. Soil shall be delivered in a loose friable condition and applied in accordance with the Planting Specifications.

3.5 MULCH:
A. Mulches shall not contain sticks larger than 1/4 inch in diameter, stones, or other foreign material that will prevent the eventual decay of the mulch necessary for its complete effectiveness.

3.6 WATER:
A. Water for planting will be available at the site and will be provided by the Owner. Landscape Contractor shall not assume that the irrigation system will be operational at the time of planting. It is the responsibility of the Landscape Contractor to provide all the required water necessary to maintain the plant material in a healthy growing condition. The watering may include deep watering of trees and the watering of shrub and ground cover areas. Any plant materials that die or that are not in a healthy growing condition due to lack of water shall be replaced at no additional cost to the Owner.

4. EXECUTION
4.1 PROTECTION OF PLANTS:
A. Root Protection:
1. Balled and Burlapped Plants: Plants designated B & B (balled and burlapped) shall be dug with firm natural balls of earth of sufficient diameter and depth to encompass the fibrous and feeding root systems necessary for full recovery of 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.
2. 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 Drawings, and shall not be governed by container sizes. Minimum root balls of container grown material shall be no more than 25% less proportionately in size than that stated in "Grades and 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.

B. 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.

C. Protection After Delivery: Plants which cannot be planted immediately on 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 planted. Storage period shall not exceed forty–eight (48) hours.

D. Protection of Palms (if Applicable): Only a minimum of fronds shall be removed from the crown of the palm trees to facilitate moving and handling.

E. Clear trunk shall be as specified after the minimum of fronds have been removed. Cabbage Palms shall have a sufficient ball size for rapid growth and acclimation. Burn marks on trunks shall be removed. Cabbage Palm heads shall be tied with a burlap strip to be left in place until the tree is well established.

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

4.2 PLANTING OPERATIONS:
A. layout: Location for plants and outline 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 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 Landscape Architect.

B. Soil Preparation: Apply pre–planting herbicide of Round–up or equal. Soil used shall be as herein before specified under "Planting Soil", thoroughly mixed with peat to produce 25% peat by volume. The soil should be in a relatively dry state and mixed thoroughly by hand or rotary mixer. All planting areas shall be treated with an approved pre–emergent according to the manufacturer's specifications. (Ronstar, Eptam, or equal).

C. Excavation for Planting: Excavation of plant pits shall be circular in outline and shall blend with the required subgrades as specified hereunder. The minimum depth of plant pits specified below shall be measured from the finish grade. Mass Planting beds shall be stripped of all vegetation prior to planting. Use acceptable excess excavated topsoil to form watering berms (saucers) around plants: use 25% of excavated material and mix with topsoil for backfill. Remove all excess material to dump site as directed by Owner. 4.3

D. Balled and Burlapped Plants: After final setting, loosen burlap wrapping exposing the top of the rootball, leaving the ball unbroken. Remove excessive amounts of burlap to eliminate voids which may be caused upon decomposition.

E. Container Grown Plants: Container grown plants shall, when delivered, have sufficient growth to hold earth intact when removed from container and shall not be root bound. Plant pits for container materials shall be formed flat on the bottom to avoid air pockets at the bottom of root balls and containers shall be removed care–fully to prevent damage to plant or root systems.

F. Testing for Drainage: Test fill all tree pits with water before planting to assure proper drainage percolation is available. Pits which are found not to be adequately draining shall be excavated to a depth sufficient for drainage and backfilling with gravel or crushed rock. No allowances will be made for lost plants due to improper drainage.
Pit sizes: Minimum diameter (width) and depth of planting pits for balled and burlapped, and container grown plants, shall be as follows:

G. 1. Diameter – Trees: 18" greater than diameter of ball or spread of roots.
2. Diameter – Shrubs: 6" greater than diameter of ball or spread of roots.
3. Depth – Trees and Shrubs: 4" greater than depth of ball or roots to provide 4" of topsoil backfill under the rootball. (Large heavy trees and shrubs may sit directly on unexcavated pit bottom if it is determined that undue settlement may occur.)
4. Depth – Vine Groundcovers: Pits shall conform to accepted nursery practice for the particular species and equal the plant pot depth plus one (1) inch.

4.2 PLANTING OPERATIONS (CONT.):
H. Backfilling: when the plant pit has been excavated as specified previously and the plant has been set, the pit shall be backfilled with planting soil at the following rates:
One–quarter cubic yard per tree
One cubic yard per 25 7gal (lerio)
One cubic yard per 50 shrubs 3 gal.
One cubic yard per 100 1 gal. (ground cover)

I. 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 planting soil 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. This ridge shall be one inch (1") high for each one inch (1") caliper of trunk to a maximum of four inches.

J. 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, clear manner.

K. Fertilizing: When setting trees, palms and shrubs place in each plant hole Planting Tablets, 20–10–5 formula, 21 gram, according to the following:
1 – gallon can – 1 tablet
2 – 3 gallon can – 2 tablets
7 – gallon can – 4 tablets
B & B Shrubs and Trees – 1 tablet for every 20" around circumference of root ball above middle of ball.
Correct placement of Tablets: Position the plant in the hole and backfill no higher than halfway up the root ball. Place the recommended number of tablets evenly around the perimeter of, and immediately adjacent to, the root ball at a depth which is between the middle and the bottom of the rootball. Complete backfilling as described above under setting trees, palms and shrubs.

L. Pruning: Remove dead and broken branches from all plant material. Prune to retain typical growth habit of individual species with as much height and spread as is practicable. Make all pruning cuts with a sharp instrument flush with trunk or adjacent branch, in such a manner as to ensure elimination of stubs. "Headback" cuts, right angle to line of growth, will not be permitted and trees will not be poled or topped. Paint all cuts 1/2" in diameter and larger with approved waterproof antiseptic free paint and remove trimmings from site.

M. Guying and Staking: Guy all trees 1–1/2" in caliper and greater in three (3) directions with double 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 horizontal. Keep guys tight until project completion.

N. In staking palms and broadleaf trees no nails or other fasteners will directly penetrate the trunks. Wood 2 x 4 battens 12 inches long, separated by a minimum of four (4) layers of burlap can be attached to the trunk of the trees with metal banding. Stakes can only be nailed to the wooden battens. Alternate methods of guying or staking may be employed with the approval of the Landscape Architect.

O. Mulching: All trees and shrub beds shall be mulched immediately after planting, to a three inch (3") depth, with a mulch approved by the Landscape Architect. Prevent wind displacement of mulch by thoroughly wetting down.

P. Excess Excavated Soil: Excess excavated soil shall be disposed of by the Contractor at no additional expense to the Owner.

Sod (When Applicable):
A. Soil: The 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 item in the Contract shall be at the discretion of the Landscape Architect after evaluation of the existing soil on the site.) Payment for this item will be determined by a square foot, in–place measurement of the installed sod area after sod installation is complete, multiplied by the specified depth of one inch (1"), to determine cubic yards of soil used.

B. Grades: It shall be the responsibility of the Contractor to finish (fine) grade all landscape areas, eliminating all bumps, depressions, sticks, stones and other debris to the satisfaction of the Landscape Architect, prior to the application of sod. If supplemental topsoil is to be spread, no sod shall be laid until the depth of this soil has been approved.

C. The sod shall be as called for on the Landscape Drawings. Sod shall be of firm tough texture, having a compact growth of grass with good root development, and shall contain no Bermuda Grass, 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 (7) days before the sod is cut. The sod shall be carefully cut into uniform dimensions.

E. Solid sod shall be laid by the Contractor 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 Landscape Architect, top–dressing, is necessary after rolling, clean sand will be evenly applied over the entire surface and thoroughly washed in.

4.4 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.

4.5 MAINTENANCE:
A. Maintenance shall begin immediately after each plant is planted and shall continue until all planting has passed final inspection and acceptance. 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 shall be provided and any damage resulting shall be repaired promptly.

B. All trees shall be deep watered for a period of 90 days after planting.

C. In the event of the threat of serious damage resulting from insects or disease prior to final acceptance, the plants shall be treated by preventative or remedial measures approved for good horticultural practice at no additional cost to the Owner.

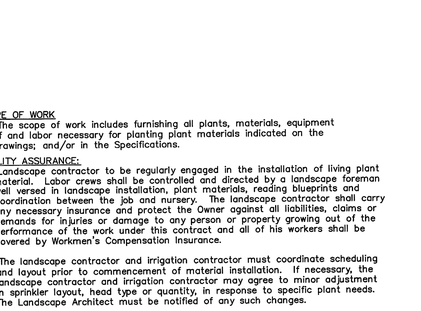
D. The Contractor shall furnish the Owner with a written and detailed description for the care and maintenance of all plant material at the time of final inspection. The owner agrees to execute the instructions for such care and maintenance.

4.6 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 and/or Landscape Architect of the acceptance of all plant material and workmanship, exclusive of the possible replacement of plants subject to guarantee.

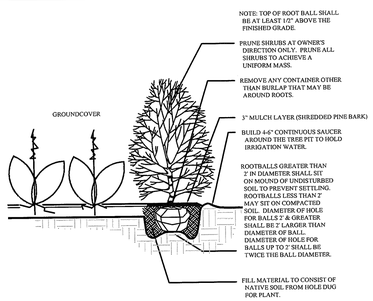
4.7 GUARANTEE AND REPLACEMENT:
A. Guarantee: The Contractor, as part of his Contract, shall furnish a written guarantee warranting all materials, workmanship and plant materials, except sod, for a period of one(1) year from the time of completion and acceptance. All plant materials shall be alive and in satisfactory condition and growth for each specific kind of plant at the end of the guarantee period. Where vandalism is agreed by the Landscape Architect as the cause for replacement, the Contractor shall not be responsible for replacement during the one(1) year guarantee after final acceptance.
B. Sod shall be guaranteed for a two month period, dating from final acceptance and any lawn care which becomes necessary during the completion period will be the responsibility of the Owner to ensure a vigorous stand of grass.

5.0 TREE RELOCATION AND PROTECTION
TREE PROTECTION:
A. Protection and care of existing trees, palms, shrubs, and ground covers to remain, to include all aspects of protection, fertilization and watering.
B. Trees, palms, shrubs, and ground cover to remain are designated on the drawings or as directed by the Landscape Architect.

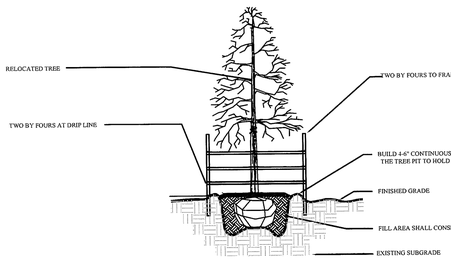
5.1 TREE RELOCATION:
A. Prepare the relocate trees and palms designated for relocation to include all aspects of preparation, protection, fertilization and watering.
B. Trees and Palms to be relocated on site are designated on the drawings or as directed by the Landscape Architect.
C. Resulting tree and palm pits of relocated material shall be backfilled with clean topsoil and brought flush with surrounding grade.
D. Guarantee:
1. Any tree or palm that dies or is deemed in unacceptable condition for (1) year following relocation shall be removed by the Contractor including root ball, and backfilling of pit, at no cost to the Owner.
2. Acknowledging the sensitive nature of tree and palm relocation, the Contractor shall not be responsible for survival of trees and palms if it is deemed by the Landscape Architect or Owner that tree or palm mortality is a product of negligence by the Contractor, the Contractor shall provide and install at no additional cost to the Owner a tree or palm of same size and species.



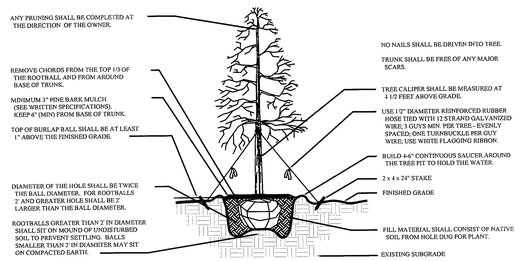
Typical Palm Staking Detail



Shrub and Groundcover Planting Detail

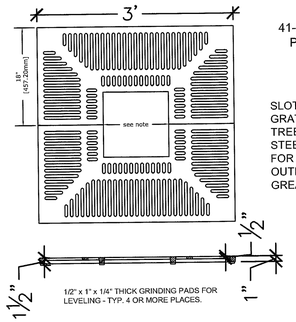


Existing Tree Protection Detail



Tree Planting Detail

TREE GRATE #M3622
STYLE: ADA



IRONSMITH
41-701 CORPORATE WAY, #3
PALM DESERT, CA 92260
(800) 338-4766
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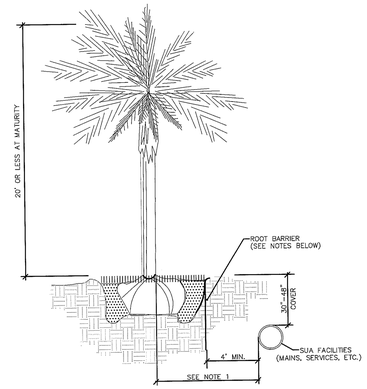
SLOT WIDTH IS 1/2 " MAXIMUM. MEETS ADA COMPLIANCE.
GRATE CAST FROM GRAY IRON OR ALUMINUM
TREE OPENING SIZE 12 " OR 20 "
STEEL ANGLE FRAME REQUIRED
FOR INSTALLATION USE MODEL M3622F
OUTER FRAME DIM. IS 3/4" ± 1/8"
GREATER THAN GRATE. .



NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)
1. THIS DISTANCE SHALL BE 7' MINIMUM WITH ROOT BARRIER AND 10' MINIMUM IF NO ROOT BARRIER IS USED.
2. ALL ROOT BARRIERS SHALL BE 4'MINIMUM FROM ALL SEACOAST FACILITIES.
3. THE INSTALLATION OF ROOT BARRIERS SHALL BE COORDINATED WITH SEACOAST AND INSPECTED BY SEACOAST PRIOR TO BACKFILLING. ALL ROOT BARRIERS SHALL EXTEND UP TO FINISHED GRADE.
4. ROOT BARRIERS SHALL BE MINIMUM 36" DEEP. APPROVED PRODUCTS INCLUDE "DEEP ROOT" AND "ROOT SOLUTIONS". FLEXIBLE BARRIERS SHALL BE 36" PANELS MANUFACTURED BY BIOBARRIER.
5. ALL ROOT BARRIERS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS WRITTEN INSTRUCTIONS.

Typical Small Tree or Palm Tree with Root Barrier
May 28, 2008

Small Trees or Palms Adjacent to Water Utilities

JUN 27 2011

PECK PLAZA
1295 U.S. Highway One
Village of North Palm Beach, Florida
Landscape Details and Specifications

[redacted]

Job Name: 1295 OFFICE BUILDING
CADD File: 1295LAD1.06.11

Date	Drawn By	Comments
10.17.05	DLN	
05.18.10	DLN	WATER & SEWER I/F
12.22.10	DLN	New Civil Base
01.06.11	DLN	New Civil Base
02.16.11	DLN	2 palms 1 shade tr
05.26.11	DLN	Fire Line Relocation

[redacted]

Florida Registration No. 1521
Seal

Debra L. Northsea
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Email: DLNLADESIGN@aol.com

Scale: 1"=20'

Sheet No.
LA-2 of 2