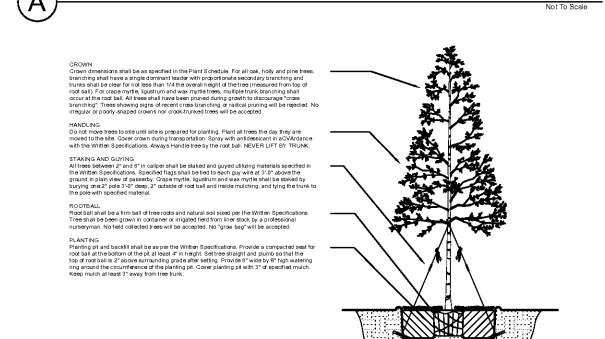


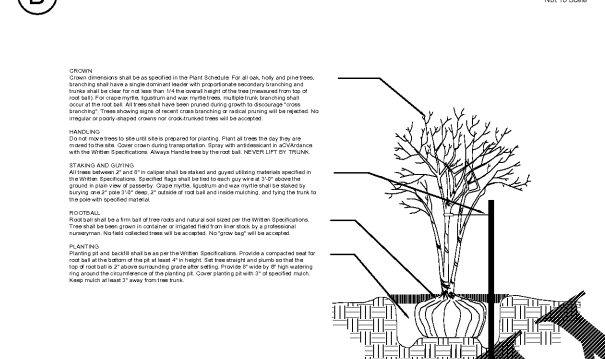
Planting Requirements

- 1. ALL SHRUBS AND GROUNDCOVER BEDS AND TREE RINGS SHALL BE COVERED WITH A LAYER OF ORGANIC MULCH 3" DEEP. DO NOT PILE MULCH UPON ROOT STOCK OF TREES OR SHRUBS. MULCH IS NOT REQUIRED IN ANNUAL BEDS.
2. ALL PLANT MATERIAL SHALL BE OF HIGHEST QUALITY SPECIFIED. PLANTS MUST CONFORM TO "FLORIDA #1" AS DEFINED IN THE LATEST EDITION OF "GRADES AND STANDARDS FOR NURSERY STOCK" AS PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES. TURFGRASS SOG SHALL BE CLEAN AND FREE OF LEEDS, NOXIOUS PESTS AND DISEASE. GRASS SEED SHALL BE DELIVERED TO THE JOB SITE IN BAGS WITH STATE DEPARTMENT OF AGRICULTURE TAGS ATTACHED.
3. LANDSCAPE AREAS MUST ALLOW FOR ACCESS TO PUBLIC AND PRIVATE UTILITY FACILITIES FOR MAINTENANCE PURPOSES.
4. ALL REQUIRED LANDSCAPING, EXCEPT FOR RETAINED NATIVE HABITAT OR XERIC ZONES, SHALL BE EQUIPPED WITH AN AUTOMATIC IRRIGATION SYSTEM.
5. TURF AND GRASS SOG SHALL BE CLEAN AND FREE OF LEEDS, NOXIOUS PESTS AND DISEASE. GRASS SEED SHALL BE DELIVERED TO THE JOB SITE IN BAGS WITH STATE DEPARTMENT OF AGRICULTURE TAGS ATTACHED.
6. SPRAY HEADS AND ROTOR HEADS SHALL BE ON SEPARATE ZONES. HEADS WITHIN THESE ZONES SHALL HAVE MATCHING APPLICATION RATES.
7. THE IRRIGATION SYSTEM SHALL BE DESIGNED TO AVOID OVERSPRAY, RUNOFF, LOW HEAD DRAINAGE OR OTHER SIMILAR CONDITIONS WHERE WATER FLOWS ONTO OR OVER ADJACENT PROPERTY, NON-IRRIGATED AREAS, WALKWAYS, ROADWAYS, STRUCTURES, OR WATER FEATURES. NARROW AREAS (FOUR FEET WIDE OR LESS) SHALL NOT BE IRRIGATED UNLESS MICRO-IRRIGATION IS UTILIZED.
8. IRRIGATION CONTROL EQUIPMENT SHALL INCLUDE AN AUTOMATIC IRRIGATION CONTROLLER HAVING PROGRAM FLEXIBILITY SUCH AS REPEAT CYCLES AND MULTIPLE PROGRAM CAPABILITIES. AUTOMATIC IRRIGATION CONTROLLERS SHALL HAVE BATTERY BACK-UP TO RETAIN THE IRRIGATION PROGRAM(S). AUTOMATIC CONTROL SYSTEMS SHALL BE EQUIPPED WITH AN OPERABLE RAIN SENSOR DEVICE.
9. THE IRRIGATION SYSTEM SHALL BE DESIGNED TO "STANDARDS AND SPECIFICATIONS FOR TURF AND LANDSCAPE IRRIGATION SYSTEMS" FOURTH EDITION 2006, FLORIDA IRRIGATION SOCIETY AND AS SUBSEQUENTLY AMENDED.

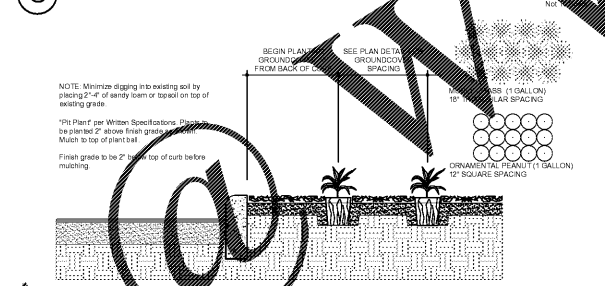
TYPICAL SHRUB PLANTING



TYPICAL TREE PLANTING



TYPICAL MULTI-TRUNK TREE PLANTING



TYPICAL GROUNDCOVER BED PREPARATION



SECTION 2800 LANDSCAPE PLANTING
1. PART 1 - GENERAL
1.0 SCOPE: Furnish all materials, tools, equipment and labor necessary for the installation of all plant materials and accessories shown on the applicable drawings in accordance with all the requirements specified herein.
1.1 REFERENCES: The latest issues of the following documents form a part of this specification to the extent indicated:
a. American National Standards Institute (ANSI): Joint committee on Horticultural Nomenclature Standards Standardized Plant Names (SPN) 1942 edition.
b. American National Standards Institute (ANSI): Nursery Stock, Z 60.1
c. American Society of Testing and Materials (ASTM): 60.1 Nursery Stock.
d. Florida Department of Agriculture and Consumer Services (FDACS): Grades and Standards for Nursery Plants, Parts 1 and 1 (GNS).
1.2 NOTIFICATION: Notify Owner's representative 48 hours in advance of planting to allow on site inspection of planting procedures and verification of plant material size.
1.3 SUBMITTALS:
1.3.1 At contract closeout submit all project record documents, operation and maintenance data warranty, and two copies of maintenance record.
1.3.2 Submit copies of soil test Certificates of Analysis as described herein prior to commencement of construction.
1.4 QUALITY ASSURANCE:
1.4.1 Qualifications: Contractor shall have not less than three years experience as a Landscape Contractor and have completed a minimum of 5 equivalent installations. Contractor shall submit a written description of ability including facilities, personnel and a list of similar completed work.
1.4.2 Regulatory Requirements: All suppliers of plant material shall comply with the Horticultural laws of the State of Florida as regulated by the Florida Department of Agriculture Division of Plant Industry.
1.4.3 Soil Testing: The Contractor shall perform and pay for soil testing as follows:
a. Test two samples of stockpiled topsoil for pH level, sodium content, organic matter, nutrients and pathogens.
b. Test two samples of imported, composted humus for pH level, sodium content, organic matter, nutrients and pathogens.
1.5 DELIVERY, STORAGE AND HANDLING
1.5.1 Packing and Shipping:
a. Balled and Burlapped (B&B) plants shall be dug and prepared for shipment in a manner that will not damage roots, branches, shape and future development after replanting. Dig root balls to a depth of 12" for trees and 6" for shrubs, with firm, natural ball of soil, and wrap ball firmly with burlap.
b. Specimen Plants shall be dug, wrapped and bound with care to ensure safe handling, shipment and receipt at job site.
1.5.2 Acceptance at Site:
a. Deliver fertilizers, pesticides, organic mulches, soil amendments, and peat to site in original unopened containers bearing manufacturer's guaranteed chemical analysis, name, trade name, date of manufacture, and conform to state law as applicable.
b. Do not deliver more plant materials than can be planted in one day.
c. Deliver plants with legible identification labels.
d. Protect during delivery to prevent damage to plants, containers, or burlap.
e. Notify Landscape Architect of delivery schedule in advance so plant material may be inspected upon arrival at job site.
1.5.3 Storage and Protection: Bare-root, or balled and burlapped plant stock shall be delivered directly from nursery and headed-in immediately upon delivery if not to be planted within four hours.
1.5.4 Handling: Do not drop plants or balled and burlapped plants by means of cranes or hoists; all plants with crooked or mulched root balls with the plant loose in the container will be rejected.
1.6 Project/Shop Drawings: Planting schedule shall be in accordance with locally accepted practice as approved by the Landscape Architect.
1.7 Guarantee and Schedule: Planting to commence operation proceeding work is complete to the point that the contractor has begun to install the landscape.
1.8 Landmark: No impact by retaining structures, materials discovered on the site at any point in the project.
1.9 Warranty: All plants and materials shall be true to botanical name and variety and will replace them at no cost to the Owner regardless of the length of time it takes to make this determination.
2. PART 2 - PRODUCTS
2.1 PLANT MATERIALS:
2.1.1 Plant materials shall mean trees, shrubs, vines and plants of all descriptions that are required to be furnished for the project in accordance with the plant schedules.
2.2 QUALITY: All plant material furnished shall be healthy representatives, typical of their species or variety and shall have a normal habit of growth. They shall be full, well branched, well proportioned and have vigorous, well developed root system. All plants shall be inspected and certified in compliance with State and Federal law by the State Nursery Inspector to be healthy vigorous plants free from harmful defects, decay, disfigured stems or roots, plant diseases, or insect pests.
2.3 NOMENCLATURE: (SPN, 1942) All plants shall be true to name and type in accordance with names used on labels. Substitutions shall be by consent of Landscape Architect.
2.4 STANDARDS: (ANSI Z60.1 or GNS, whichever is more restrictive.) All plants shall be Florida #1 or better and shall be nursery grown within plant hardness zones 9 or 10. Collected material shall not be acceptable except as noted on plans.
2.5 Shade trees shall have trunks according to their habit of growth. The spread of the crown shall be in good overall proportion to the total height.
2.6 Canned stock shall be grown in a container such as pots or cans and have sufficient roots to hold earth together intact after removal, without being root bound.
2.7 Ornamental trees shall be well formed and have a crown typical of the species or variety. Where a multi-stem is detailed on the Plant List, a plant having a minimum of two or more stems originating from a common base at the ground line shall be furnished.
2.8 Deciduous shrubs shall be well branched and have ample well-balanced root systems capable of sustaining vigorous growth. They shall have a height-width ratio typical of sufficient well-spread side branches to give it proper weight and density.
2.9 Evergreen trees shall be of a form typical of their species or variety and not unnaturally sheared or color treated. They shall have received sufficient pruning of interior branches to develop full bodies and substantial side branching.
2.10 Evergreen shrubs shall be well branched and have ample well-balanced root systems capable of sustaining vigorous growth. They shall have a compact form and dense branching typical of their species or variety.
2.11 Vines and ground covers shall be adequate length and density typical of their species or variety.
2.12 SPECIMEN STOCK: When detailed on the Plant Schedule, specimen stock shall mean exceptionally fully developed, bushy, and heavily branched plants that have been grown individually in the nursery. They shall surpass the normal standard for nursery stock in their density and maturity, and shall form a pyrametoidal, tightly knit plant or picturesque characteristic if indicated. Specimen stock shall be approved by Owner prior to installation.
2.13 TRANSPLANTED STOCK: Where indicated on the plan, existing material on the site is to be transplanted to a new location. This work shall be accomplished as specified by the Owner's registered arborist.
2.2 FERTILIZER:
2.2.1 For Summer Flowering Trees and Shrubs, fertilizer shall be granular form, 5-5-5 or similar analysis in ureaform or nitroform slow release formulation.
2.2.2 For Spring-Flowering Trees and Shrubs, fertilizer shall be granular form, 5-12-5 or similar analysis in ureaform or nitroform slow release formulation.
2.2.3 For Ground Cover and other Evergreen shrubs, fertilizer shall be a granular form, 18-12-12 fertilizer or similar analysis in ureaform or nitroform slow release formulation.
2.2.4 For Evergreen Trees, fertilizer shall be a granular form fertilizer, 6-24-8 high phosphorous or similar analysis in ureaform or nitroform slow-release formulation.
2.3 Composted Humus material shall be as manufactured by a licensed composting facility as regulated by the Environmental Protection Agency. Composted Humus shall meet all EPA guidelines, be free of pathogens and insects, and have a pH of 7.0 to 7.5. Local source: Recycled Wood Products; Tampa, Florida (813/832-3634), or equal.
2.4 Weed Control shall be a granular pre-emergent, a weed control which kills weed seeds as they germinate, applied per package label instructions.
2.5 Organic Mulch shall be Grade "B" shredded cypress wood of uniform texture and size.
2.6 GUYING AND STAKING MATERIAL:
a. Anchors for ground guying of trees shall be Lacoona Malleable Iron Co., size 12" LA-12-120; or Duckbill Earth Anchors, Forelight Industries, Inc.; or equal.
b. Wire connections shall be Microspring Sulfide Clp, or equal.
c. Safety Flags for guy wires shall be 3" x 12" wood or hard plastic painted white.
d. Cable shall be three twisted strands of 3 gauge galvanized steel.
e. Turnbuckles shall be 3/16" x 4-1/2" galvanized steel.
f. Hose shall be new, 3/4" diameter, 2-ply black rubber.
g. Wood stakes for vertical staking of trees shall be form type, pressure treated wood posts, 2-1/2" x 3" diameter, 8'-0" long, unweathered, uniform in color and appearance.
h. Braces for palm trees shall be pressure treated 2" x 4" lumber.
2.7 PESTICIDES: Insecticide for plant material shall be an approved type for residential areas that may be used without halting construction activity. Application shall be according to package label specifications.
2.8 WATER: During the course of construction, the Contractor shall make, at his expense, whatever arrangements may be necessary to provide adequate irrigation of the planted areas. Contractor shall furnish all necessary hose, equipment, attachments, accessories and labor.
2.9 TWINE: Shall be lute twine not less than two ply.

2.10 TOPSOIL: Shall be natural, friable, fertile, fine loam soil, which produces a heavy growth; free from subsoil objectionable weeds, litter, soda, stiff clay, stones larger than one inch in diameter, stumps roots, trash, toxic substances or any other material which might be harmful to plant growth or hinder planting operations: between pH of more than 5.5 and less than 7.5.
2.11 EDGING: Where metal edging is indicated on the plan, it shall be green Permaloq Aluminum Edging, 3/16" x 4" x block (PH: 1-800-356-8660), or pre-bid approved equal.
2.12 SOIL AMENDMENTS:
a. Lime shall be agricultural grade, ground dolomitic limestone. At least 90% shall pass a U.S.S. No. 10 sieve, and at least 50% shall pass a U.S.S. No. 98 sieve. Any caked or damaged lime will be rejected.
b. Aluminum Sulfate shall be finely ground commercial grade aluminum sulfate.
2.13 LOCAL AVAILABILITY: Where specified items and/or materials, such as mulch, fertilizer types, analysis, or quantities, etc. are unavailable or drastically different from appropriate local practice, attach to bid a description of proposed substitute and effect of this bid price.
3. PART 3 - EXECUTION
3.1 EXAMINATION
3.1.1 Verify that final grades have been established prior to commencement of landscape construction operations.
3.1.2 Inspect trees, shrubs and ground covers for injury, insect damage, and trees and shrubs with damaged or improper pruning. Do not plant injured, infested or improperly pruned trees or ground covers.
3.2 PREPARATIONS
3.2.1 Stake out location of all trees and bed areas. Architect approval prior to commencement of landscape construction.
3.2.2 Adhere to tree protection requirements regarding flagging and protected root zone areas of existing trees as shown in the landscape drawings.
3.2.3 All planting shall be done in weather and soil conditions as are suitable.
3.2.4 Take all proper precautions to not disturb or damage subsurface improvements. It shall be the Contractor's responsibility to locate tanks, subsurface drainage, gas lines, etc. before planting operations are commenced in the excavation of planting pits. Alternate locations may be selected with the approval of the Architect.
3.2.5 Contractor shall at all times take reasonable and adequate precautions to protect the existing backfill material during the course of the project. Any damage incurred shall be corrected by the Landscape Contractor at his expense.
3.2.6 BED PREPARATION: Bed preparation shall be a layer of 4" of Composted Humus filled 4" into the existing topsoil to a depth of 4". Begin by tilling the existing soil to a depth of 4". Rake out all debris. Apply a 4" of Composted Humus material over the entire bed area and till to 6" deep. Grade to drain toward points of natural outflow or toward storm sewer inlets. Grade at walk and curb shall be 2" below the elevation of the pavement.
3.3 BED-EDGING: Install specified edging per manufacturer's recommendations where shown in the landscape drawings.
3.4 EXCAVATION: Plant pits shall be excavated with vertical sides and flat bottoms as per the details on landscape drawings.
3.5 PLANTING INSTALLATION:
3.5.1 SETTING: All plants shall be set in pits excavated to a size of two times the diameter of plant ball and twice (2X) deeper than the height of the root ball and shall be set at such a level that the top of the root ball shall be 1/8 the depth of the root ball (or container) above the surrounding soil level. Each plant shall be planted in the center of an individual pit and set plumb and straight. All plants shall be adjusted to conform and align with surrounding plants and properly faced as to give the best effect.
3.5.2 All burrs shall be let on the plants. Burlap shall be cut open or removed to below the mix-line prior to backfilling. Plants grown in metal, plastic, or peat pots, shall be removed from their containers.
3.5.3 Backfill material shall be the amended soil in the prepared bed of the plant.
3.6 FERTILIZING:
3.6.1 TREES: Shall have 1/2 cup for each 1/2" of the trunk caliper. Fertilizer shall be mixed into the backfill material prior to backfilling.
3.6.2 SHRUBS: Shall have 1/4 cup for each shrub under 12" in height and 1/2 cup for each shrub over 12" in height. Fertilizer shall be mixed into the backfill material prior to backfilling.
3.6.3 GROUNDCOVERS: Fertilizer shall be broadcast at the rate of 1.5 pounds of actual nitrogen per 1,000 square feet over the bed area and watered in prior to planting.
3.7 PLANTING FINISHES: Pruning shall retain the form typical of the plant. It shall include all dead or injured twigs and done according to standard horticultural practices.
3.8 Weed control shall be done by applying the approved granular pre-emergent throughout the bed area per label instructions prior to mulching. Apply the herbicide in all mulched areas except within root zones of the existing trees as shown in the landscape drawings.
3.9 For trees and palms, the planting mix shall be smoothed and shaped to form a shallow basin slightly larger than the pit. These basins shall then be mulched with a 3" layer of mulch. For bed plantings, the entire area shall be rolled smooth and mulched to a depth of 3".
3.10 During course of planting, excess and waste materials shall be promptly removed, lawn areas kept clear and precautions taken to avoid damage to existing structures, plants and grass. When planting in an area has been completed, the area shall be thoroughly cleaned up. Debris, rubble, subsoil and waste materials shall be removed from the site. All walks, drives, and patios graded with soil or materials from installation will be cleaned so far as practical.
3.11 Existing grass areas which have been injured by the work shall be regraded and sodded. The entire area, when completed, shall be neat and clean to the satisfaction of the Owner.
3.2 PLANT GUARANTEE AND REPLACEMENT:
3.6.1 GUARANTEE: Plants shall be guaranteed for 1 full year from the date of final acceptance.
3.6.2 REPLACEMENT: At the end of the guarantee period, inspection will be made by the Owner upon written notice requesting such inspection submitted by the Contractor at least ten days before the anticipated date. Any plant required under this contract that is dead or not in satisfactory growth, as determined by the Owner, shall be removed from the project site, and these any plants missing, due to the Contractor's negligence, shall be replaced as soon as conditions permit, but during the normal planting season.
3.6.3 All replacements shall be plants of the same kind and size as specified in the plant schedule given on the project drawings. They shall be furnished and placed as specified under new planting; the cost shall be borne by the Contractor except for possible replacement resulting from removal, loss or damage due to occupancy of the project in any part, vandalism, or acts of neglect on the part of others, during the guarantee period after acceptance.
3.7 MAINTENANCE:
3.7.1 Maintenance shall begin immediately after each portion of lawn and each plant is planted and shall continue in accordance with the following requirements. The landscape contractor shall provide and pay for maintenance.
3.7.2 Plant material shall be protected and maintained until installation of planting has been inspected and planting is accepted exclusive of the guarantee. Maintenance shall include watering, weeding, cultivating, mulching, lightening and repairing of guys, removal of dead material, resting plants to proper grade or upright position and restoring of the planting source and other necessary operations.
3.7.3 Maintenance shall be continued until the date of final acceptance.
3.7.4 The Contractor shall keep a record of landscape maintenance performed during the construction period plus the date and types of mechanical and chemical maintenance. The record shall be submitted to the Owner upon project closeout.
END OF SECTION 2800 - LANDSCAPE PLANTING

Campo Engineering, Inc. logo and contact information: 1725 EAST 5TH AVENUE TAMPA, FL 33605 PHONE: (813) 215-7372 FAX: (813) 902-8782 PROJECT TITLE YULEE O'REILLYS AUTO PARTS CLIENT NASSAU COUNTY, FLORIDA CLIENT GRYBOSKI, HOWE & GRAVELLY 101 S. BAY BLVD., SUITE B-3 P.O. BOX 732 ANNA MARIA, FLORIDA 34216 REVISIONS table with columns NO., DESCRIPTION, DATE. ISSUE DATE: 08/20/17 REVIEWED BY: ALC DRAWN BY: LAB DESIGNED BY: ALC PROJECT NUMBER CEI 18-035 SHEET TITLE PLANTING DETAILS SHEET NUMBER C-11 NASSAU COUNTY PERMIT NO. SPT18-022

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Order Plans