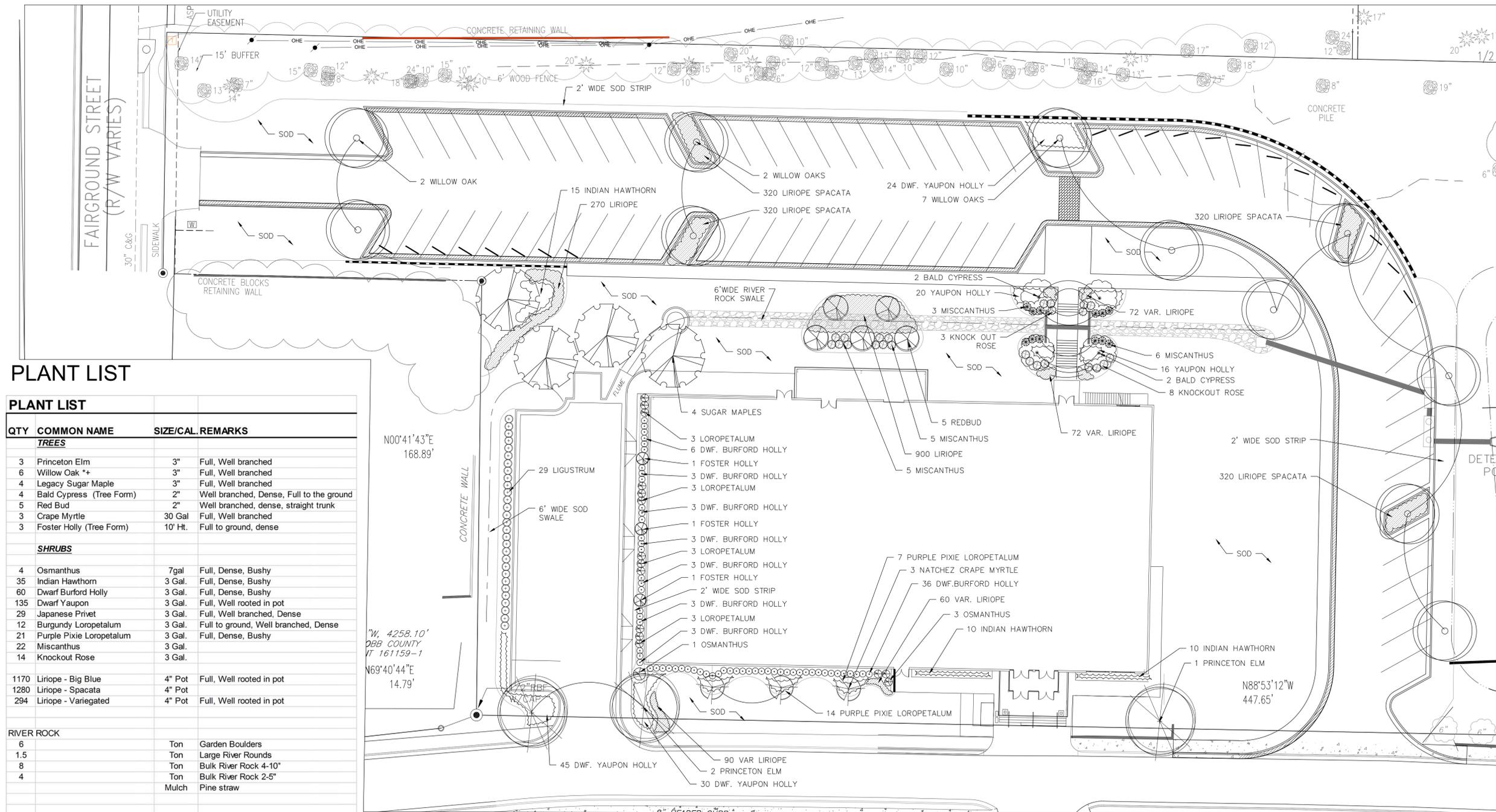


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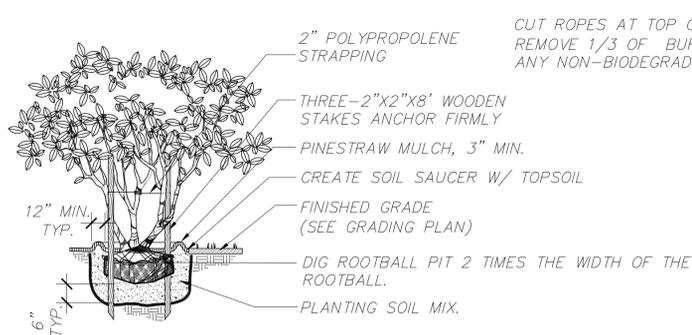
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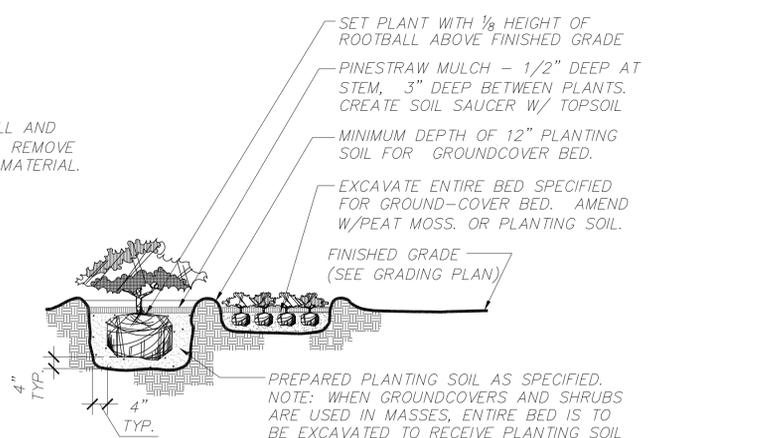
PLANT LIST

| QTY | COMMON NAME | SIZE/CAL. | REMARKS |
|-------------------|--------------------------|-----------|--|
| TREES | | | |
| 3 | Princeton Elm | 3" | Full, Well branched |
| 6 | Willow Oak + | 3" | Full, Well branched |
| 4 | Legacy Sugar Maple | 3" | Full, Well branched |
| 4 | Bald Cypress (Tree Form) | 2" | Well branched, Dense, Full to the ground |
| 5 | Red Bud | 2" | Well branched, dense, straight trunk |
| 3 | Crape Myrtle | 30 Gal | Full, Well branched |
| 3 | Foster Holly (Tree Form) | 10' Ht. | Full to ground, dense |
| SHRUBS | | | |
| 4 | Osmanthus | 7gal | Full, Dense, Bushy |
| 35 | Indian Hawthorn | 3 Gal. | Full, Dense, Bushy |
| 60 | Dwarf Burford Holly | 3 Gal. | Full, Dense, Bushy |
| 135 | Dwarf Yaupon | 3 Gal. | Full, Well rooted in pot |
| 29 | Japanese Privet | 3 Gal. | Full, Well branched, Dense |
| 12 | Burgundy Loropetalum | 3 Gal. | Full to ground, Well branched, Dense |
| 21 | Purple Pixie Loropetalum | 3 Gal. | Full, Dense, Bushy |
| 22 | Miscanthus | 3 Gal. | |
| 14 | Knockout Rose | 3 Gal. | |
| 1170 | Liriope - Big Blue | 4" Pot | Full, Well rooted in pot |
| 1280 | Liriope - Spacata | 4" Pot | |
| 294 | Liriope - Variegated | 4" Pot | Full, Well rooted in pot |
| RIVER ROCK | | | |
| 6 | | Ton | Garden Boulders |
| 1.5 | | Ton | Large River Rounds |
| 8 | | Ton | Bulk River Rock 4-10" |
| 4 | | Ton | Bulk River Rock 2-5" |
| | | Mulch | Pine straw |

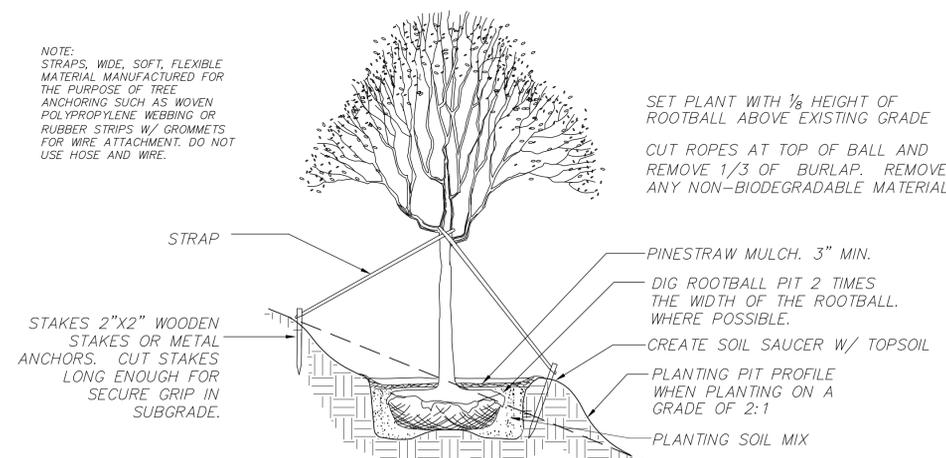
NOTE: Sod is furnished and installed by others
 * WILLOW OAKS: TOTAL 11 SHOWN ON PLAN, 5 FURNISHED AND INSTALLED BY OTHERS



1 MULTI-TRUNK TREE STAKING DETAIL
 N.T.S.



2 SHRUB & GROUNDCOVER PLANTING DETAIL
 N.T.S.



2 TREE PLANTING DETAIL
 N.T.S.

24hr. Contact
 Rich Deckman
 Project Manager
 Marietta Department of
 Parks and Recreation
 (770)-794-5607

| | |
|-----------------------|-----------|
| SHEET TITLE | |
| LANDSCAPE PLAN | |
| DATE: 8/17/15 | SHEET NO. |
| SCALE: AS SHOWN | 1 |
| DESIGN: ERD | |



SECTION 02480 TECHNICAL EXTERIOR LANDSCAPE SPECIFICATIONS

PART 1 GENERAL

- 1.01 DESCRIPTION OF WORK
 - A. Extent of Landscape Work is indicated on Drawings and in Schedules.
 - B. Provide and furnish all labor, materials and equipment required or inferred from Drawings and Specifications to complete the Work of this Section.
- 1.02 QUALITY ASSURANCE
 - A. Reference Standards
 - B. Standardized Plant Names, latest edition, by the American Joint Committee on Horticultural Nomenclature.
 - 1. American Standard for Nursery Stock, ANSI Z601, latest edition, by the American Association of Nurserymen.
 - C. Source Quality Control
 - 1. General: Only plant material grown in a recognized nursery in accordance with good horticultural practice will be accepted. Provide healthy, vigorous stock free of disease, insects, eggs, larvae, and defects such as knots, sun-scald, injuries, abrasions or disfigurement.
 - 2. Inspection of Plant Material prior to Digging:
 - a. Contractor must locate all plant material to be supplied for the Project and inform the Landscape Architect in writing of location within ten (10) days of Award of the Contract.
 - b. Upon request, the Landscape Architect pp will select and tag 100% of plant materials required for the Project, at the Contractor's sources.
 - c. Approval at the plant source does not impair the right of the Landscape Architect to inspect and reject material at the time of shipping or during installation of the Work.
 - 3. Shipping:
 - a. Ship landscape materials with certificates of inspection required by governing authorities. Inspection by Federal and/or State Governments at Grower does not preclude rejection of plants at the site by the Landscape Architect. Comply with regulations applicable to landscape materials. Prepare plants for shipment to prevent damage to the plants.
 - b. From March 15th to September 15th, ship plant material to be transported over 100 miles at night only. Make arrangements to have plant material watered during shipment as necessary to avoid excessive stress. Plant material may be rejected if not properly shipped.
 - c. Do not ship plant material in temperatures below 20 degrees Fahrenheit.
 - C. Do not make substitutions: If specified landscape material is not obtainable, submit to Landscape Architect proof of non-availability and proposal for use of equivalent material. For proof of non-availability submit a written statement from a minimum of 12 reliable Nursery Sources (American Nurserymen's Association Members) that the plant in question is not obtainable in the Eastern United States.
 - D. Analysis and Standards: Package standard products with manufacturer's certified analysis. For other materials, provide analysis by recognized laboratory made in accordance with methods established by the Association of Official Agriculture Chemists, wherever applicable.
 - E. Approval and Selection of Materials and Work: The selection of all materials and the execution of all operations required under the Drawings and Specifications is subject to the approval of the Landscape Architect and the Owner. They have the right to reject any and all materials and any and all Work which, in their opinion, does not meet the requirements of the Contract Documents at any stage of the operations. The Contractor shall remove rejected work and/or materials from Project site and replace promptly.

- 1.03 SUBMITTALS
 - A. Approval: Obtain approval from Landscape Architect for all submittals prior to beginning of Work, unless otherwise noted.
 - B. Topsoil Sample: Submit one quart of topsoil proposed for use.
 - C. Soil Mix Sample: Submit one quart of each proposed soil mix.
 - D. Certification: Prior to acceptance of plant material, submit certificates of inspection as required by governmental authorities, and manufacturer's or vendors certified analysis for soil amendments and fertilizer materials. Submit other data substantiating that materials comply with specified requirements. Submit seed vendor's certified statement for each grass seed mixture required, stating botanical and common name, percentage by weight, and percentages of purity, germination, and weed seed for each grass seed species.
 - E. Maintenance Instructions: Upon completion of the installation, submit typewritten recommendations for maintenance of any portion of the landscape which, in the opinion of the Contractor, requires special attention.

- 1.04 DELIVERY, STORAGE AND HANDLING
 - A. Packaged Materials: Deliver packaged materials in containers showing weight, analysis and name of manufacturer. Protect materials from deterioration during delivery and while stored on site.
 - B. Trees: Provide freshly dug trees. Do not prune prior to delivery. Do not bend or bind-tie trees or shrubs in such manner as to damage bark, break branches or destroy natural shape. Provide protective covering during shipment.
 - C. Deliver trees, after preparations for planting have been completed and plant immediately. If planting is delayed more than 6 hours after delivery, set trees in shade, protect from weather and mechanical damage, and keep roots moist.
 - D. Label at least one tree and one shrub of each variety with a securely attached waterproof tag bearing legible designation of botanical and common name.
 - E. Do not remove labels attached to plant material by the Landscape Architect until directed to do so.

- 1.05 JOB CONDITIONS
 - A. Insurance on plant material and other materials stored or installed is the responsibility of the Contractor. Such insurance shall cover fire, theft and vandalism. Should the Contractor elect not to provide such insurance, he will in no way hold the Owner responsible for any losses incurred by the aforementioned acts. The Contractor is responsible for all costs incurred in replacing damaged or stolen materials prior to Date of Substantial Completion of the Work.
 - B. Proceed with and complete Landscape Work as rapidly as portions of Site become available, working within seasonal limitations for each kind of Landscape Work required.
 - C. Existing Utilities: Determine location of underground utilities. Perform Work in a manner which will avoid possible damage. Excavate as required. Maintain grade stakes set by others unless removal is mutually agreed upon by parties concerned. All damage to utilities resulting from Work covered in these Contract Documents will be repaired at the Contractor's expense.
 - D. Excavation: When conditions detrimental to plant growth are encountered, such as rubble fill, adverse drainage conditions, or obstructions, notify Landscape Architect in writing before planting.
 - E. Planting Time: Plant or install materials during suitable weather conditions.
- 1.06 WARRANTY
 - A. Warranty for a period of one year, following the Date of Substantial Completion, all trees against any defects (including: death and unsatisfactory growth) as determined by the Landscape Architect. Defects resulting from neglect by the Owner, abuse or damage by others, or unusual phenomenon or incidents beyond the Contractor's control are excepted.
 - B. Remove and replace all trees found to be dead or in unhealthy condition during warranty period as determined by Landscape Architect or Owner. Make replacements as soon as weather conditions permit.
 - C. Replacements: Match adjacent specimens of same species. Replacements are subject to all requirements stated in the Contract Documents and are subject to inspection by the Landscape Architect prior to digging.
 - D. Repair grades, lawn areas, paving and any other damage resulting from replacement planting operations, at no additional cost to the Owner.
 - E. Inspect Project Site monthly during warranty period to determine what changes, if any, should be made in the maintenance program. Submit all recommended changes in writing to the Landscape Architect and the Owner.
 - F. Replacements made during the Warranty Period or following inspection for Final Acceptance will carry on additional one year warranty beginning at the time of replacement.

PART 2 PRODUCTS

- 2.01 TOPSOIL
 - A. Topsoil has not been stockpiled for re-use in Landscape Work. The contractor will be required to provide additional topsoil as required to complete Landscape Work.
 - B. Provide new topsoil which is fertile, friable, natural loam, surface soil, reasonably free of subsoil, clay lumps, brush, weeds and other litter, and free of roots, stumps, stones larger than 2" in any dimension, and other extraneous or toxic matter harmful to plant growth.
 - C. Obtain topsoil from local sources or from areas having similar soil characteristics to that found at Project Site. Obtain topsoil only from naturally, well-drained sites where topsoil occurs in a depth of not less than 4"; do not obtain from bogs or marshes, unless specified.

- 2.02 SOIL AMENDMENTS
 - A. Lime: Natural limestone containing 100% of total carbonates, ground so that not less than 90% passes a 10- mesh sieve and 90% passes a 100-mesh sieve.
 - B. Humus: Air dried, finely shredded, and pH range suitable for intended horticultural use. Humus may be peat type or completely decomposed forest type including composted leaves, bark and organic wastes.
 - C. Bonemeal: Commercial, raw, finely ground; 4% nitrogen and 20% phosphoric acid.
 - D. Superphosphate: Soluble mixture of treated minerals; 20% available phosphoric acid.
 - E. Commercial Fertilizer: Complete fertilizer of neutral character, with some elements derived from organic sources and containing following percentages of available plant nutrients:
 - 1. For trees and shrubs and ground cover, provide a homogeneous fertilizer complete with micro nutrients having an analysis of 12-4-8 (12 pounds of nitrogen, 4 pounds of available phosphoric acid, and 8 pounds of water soluble potash respectively for each 100 pounds of mixture).
 - 2. For lawns, provide fertilizer in accordance with results and recommendations of soil report relative to lawn installation. Provide nitrogen in a form that will be available to lawn during initial period of growth.

- 2.03 PLANTING SOIL MIX
 - A. Planting soil mix for on-grade plantings: Unless otherwise directed by the Landscape Architect, basic planting soil mix consists of:
 - 20% topsoil (as specified)
 - 70% native soil (Clean, free of rock, debris, and inorganic material)

- 2.04 PLANT MATERIALS
 - A. General
 - 1. Provide plants true to species and variety, complying with recommendations of ANSI Z60.1 "American Standard for Nursery Stock".
 - 2. Specific requirements concerning plant material and the manner in which it is to be supplied are shown on the Drawings and Plant List.
 - 3. Acclimatization: Plants must have grown under climatic conditions similar to those of the locality of the project site for a minimum of two years immediately prior to being planted on the Project.
 - B. Quality and Size
 - 1. Furnish nursery grown plants, freshly dug, normally shaped and well branched, fully foliated when in leaf and with healthy well developed root systems. Plants to be free of insect infestations or their eggs.
 - 2. Furnish plants to match as closely as possible whenever symmetry is called for.
 - 3. Provide trees of sizes shown or specified. Trees of larger size may be used if acceptable to the Landscape Architect, and if sizes of roots or rootballs are increased proportionately. The increased size will not result in additional cost to the Owner.
 - 4. Stock specified in a size range: Within each size range not less than 50% of the plants must be of the maximum size specified.
 - 5. Balled and Burlapped Plants: Plants designated "B&B" are to have firm, natural balls of soil corresponding to sizes specified in ANSI Z60.1 "American Standard for Nursery Stock". Balls to be firmly wrapped in biodegradable burlap and securely tied with biodegradable heavy twine, rope and/or wire baskets. Plants with loose, broken or manufactured rootballs will be rejected. Rootballs shall be lifted from the bottom only, not by stems or trunks.
 - 6. Container grown plants in cans or plastic containers will be acceptable in lieu of balled and burlapped plants provided that they are of specified quality. The container must be removed prior to planting, with care being exercised as to not injure the plant.
 - C. Trees
 - 1. Provide trees of height and caliper listed or shown and with branching configuration recommended by ANSI Z60.1 for type and species required. Provide single stem trees except where special forms are specified in the Contract Documents.
 - 2. Provide self supporting trees with straight trunks and leaders intact. Where required in the Contract Documents, provide trees with character as described.
 - 3. Determining dimensions for trees are caliper, height and spread. Caliper shall be measured 6" above ground for trees up to and including 4" caliper. Trees over 4" caliper shall be measured 12" above ground. Specified height and spread dimensions refer to the main body of the plant and not branch tip to tip. Take measurements with branches in natural position.
 - D. Tree Forms: Do not limb up tree forms more than 2 feet before planting. Prune to desired shape as directed by Landscape Architect.

- 2.05 MISCELLANEOUS LANDSCAPE MATERIALS
 - A. Stakes and deadmen: Grade No. 2 or better, uniform grade pressure treated pine LP-22, or sound new hardwood or redwood free of knotholes and other defects.
 - B. Anchors: #4 rebars or comparable size steel stakes, 36 inches in length.
 - C. Corrugated Drain Pipe and Fittings: Black, ASTM F-405 with integral filter fabric.
 - D. Soil separator: Rot resistant polypropylene filter fabric, water permeable, and unaffected by freeze-thaw.
 - E. Drainage Gravel: Clean #57 crushed stone. (Variable check with state D.O.T)
 - F. Mulch:
 - 1. Pinestraw: Clean, fresh, dark brown, and free of branches, cones, foreign matter, insects and disease.
 - J. Lawn Anti-Erosion Mulch: Clean, threshed straw of wheat, rye, oats or barley.
 - K. Drainage Matting with integral filter fabric to be Mira Drain 9000 as manufactured by Mirfil, Inc., Charlotte, North Carolina (800) 438-1855, or approved equal.
 - L. Drain Pipe: 4" corrugated perforated polyethylene drain tubing with green stripe as manufactured by Advanced Drainage Systems (ADS) or equal.

PART 3 EXECUTION

- 3.01 PREPARATION
 - A. General
 - 1. Contractor shall examine conditions under which planting is to be installed, review applicable architectural and engineering drawings, and be familiar with alignment of underground utilities before digging.
 - 2. Planting time: Planting operations are to be performed at such times of the year as the job may require, with the stipulation that the Contractor guarantees the plant material as specified. Plant only during periods when weather conditions are suitable.
 - 3. Layout individual tree and shrub locations and areas for multiple plantings. Stake locations and outline areas and secure Landscape Architect's acceptance before start of excavation for planting work. Make adjustments as may be requested.
 - 4. Notify Landscape Architect of adverse sub-surface drainage or soil conditions. State conditions and submit a proposal for correction including costs. Obtain approval for method of correction prior to continuing Work in the affected area. In the event that alternate locations are selected, the Contractor shall prepare such areas at no additional expense to the Owner.
 - B. Excavation for Trees:
 - 1. Excavate pits, beds and trenches, as specified and as shown on the drawings.
 - 2. Loosen hardpan and moisture barrier until hardpan has been broken and moisture is allowed to drain freely.
 - 3. For balled and burlapped (B&B trees and shrubs), make excavations at least 2 times the width of the ball diameter for the top 12" of the pit. For the remaining depth of the pit, excavate at least 2 feet wider than the ball diameter and equal to the ball depth, plus an allowance for setting of ball on a layer of compacted backfill. Allow for 6" minimum setting layer of excavated soil.
 - 4. Soil removed to excavate tree pit should be cleaned as necessary to remove debris including rocks, wood, garbage, etc. When encountering gravel or waste soil, import planting mix as specified.
 - 5. For container grown stock, excavate as specified for balled and burlapped stock, adjusted to size of container width and depth.
 - C. Test Drainage
 - 1. Tree pits: When requested, fill 50% to every 3rd pit with water. If percolation is less than 100% within a period of 12 hours, drill a 10" hole auger to a depth of 4 feet below the bottom of the pit. Fill auger hole with drainage gravel and cover with soil separator. Retest pit. In case drainage remains unsatisfactory, notify Landscape Architect, in writing, of the condition before planting trees in the questionable areas. Contractor is fully responsible for warranty of the trees and specimen shrubs.

- 3.02 PREPARATION OF PLANTING SOIL
 - D. Before mixing, break up native soil removed from pit excavation, clean topsoil of roots, plants, clods, stones, clay lumps, and other extraneous materials harmful or toxic to plant growth.

- 3.03 PLANTING TREES
 - A. Set balled and burlapped (B&B) stock on layer of compacted planting soil mixture, plumb and in center of pit or trench with top of ball 2"-3" above the finish grade and also 2"-3" above the grade they bore to natural grade before transplanting. Remove all straps and ropes made of man-made fibers completely from rootball. Loosen and remove burlap and biodegradable ropes from top half of rootball. Cut and remove the top half of all wire baskets before backfilling. Use planting soil mixture to backfill plant pits. When plants are set, place additional backfill around base and sides of ball, and work each layer to settle backfill and eliminate voids and air pockets. When excavation is approximately 2/3 full, water thoroughly before placing remainder of backfill. Repeat watering until no more is absorbed. Water again after placing final layer of backfill.
 - B. Contractor shall remove all man made or impervious materials from the rootball and trunk before final installation of trees and specimen shrubs.
 - C. Set container grown stock as specified for balled and burlapped stock, except remove containers, without damaging rootballs, prior to backfilling.
 - D. Mulching: Immediately after planting work has been completed, mulch pits, trenches and planting beds. Provide a minimum depth of 2" bark or 3" pinestraw. Finish edges according to detail.
 - E. Water: Soak all plants immediately after planting, continue watering thereafter as necessary until Substantial Completion.
 - F. Smooth planting areas to conform to specified grades after full settlement has occurred and mulch has been applied.

- 3.04 STAKING, GUYING AND PRUNING
 - A. Stake and guy trees immediately after planting as indicated on plans. Plants shall be plumb after staking or guying. Maintain stakes and guys until acceptance of the Work in total.
 - B. Guying trees of 3" caliper and larger: Guy trees according to detail. Position guys around trunk at approximately two-fifths the height of the tree. Anchor guys in ground either to notched stakes or steel rods driven securely into ground with top end 3" below finish grade.
 - C. Pruning: Unless otherwise directed by the Landscape Architect do not cut tree leaders, and remove only injured or dead branches from trees, if any. Prune shrubs at the direction of the Landscape Architect.
 - D. Remove and replace promptly any plants pruned or mis-formed resulting from improper pruning.
 - E. Inspect tree trunks for injury, improper pruning and insect infestation and take corrective measures.

- 3.05 MAINTENANCE
 - A. Begin maintenance immediately after planting.
 - B. Maintain trees until Date of Substantial Completion of the Work in total.
 - C. Maintain trees by watering, pruning, cultivating, weeding, and re-mulching as required for healthy growth. Restore planting saucers. Tighten and repair stake and guy supports as required. Restore or replace damaged wrappings. Spray as required to keep trees free of insects and disease.

- 3.06 CLEAN UP AND PROTECTION
 - A. During Landscape Work, keep pavements clean and work area in an orderly condition.
 - B. Upon completion of Work, clear grounds of debris, superfluous materials and all equipment. Remove from Site to satisfaction of Landscape Architect and Owner.
 - C. Protect Landscape Work and materials from damage due to landscape operations, operations by other contractors and trades and trespassers. Maintain protection during installation and maintenance periods. Treat, repair or replace damaged Landscape Work as directed, at no additional cost to the Owner.
 - D. Theft: Contractor is responsible for theft of plant material at the Project Site before, during and after planting, until the Date of Substantial Completion of the Work in total.

- 3.07 INSPECTION AND ACCEPTANCE
 - A. Periodic inspections will be made from time to time by the Landscape Architect to review the quality and progress of the work. Work found to be unacceptable must be corrected within five calendar days. Remove rejected plants and materials promptly from project site.
 - B. Upon completion of Work, the Contractor shall notify the Landscape Architect and the Owner at least ten (10) days prior to requested date of inspection for Substantial Completion of all or portions of the Work. Landscape Architect will issue a punch list for work to be corrected. All work in the punch list must be completed within five (5) working days from date of inspection. Where inspected Work does not comply with requirements, replace rejected Work and continue specified maintenance until re-inspected by Landscape Architect and found to be acceptable.
 - C. Certificate of Substantial Completion will be issued for acceptable Work. If punch list items are issued with the Certificate, they must be corrected within five (5) working days.
 - D. One Year Warranty commences on the date of issuance of the Certificate of Substantial Completion.
 - E. Final Acceptance: One year after Date of Substantial Completion of the Work in total the Landscape Architect and the Owner inspect the Work for Final Acceptance. Upon satisfactory completion of repairs and/or replacements the landscape Architect certifies, in writing, the Final Acceptance of the Work. The Final Acceptance Certification issued by Landscape Architect will serve as evidence that Contractor's one-year warranty obligations have been met.

City of Marietta
 Department of Parks and Recreation
 P.O. Box 609
 205 Lawrence Street
 Marietta, GA 30061

Phone: (770) 794-5601
 Fax: (770) 794-5635

CLUSTER RECREATION CENTER

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24hr. Contact
 Rich Deckman
 Project Manager
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