### I LANDSCAPE ARCHITECT GENERAL NOTES:

SUMMARY, POINTS OF CONTACT, VERIFICATION, PROTECTION DURING CONSTRUCTION, AND

A. SUMMARY: THE FOLLOWING ARE GENERAL NOTES PERTAINING TO JBPRO-PRODUCED LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS. SUPPLEMENTAL NOTES ARE PROVIDED FOR THE FOLLOWING BASED THE REQUIREMENTS OF AUTHORITIES HAVING

- JURISDICTION AND SITE CONDITIONS. 1. TREE AND PLANT PROTECTION/TREE MITIGATION NOTES, DETAILS, AND PLAN DRAWINGS.
- 2. SOIL AMENDMENT AND LANDSCAPE NOTES, DETAILS, AND PLAN DRAWINGS.
- 3. ENHANCED HARDSCAPE NOTES, DRAWINGS, AND PLAN DETAILS.
- 4. LANDSCAPE LIGHTING NOTES, DETAILS, AND PLAN DRAWINGS. 5. IRRIGATION NOTES, DETAILS, AND PLAN DRAWINGS.

B. THE CONTRACTOR SHALL PROVIDE ALL PERMITTING APPLICATIONS AND FEES, LABOR, MATERIALS, TOOLS, EQUIPMENT, FACILITIES, TRANSPORTATION AND SERVICES NECESSARY FOR, AND INCIDENTAL TO PERFORMING ALL OPERATIONS AS SHOWN ON THE LANDSCAPE

ARCHITECTURAL PLAN AND DETAIL DRAWINGS. 1. THE LANDSCAPE ARCHITECT MAY OBSERVE THE WORK AT ANY TIME, AND S/HE MAY REMOVE SAMPLES OF MATERIALS TO VERIFY CONFORMITY TO SPECIFICATIONS.

2. UPON WRITTEN NOTICE OF THE LANDSCAPE ARCHITECT, THE CONTRACTOR SHALL RE-EXECUTE ANY WORK THAT FAILS TO CONFORM TO STANDARDS, SPECIFICATIONS, AND CODES WITHIN THESE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS, AND THE CONTRACTOR SHALL REMEDY DEFECTS DUE TO FAULTY MATERIALS OR WORKMANSHIP AT THE SOONEST POSSIBLE IME

THAT CAN BE COORDINATED WITH OTHER WORK AND SEASONAL WEATHER DEMANDS. a. REJECTED MATERIALS SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND REPLACED AT THE CONTRACTOR'S EXPENSE. THE COST OF TESTING MATERIALS NOT MEETING SPECIFICATIONS SHALL BE PAID BY THE CONTRACTOR.

b. IN THE EVENT THAT CONSTRUCTION WORK DAMAGES EXISTING SOIL IN AREAS DESIGNATED FOR USE AS PLANTING SOIL, TO THE POINT WHERE THE SOIL IS NO LONGER SUITABLE TO SUPPORT THE PLANTS SPECIFIED, THE CONTRACTOR SHALL PROVIDE MODIFICATION OF THE DAMAGED SOIL UP TO AND INCLUDING REMOVAL AND REPLACEMENT WITH SOIL OF EQUAL QUALITY TO THE SOIL THAT EXISTED PRIOR TO CONSTRUCTION.

c. THE CONTRACTOR SHALL PROTECT INSTALLED AND/OR MODIFIED PLANTING SOIL FROM DAMAGE INCLUDING CONTAMINATION AND OVER COMPACTION. UTILIZE FENCING AND MATTING AS REQUIRED OR DIRECTED TO PROTECT THE FINISHED SOIL WORK. TREAT, REPAIR OR REPLACE DAMAGED PLANTING SOIL IMMEDIATELY.

1) EXAMPLES OF DAMAGE INCLUDE FURTHER COMPACTION, CONTAMINATION, GRADING, CREATION OF HARD PAN OR DRAINAGE PROBLEMS, AND LOSS OF THE "O" AND OR "A" SOIL HORIZONS.

3. THE GENERAL CONTRACTOR CAN REQUESTS A PRE-CONSTRUCTION CONFERENCE TO REVIEW THE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS AT LEAST TEN (10) BUSINESS DAYS BEFORE BEGINNING WORK (I.E. THE INSTALLATION OF TREE AND PLANT PROTECTION FENCING) ON THE SITE.

C. POINTS OF CONTACT: THE GENERAL CONTRACTOR SHALL SUBMIT TO THE LANDSCAPE ARCHITECT THE FOLLOWING.

□ 1.	POSITION	COMPANY NAME	TELE	PHONE	EMAIL		
	PROJECT MANAGER						
	SITE SUPERINTENDENT						
	CONSULTING ARBORIST						
□ 2.	PROJECT TASK(S)			COMPA	NY / FIRM NAME		
	CLEARING AND GRADING						
	INSTALLATION / MAINTENANCE OF TREE PROTECTION FENCING						
	PESTICIDE APPLICATION						
	COMPOST SUPPLIER						
	SOIL AMENDMENT(S) SUPPLIER(S)						
	NURSERY(IES) / PLANT GROWER(S)						
	LANDSCAPE INSTALLER						
	IRRIGATION INSTALLER						
	ANY OTHER COMPANY / F TRENCH WITHIN PROJEC		/ATE /				

3. THE LANDSCAPE ARCHITECT SHALL ONLY COMMUNICATE DIRECTLY TO THE OWNER, GENERAL CONTRACTOR'S PROJECT MANAGER (PM), AND/OR SUPERINTENDENT UNLESS OTHERWISE REQUESTED BY THE OWNER AND/OR GENERAL CONTRACTOR PM.

D. VERIFICATION: THE CONTRACTOR SHALL COMPLY WITH ALL LAWS, CODES, ORDINANCES, AND REGULATIONS BEARING ON THE OPERATION OR CONDUCT OF THE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS.

1. BEFORE PROCEEDING WITH ANY WORK, THE CONTRACTOR SHALL CAREFULLY CHECK AND VERIFY ALL DIMENSIONS AND QUANTITIES, EXISTING VEGETATION TO REMAIN, SURFACE GRADES,

AND SOIL CONDITIONS. a. VERIFY THE SUBGRADE IS AT THE PROPER ELEVATION AND COMPACTED AS REQUIRED. b. VERIFY ALL SURFACE AREAS TO BE FILLED WITH PLANTING SOIL ARE FREE OF

CONSTRUCTION DEBRIS, REFUSE, COMPRESSIBLE OR BIODEGRADABLE MATERIALS, STONES GREATER THAN TWO INCHES (2") DIAMETER, SOIL CRUSTING FILMS OF SILT OR CLAY THAT REDUCES OR STOPS DRAINAGE FROM THE PLANTING SOIL INTO THE SUBSOIL; AND/OR STANDING WATER. REMOVE UNSUITABLE MATERIAL FROM THE SITE.

c. VERIFY NO ADVERSE DRAINAGE CONDITIONS ARE PRESENT.

d. VERIFY NO CONDITIONS ARE PRESENT WHICH ARE DETRIMENTAL TO PLANT GROWTH. e. VERIFY UTILITY WORK HAS BEEN COMPLETED PRIOR TO LANDSCAPE INSTALLATION.

f. ALTHOUGH SIZES AND LOCATIONS OF PLANTS AND OR IRRIGATION EQUIPMENT ARE DRAWN TO SCALE WHEREVER POSSIBLE, IT IS NOT WITHIN THE SCOPE OF THE DRAWINGS TO

SHOW ALL NECESSARY OFFSETS, OBSTRUCTIONS, OR SITE CONDITIONS. 1) THE LANDSCAPE ARCHITECT DRAWS IRRIGATION PIPING AND RELATED EQUIPMENT DIAGRAMMATICALLY. SCALED DIMENSIONS ARE APPROXIMATE ONLY.

2) PIPING AND EQUIPMENT IS TO BE LOCATED WITHIN THE DESIGNATED PLANTING AREAS WHEREVER POSSIBLE UNLESS SPECIFICALLY DEFINED OR DIMENSIONED OTHERWISE 3) THE CONTRACTOR SHALL BE RESPONSIBLE TO INSTALL THE WORK IN SUCH A MANNER

THAT IT WILL BE IN CONFORMANCE TO SITE CONDITIONS, COMPLETE, AND IN GOOD WORKING ORDER. 4) COORDINATE THE RELOCATION OF ANY IRRIGATION LINES, HEADS OR THE CONDUITS OF

OTHER UTILITY LINES THAT ARE IN CONFLICT WITH PROTECTED OR PROPOSED TREE LOCATIONS. g. VERIFY IRRIGATION WORK, WHICH IS SHOWN TO BE INSTALLED BELOW PREPARED SOIL LEVELS, HAS BEEN COMPLETED PRIOR TO THE LANDSCAPE INSTALLATION.

 $\ \square$  2. AT ANY TIME PRIOR TO OR DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY

SUBMIT IN WRITING A LIST OF ANY DISCREPANCIES BETWEEN THE INFORMATION ON THE PLANS AND THE ACTUAL CONDITIONS TO THE LANDSCAPE ARCHITECT.

 $\ \square$  3. At any time prior to or during construction, the contractor shall IMMEDIATELY SUBMIT WRITING A LIST OF ANY CONDITIONS THAT MAY IMPACT THE SUCCESSFUL PROTECTION OF EXISTING VEGETATION, AMENDING OF SOIL, INSTALLATION OF NEW VEGETATION, INSTALLATION OF THE IRRIGATION SYSTEM, AND ANY OTHER PORTION OF THE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS.

a. THE CONTRACTOR SHALL INCLUDE A DESCRIPTION OF ANY PROPOSED CHANGES TO WORK, SCHEDULE, AND COST.

4. THE CONTRACTOR SHALL INFORM THE LANDSCAPE ARCHITECT OF THE PROGRESS OF THE WORK SO THE LANDSCAPE ARCHITECT MAY OBSERVE KEY TIMES IN THE CONSTRUCTION PROCESS. PRIOR TO THE START OF WORK, THE CONTRACTOR SHALL SUBMIT A SCHEDULE TO THE LANDSCAPE ARCHITECT FOR THE FOLLOWING, AND MAINTAIN THE LANDSCAPE ARCHITECT OF CHANGES TO THE SCHEDULE:

ACTIVITY	DATE
INSTALLATION OF TREE PROTECTION FENCING	
PRUNING OF TREES TO REMAIN	
DELIVERY AND INSTALL OF SOIL MIXES / AMENDMENTS	
DELIVERY AND INSTALL OF LANDSCAPE MATERIAL	
INSTALL AND TEST OF IRRIGATION SYSTEM	
SUBSTANTIAL COMPLETION WALK-THROUGH OF SITE	

a. THE FAILURE OF THE LANDSCAPE ARCHITECT TO MAKE FIELD OBSERVATIONS SHALL NOT RELIEVE THE CONTRACTOR FROM MEETING ALL THE REQUIREMENTS OF THIS SPECIFICATION.

**E. REFERENCES:** THE FOLLOWING APPLIES TO REFERENCED STANDARDS, SPECIFICATIONS, AND CODES WITHIN THESE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS. 1. IN THE EVENT THAT THE REQUIREMENTS OF THE REFERENCED STANDARDS, SPECIFICATIONS, AND CODES CONFLICT WITH THESE LANDSCAPE ARCHITECTURAL DETAILS AND DRAWINGS, THE REQUIREMENTS OF THESE DETAILS AND DRAWINGS SHALL PREVAIL. 2. IN THE EVENT THAT THE REQUIREMENTS OF ANY OF THE REFERENCED STANDARDS,

SPECIFICATIONS, AND CODES CONFLICT WITH EACH OTHER THE MORE STRINGENT REQUIREMENT

SHALL PREVAIL. 3. WHEREVER REFERENCES ARE MADE TO STANDARDS, SPECIFICATIONS, AND CODES IN ACCORDANCE WITH WHICH WORK IS TO BE PERFORMED OR TESTED, THE EDITION OR REVISION OF THE STANDARDS, SPECIFICATIONS, AND CODES CURRENT ON THE PERMITTED DATE OF THESE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS SHALL APPLY UNLESS OTHERWISE EXPRESSLY SET FORTH.

4. WEBSITES LISTED IN THE LIST OF REFERENCES BELOW MAY NOT BE THE MOST CURRENT EDITION OF THE PUBLICATIONS. THE LANDSCAPE ARCHITECT OF RECORD IS PROVIDING THEM TO ASSIST THE CONTRACTOR'S DUE DILIGENCE.

5. IN THE EVENT THE CONTRACTOR DISCOVERS ANY OF THE ABOVE CONDITIONS, IMMEDIATELY CONTACT THE LANDSCAPE ARCHITECT.

### F. THE MOST CURRENT EDITION OF FOLLOWING STANDARDS, SPECIFICATIONS, AND CODES APPLY TO THESE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS:

1. FOR THE PROTECTION OF EXISTING TREES AND OTHER PLANTS: a. ANSI A300 (PART 5), TREE, SHRUB, AND OTHER WOOD PLANT MANAGEMENT - STANDARD PRACTICES (MANAGEMENT OF TREES AND SHRUBS DURING SITE PLANNING, SITE DEVELOPMENT, AND CONSTRUCTION. TREE CARE INDUSTRY ASSOCIATION, INC., LONDONDERRY, NEW HAMPSHIRE.

b. STRUCTURAL PRUNING: A GUIDE FOR THE GREEN INDUSTRY. BY EDWARD F. GILMAN ET AL. PUBLISHED BY URBAN TREE FOUNDATION, VISALIA, CALIFORNIA. c. GLOSSARY OF ARBORICULTURAL TERMS. INTERNATIONAL SOCIETY OF ARBORICULTURE,

CHAMPAIGN, ILLINOIS. d. BEST MANAGEMENT PRACTICES - PRUNING. SHARON J. LILLY, EDWARD F. GILMAN, AND E. THOMAS SMILEY. INTERNATIONAL SOCIETY OF ARBORICULTURE, CHAMPAIGN, ILLINOIS. e. SEE SUPPLEMENTAL NOTES FOR TREE AND PLANT PROTECTION STARTING WITH SHEET

LT-01 FOR MUNICIPAL LAND DEVELOPMENT CODE REQUIREMENTS. 2. FOR THE FURNISHING, DELIVERY, AND INSTALLATION OF PLANTING SOIL AND/OR THE MODIFICATION OF EXISTING SITE SOIL FOR USE AS PLANTING SOIL:

a. STANDARD SPECIFICATION FOR AGRICULTURAL LIMING MATERIALS, ASTM C602-20. ASTM INTERNATIONAL, WEST CONSHOHOCKEN, PENNSYLVANIA, AVAILABLE FOR PURCHASE ONLINE AT <a href="https://www.astm.org/c0602-20.html">https://www.astm.org/c0602-20.html</a>.

b. "FINE AGGREGATE" IN STANDARD SPECIFICATION FOR CONCRETE AGGREGATES, ASTM C33/C33M-18. ASTM INTERNATIONAL, WEST CONSHOHOCKEN, PENNSYLVANIA, AVAILABLE FOR PURCHASE ONLINE AT <a href="https://www.astm.org/c0033">https://www.astm.org/c0033</a> c0033m-18.html>.

c. Parts 613 to 617, "Soil Classifications," and Parts 618 to 625, "Soil Qualities," NATIONAL SOIL SURVEY HANDBOOK, TITLE 430. U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE. AVAILABLE ONLINE AT

<https://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=49659.wba> d. "TREE & SHRUB CLASS," "FLOWER & VEGETABLE GARDEN CLASS," AND "LAWNS," CONSUMER COMPOST USE PROGRAM. U.S. COMPOSTING COUNCIL. AVAILABLE ONLINE AT <a href="https://www.compostingcouncil.org/page/CCUPMethodsAmounts">https://www.compostingcouncil.org/page/CCUPMethodsAmounts</a>

e. METHODS OF SOIL ANALYSIS, PART 1: PHYSICAL AND MINERALOGICAL METHODS. ARNOLD KLUTE, EDITOR. THE SOIL SCIENCE SOCIETY OF AMERICA, INC. f. UP BY ROOTS: HEALTHY SOILS AND TREES IN THE BUILT ENVIRONMENT. J. URBAN.

INTERNATIONAL SOCIETY OF ARBORICULTURE, CHAMPAIGN, ILLINOIS. g. TEST METHOD FOR THE EXAMINATION OF COMPOSTING AND COMPOST (TMECC). U.S. COMPOSTING COUNCIL. AVAILABLE ONLINE AT

<a href="https://www.compostingcouncil.org/page/tmecc">https://www.compostingcouncil.org/page/tmecc>.</a> h. ELEMENTS OF THE NATURE AND PROPERTIES OF SOILS. NYLE C. BRADY AND RAY R. WEIL. PEARSON EDUCATION, INC., UPPER SADDLE RIVER, NEW JERSEY.

3. FOR THE FURNISHING, DELIVERY, INSTALLATION, AND NAMING OF VEGETATION (ALSO KNOWN AS "LANDSCAPING"): a. ANSI Z60.1 AMERICAN STANDARD FOR NURSERY STOCK. AMERICAN HORTICULTURE

INDUSTRY ASSOCIATION, COLUMBUS, OHIO. AVAILABLE ONLINE AT <www.americanhort.site-ym.com/resource/collection/38ED7535-9C88-45E5-AF44-01C26838AD0C/</p> ANSI\_Nursery\_Stock\_Standards\_AmericanHort\_2014.pdf>

b. ANSI A300 (PART 5), TREE, SHRUB, AND OTHER WOOD PLANT MANAGEMENT - STANDARD PRACTICES (MANAGEMENT OF TREES AND SHRUBS DURING SITE PLANNING, SITE DEVELOPMENT, AND CONSTRUCTION. TREE CARE INDUSTRY ASSOCIATION, INC., LONDONDERRY, NEW HAMPSHIRE

c. FLORIDA GRADES AND STANDARDS FOR NURSERY STOCK. FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES, TALLAHASSEE, FLORIDA. AVAILABLE ONLINE AT <www.ifas.ufl.edu/media/sfylifasufledu/hillsborough/docs/pdf/environmentalhort/grades-and-</p> standards-for-nursery-plants-2022.pdf>

d. THE GERMPLASM RESOURCES INFORMATION NETWORK (GRIN), U.S. DEPARTMENT OF AGRICULTURE. AVAILABLE ONLINE AT <http://www.ars-grin.gov/npgs/searchgrin.html> e. MANUAL OF WOODY LANDSCAPE PLANTS. MICHAEL DIRR. STIPES PUBLISHING,

CHAMPAIGN, ILLINOIS. f. STRUCTURAL PRUNING: A GUIDE FOR THE GREEN INDUSTRY. BY EDWARD F. GILMAN ET AL. PUBLISHED BY URBAN TREE FOUNDATION, VISALIA, CALIFORNIA.

g. GLOSSARY OF ARBORICULTURAL TERMS. INTERNATIONAL SOCIETY OF ARBORICULTURE,

CHAMPAIGN. ILLINOIS.

h. LANDSCAPING WITH CONIFERS AND GINKGO FOR THE SOUTHEAST. BY TOM COX AND JOHN M. RUTER. UNIVERSITY OF FLORIDA PRESS, GAINESVILLE, FLORIDA.

i. BETROCK'S REFERENCE GUIDE TO FLORIDA LANDSCAPE PLANTS. TIMOTHY K. BROSCHAT AND ALAN W. MEEROW. UNIVERSITY OF FLORIDA, GAINESVILLE, FLORIDA.

j. BEST MANAGEMENT PRACTICES - PRUNING. SHARON J. LILLY, EDWARD F. GILMAN, AND E. THOMAS SMILEY. INTERNATIONAL SOCIETY OF ARBORICULTURE, CHAMPAIGN, ILLINOIS. k. "LIST OF INVASIVE PLANT SPECIES." FLORIDA INVASIVE SPECIES COUNCIL (FISC). AVAILABLE

ONLINE AT <a href="https://floridainvasivespecies.org/plantlist.cfm">https://floridainvasivespecies.org/plantlist.cfm</a> I. SEE SUPPLEMENTAL NOTES FOR LANDSCAPING STARTING WITH SHEET LP-01 FOR MUNICIPAL LAND DEVELOPMENT CODE REQUIREMENTS.

4. FOR THE FURNISHING, DELIVERY, AND INSTALLATION OF NECESSARY FOR THE INSTALLATION OF A LANDSCAPE IRRIGATION SYSTEM.

a. PROPOSED CONSTRUCTION BUILDING CODES FOR TURF AND LANDSCAPE IRRIGATION SYSTEMS. APPENDIX F, 2023 FLORIDA BUILDING CODE, PLUMBING. 8<sup>1 H</sup> EDITION. AVAILABLE

<a href="https://codes.iccsafe.org/content/FLPC2023P1/appendix-f-proposed-construction-building-codes-

for-turf-and-landscape-irrigation-systems> b. RAIN BIRD LANDSCAPE IRRIGATION CATALOG. AVAILABLE ONLINE AT

<a href="https://www.rainbird.com/landscape/rain-bird-landscape-irrigation-catalog">https://www.rainbird.com/landscape/rain-bird-landscape-irrigation-catalog</a> c. HUNTER IRRIGATION PRODUCT CATALOG. AVAILABLE ONLINE AT

<a href="https://www.hunterindustries.com/product-catalog-and-parts-list">https://www.hunterindustries.com/product-catalog-and-parts-list</a>

PROPERTY. SHALL BE CLEANED. REPAIRED OR REPLACED BY THE CONTRACTOR.

d. SEE SUPPLEMENTAL NOTES FOR IRRIGATION START ON SHEET LI-01 FOR MUNICIPAL LAND DEVELOPMENT CODE REQUIREMENTS.

G. PROTECTION DURING CONSTRUCTION: THE CONTRACTOR SHALL PROTECT PLANTING AND RELATED WORK AND OTHER SITE WORK FROM DAMAGE DUE TO PLANTING OPERATIONS, OPERATIONS BY OTHER CONTRACTORS OR TRESPASSERS. MAINTAIN PROTECTION DURING INSTALLATION UNTIL SUBSTANTIAL COMPLETION ACCEPTANCE. TREAT, REPAIR OR REPLACE

DAMAGED WORK IMMEDIATELY. 1. THE CONTRACTOR SHALL PROVIDE ADDITIONAL TEMPORARY EROSION CONTROL TO STOP SOIL EROSION UNTIL THE SITE IS STABILIZED WITH MULCH. PINE STRAW. AND/OR ESTABLISHED PLANTINGS AND TURF.

2. DAMAGE DONE BY THE CONTRACTOR, OR ANY SUB-CONTRACTORS, TO EXISTING OR INSTALLED PLANTS, OR ANY OTHER PARTS OF THE WORK OR EXISTING FEATURES TO REMAIN. INCLUDING ROOTS, TRUNK OR BRANCHES OF LARGE EXISTING TREES, SOIL, PAVING, UTILITIES, LIGHTING, IRRIGATION, OTHER FINISHED WORK AND SURFACES INCLUDING THOSE ON ADJACENT

### H. THE FOLLOWING ARE DEFINITIONS APPLICABLE TO THESE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS PER AUTHORITIES HAVING JURISDICTION:

1. REFERENCE: (INSERT LAND DEVELOPMENT CODE ARTICLE(S) APPLICABLE TO THE PROJECT)

a. DEFINITIONS (E.G. SURVEYED TREE, PROTECTED TREE, HERITAGE TREE, ETC.)

b. TREE MITIGATION c. TREE PROTECTION CREDIT CALCULATIONS

d. LANDSCAPE REQUIREMENTS (INCLUDES PERIMETER BUFFERS, SITE, PARKING LOT/VEHICLE

USE AREAS, AND BUILDING FACADES) e. LANDSCAPE LIGHTING

f. SIGNAGE g. MISCELLANEOUS

☐ DENOTES GUIDELINES FOR CONTRACTOR SUBMITTAL TO LANDSCAPE ARCHITECT

--- END LANDSCAPE ARCHITECTURAL GENERAL NOTES ---



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LANDSCAPE ARCHITECT GENERAL NOTES

**MAY 2025** ROJECT NO: 0802-24-001

CLIENT: MICANOPY AREA COOPERATIVE SCHOOL INC MICANOPY, FL

MACS PRE-K BUILDING EXPANSION

**LG-01** 

SHEET NO:

REVISIONS

NO. DATE

## | SUPPLEMENTAL LANDSCAPE ARCHITECT NOTES FOR SOIL AMENDMENTS AND LANDSCAPE INSTALLATION:

### PART I. DEFINITIONS AND BASIS OF DESIGN FOR SOIL AMENDMENT PRODUCTS.

A. DEFINITIONS: THE FOLLOWING PROVIDES SPECIFIC NOTES FOR EXISTING SOIL AND AMENDMENTS TO EXISTING SOIL PRIOR TO THE LANDSCAPE INSTALLATION. THE FOLLOWING DEFINITIONS SHALL APPLY TO THESE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS: 1. ACCEPTABLE DRAINAGE: DRAINAGE RATE IS SUFFICIENT FOR THE PLANTS TO BE GROWN. TYPICAL RATES FOR INSTALLED PLANTING SOIL ARE BETWEEN ONE TO FIVE INCHES (1"-5") PER HOUR. IN NATURAL UNDISTURBED SOIL A MUCH LOWER DRAINAGE RATE, AS LOW AS ONE-EIGHTH INCH (1/8") PER HOUR CAN STILL SUPPORT GOOD PLANT GROWTH. WETLAND PLANTS CAN GROW ON TOP OF PERCHED WATER LAYERS OR EVEN WITHIN SEASONAL PERCHED WATER LAYERS BUT BECOME UNSTABLE IN HIGH WIND EVENTS.

2. AMENDMENT: MATERIAL INCORPORATED INTO THE SOIL TO MODIFY PROPERTIES OR FUNCTIONS, SUCH AS DRAINAGE, AGGREGATION AND SOIL STRUCTURE, WATER AND NUTRIENT RETENTION, POROSITY, INFILTRATION, DRAINAGE, AND ROOTING DEPTH. AMENDMENTS ARE CLASSIFIED AS ORGANIC OR INORGANIC.

3. AMENDMENT, INORGANIC: AMENDMENTS SUCH AS PERLITE, VERMICULITE, OR VOLCANIC GLASS USED FOR THEIR PHYSICAL AND CHEMICAL PROPERTIES: NOT BIOLOGICALLY ACTIVE. 4. AMENDMENT, NON-ORGANIC: BIOLOGICALLY ACTIVE AMENDMENTS SUCH AS MYCORRHIZAL ADDITIVES, COMPOST TEA, OR OTHER PRODUCTS.

5. CARBON DIOXIDE EVOLUTION RATE: A MEASUREMENT OF THE BIODEGRADATION RATE OF THE ORGANIC MATTER IN COMPOST BY MEASURING RESPIRATION RATE AT WHICH THE COMPOST SAMPLE IS RELEASING CARBON DIOXIDE (CO2) UNDER OPTIMIZED MOISTURE AND TEMPERATURE

6. COMPACTED SOIL: SOIL WHERE THE DENSITY OF THE SOIL IS GREATER THAT THE THRESHOLD FOR ROOT LIMITING.

7. COMPOST: WELL DECOMPOSED STABLE ORGANIC MATERIAL OF BLENDED AND GROUND LEAF, WOOD, AND OTHER PLANT BASED MATERIAL, COMPOSTED FOR A MINIMUM OF NINE (9) MONTHS AND AT TEMPERATURES SUFFICIENT TO BREAK DOWN ALL WOODY FIBERS, SEEDS AND LEAF STRUCTURES, FREE OF TOXIC MATERIAL AT LEVELS THAT ARE HARMFUL TO PLANTS OR HUMANS. SOURCE MATERIAL SHALL BE YARD WASTE TRIMMINGS BLENDED WITH OTHER PLANT OR MANURE (<1%). BASED MATERIAL DESIGNED TO PRODUCE COMPOST HIGH IN FUNGAL MATERIAL. 8. COMPOST MATURITY: A PROCEDURE MEASURING A RATIO BETWEEN CARBON DIOXIDE (CO2)

AND NITROGEN (N) PRODUCED BY DECOMPOSING ORGANIC MATERIAL. A C:N RATIO IS AN INDICATOR OF COMPOST STABILITY AND NITROGEN AVAILABILITY. 9. DRAINAGE: THE RATE AT WHICH SOIL WATER MOVES THROUGH THE SOIL TRANSITIONING THE

SOIL FROM SATURATED CONDITION TO FIELD CAPACITY. MOST OFTEN EXPRESSED AS SATURATED HYDRAULIC CONDUCTIVITY (KSAT; UNITS ARE INCHES PER HOUR). 10. EXISTING SOIL: SURFACE SOIL IN THE AREAS DESIGNATED ON THE SOILS PLAN AS EXISTING

SOIL, THAT IS NOT ALTERED, COMPACTED TO ROOT LIMITING DENSITY, GRADED OR CONTAMINATED BEFORE OR DURING THE CONSTRUCTION PROCESS AND CONSIDERED ACCEPTABLE FOR PLANTING AND LONG TERM HEALTH OF THE PLANTS SPECIFIED EITHER AS IT EXISTS OR WITH ONLY MINOR MODIFICATION.

11. FERTILIZER: INORGANIC AMENDMENT USED FOR THE PURPOSE OF ADJUSTING SOIL NUTRIENT COMPOSITION AND PH BALANCE.

12. FINE GRADING: THE FINAL GRADING OF THE SOIL TO ACHIEVE EXACT CONTOURS AND POSITIVE DRAINAGE, OFTEN ACCOMPLISHED BY HAND RAKES OR DRAG RAKES OTHER SUITABLE

13. FINISHED GRADE: SURFACE OR ELEVATION OF PLANTING SOIL AFTER FINAL GRADING AND TWELVE (12) MONTHS OF SETTLEMENT OF THE SOIL.

14. GRADED SOIL: SOIL WHERE THE A HORIZON HAS BEEN STRIPPED AND RELOCATED OR RE-SPREAD: CUTS AND FILLS DEEPER THAN TWELVE INCHES (12"). AND.

15. IMPORTED TOPSOIL: FERTILE, FRIABLE SOIL CONTAINING LESS THAN FIVE PERCENT (5%) TOTAL VOLUME OF THE COMBINATION OF SUBSOIL, REFUSE, ROOTS LARGER THAN ONE INCH (1") DIAMETER, HEAVY, STICKY OR STIFF CLAY, STONES LARGER THAN TWO INCHES (2") IN DIAMETER, NOXIOUS SEEDS, STICKS, BRUSH, LITTER, OR ANY SUBSTANCES DELETERIOUS TO PLANT GROWTH. THE PERCENT (%) OF THE ABOVE OBJECTS SHALL BE CONTROLLED BY SOURCE SELECTION AND NOT

BY SCREENING THE SOIL. 16. INSTALLED SOIL: PLANTING SOIL AND EXISTING SITE SOIL THAT IS SPREAD AND OR GRADED

17. MINOR DISTURBANCE: MINOR GRADING AS PART OF AGRICULTURAL WORK THAT ONLY ADJUSTS THE A HORIZON SOIL, MINOR SURFACE COMPACTION IN THE TOP SIX INCHES (6") OF THE SOIL, APPLICATIONS OF FERTILIZERS, INSTALLATION OF UTILITY PIPES SMALLER THAN EIGHTEEN INCHES (18") IN DIAMETER THRU THE SOIL ZONE.

18. MIXED SOIL: MIXES OF EXISTING SOIL OR IMPORTED TOPSOIL, COARSE SAND, AND/OR COMPOST TO MAKE A NEW SOIL THAT MEETS THE PROJECT GOALS FOR THE INDICATED PLANTING AREA. THESE MIXED SOILS MAY BE MIXED OFF SITE OR ONSITE AND WILL VARY IN MIX COMPONENTS AND PROPORTIONS AS INDICATED.

19. PED: A CLUMP OR CLOD OF SOIL HELD TOGETHER BY A COMBINATION OF CLAY, ORGANIC MATTER, AND FUNGAL HYPHAE, RETAINING THE ORIGINAL STRUCTURE OF THE HARVESTED SOIL 20. PLANTING SOIL: TOPSOIL, OR PLANTING SOIL MIXES WHICH ARE IMPORTED OR EXISTING AT THE SITE, OR MADE FROM COMPONENTS THAT EXIST AT THE SITE, OR ARE IMPORTED TO THE SITE. 21. POOR DRAINAGE: SOIL DRAINAGE THAT IS SLOWER THAN THAT TO WHICH THE PLANTS CAN ADAPT. GENERALLY, IF THE SOIL IS TURNING GREY IN COLOR, IT IS REASONABLE PREFERABLE TO EITHER TO PLANT MOISTURE ADAPTIVE PLANTS AT SMALLER SIZES THAT ARE YOUNG IN AGE WITH SHALLOW ROOT BALLS OR LOOK AT OPTIONS TO IMPROVE THE DRAINAGE

22. SCARIFY: LOOSENING AND ROUGHENING THE SURFACE OF SOIL AND SUB SOIL PRIOR TO ADDING ADDITIONAL SOIL ON TOP, AND FURTHER DEFINED IN THIS SPECIFICATION. 23. SOIL FRACTURING: DEEP LOOSENING THE SOIL TO THE DEPTHS SPECIFIED BY USING A

24. SOIL HORIZONS: LAYERS OF SOIL VISIBLY SHARING PROPERTIES SUCH AS COLOR, TEXTURE STRUCTURE, AND THICKNESS, AND SHARING TESTABLE PROPERTIES SUCH AS CHEMICAL AND

MINERAL CONTENT, CONSISTENCE, AND REACTION. 25. SOIL HORIZON, 'O': LAYER OF PREDOMINATELY ORGANIC SOIL DERIVING FROM DEAD PLANT AND ANIMAL RESIDUE COMMON IN FORESTS AND GENERALLY ABSENT IN GRASSLANDS.

26. SOIL HORIZON, 'A': TOPMOST LAYER OF PREDOMINATELY MINERAL SOILS CONTAINING ENOUGH DECOMPOSED ORGANIC MATTER TO GIVE THE SOIL A DARKER COLOR THAN LOWER SOIL HORIZONS. GENERALLY REFERRED TO AS 'TOPSOIL' AND CONTAINS THE MAJORITY OF PLANT FEEDER ROOTS.

27. SOIL SALT: COMPOST SOLUBLE SALT MEASURES THE SALT CONTENT IN SOIL AND COMPOST MEASURED BY AN ELECTRICAL CONNECTIVITY TEST WITH RESULTING UNITS OF MILLIMHOS PER CENTIMETER (MMHO/CM). COMPOST SOLUBLE SALT LEVELS TYPICALLY RANGE FROM 1 TO 10 MMHOS/CM. HIGH SALINITY MAY BE TOXIC TO PLANTS. IDEAL SOLUBLE SALT LEVELS WILL

DEPEND ON THE END USE OF THE COMPOST. 28. SOIL RIPPING: LOOSENING THE SOIL BY DRAGGING A RIPPING SHANK OR CHISEL THRU THE SOIL TO THE DEPTHS AND SPACING SPECIFIED.

29. SOIL TILLING: LOOSENING THE SURFACE OF THE SOIL TO THE DEPTHS SPECIFIED WITH A ROTARY TINE TILLING MACHINE, ROTO TILLER, (OR SPADE TILLER). 30. SOIL TRENCHING: CUTTING NARROW TRENCHES THRU THE SOIL AT THE DEPTHS AND

SPACING SPECIFIED TO LOOSEN THE SOIL PROFILE. 31. SUBGRADE: SURFACE OR ELEVATION OF SUBSOIL REMAINING AFTER COMPLETING

 $\mid$  EXCAVATION, OR TOP SURFACE OF A FILL OR BACKFILL, BEFORE PLACING PLANTING SOIL.

REVISIONS

NO. DATE

32. TOPSOIL: SEE SOIL HORIZON, 'A'. 33. UNDISTURBED SOIL: SOILS WITH THE ORIGINAL 'A' HORIZON INTACT THAT HAVE NOT BEEN GRADED OR COMPACTED. SOILS MAY HAVE BEEN FARMED, SUBJECTED TO FIRE, OR LOGGED, BUT NOT GRADED.

## **B. BASIS OF DESIGN SOIL AMENDMENT PRODUCTS**

a. IMPORTED TOPSOIL SHALL BE SUITABLE FOR THE GERMINATION OF SEEDS AND THE SUPPORT OF VEGETATIVE GROWTH. IMPORTED TOPSOIL SHALL NOT CONTAIN WEED SEEDS IN QUANTITIES THAT CAUSE NOTICEABLE WEED INFESTATIONS IN THE FINAL PLANTING BEDS.

b. IMPORTED TOPSOIL SHALL BE A HARVESTED SOIL FROM FIELDS OR DEVELOPMENT SITES. THE ORGANIC CONTENT AND PARTICLE SIZE DISTRIBUTION SHALL BE THE RESULT OF NATURAL SOIL FORMATION. MANUFACTURED SOILS WHERE COARSE SAND, COMPOSTED ORGANIC MATERIAL OR CHEMICAL ADDITIVES HAS BEEN ADDED TO THE SOIL TO MEET THE REQUIREMENTS OF THESE NOTES SHALL NOT BE ACCEPTABLE. RETAINED SOIL PEDS SHALL BE THE SAME COLOR ON THE INSIDE AS IS VISIBLE ON THE OUTSIDE.

c. IMPORTED TOPSOIL FOR PLANTING SOIL SHALL NOT HAVE BEEN SCREENED AND SHALL RETAIN SOIL PEDS OR CLODS LARGER THAN TWO INCHES (2") IN DIAMETER THROUGHOUT THE STOCKPILE AFTER HARVESTING.

2. COMPOST: a. COMPOST SHALL BE COMMERCIALLY PREPARED BY AN STA-CERTIFIED PRODUCER WHICH WILL PROVIDE A CURRENT TEST RESULT OF THEIR PRODUCT.

b. A LIST OF STA-CERTIFIED COMPOST PRODUCERS CAN BE FOUND ONLINE AT

<a href="https://www.compostingcouncil.org/page/participants">https://www.compostingcouncil.org/page/participants</a>. 1) THE BASIS OF DESIGN PRODUCER IS INDIANHEAD BIOMASS, 2020 COUNTY ROAD 214, SAINT AUGUSTINE, FLORIDA, 32084-9210.

2) THE POINT OF CONTACT IS JOE WILLIAMS AT (904) 806-0187. c. COMPOST SHALL COMPLY WITH THE FOLLOWING PARAMETERS:

1) PH VALUE: 5.5 TO 8.0 2) SOIL SALT (ELECTRICAL CONDUCTIVITY): MAX FIVE (5) DS/M (MMHOS/CM) 3) MOISTURE CONTENT PERCENT (WET WEIGHT BASIS): THIRTY-SIXTY (30-60)

5) STABILITY CARBON DIOXIDE EVOLUTION RATE: LESS THAN TWO (<2) MG CO2-C/G

6) MATURITY TEST: GREATER THAN SIX (>6)

THREE-QUARTER INCH (3/4") SCREEN OR SMEAR TEST.

7) PHYSICAL CONTAMINANTS (INERTS), %, DRY WEIGHT BASIS: LESS THAN ONE PERCENT

4) PARTICLE SIZE (DRY WEIGHT BASIS): NINETY-EIGHT PERCENT (98%) PASS THROUGH

8) CHEMICAL CONTAMINANTS PER U.S. ENVIRONMENTAL PROTECTION AGENCY CLASS A STANDARD, 40 CFR §503.13, TABLES 1 AND 3 LEVELS.

9) BIOLOGICAL CONTAMINANTS (SELECT PATHOGENS FECAL COLIFORM BACTERIA, OR SALMONELLA) PER U.S. EPA CLASS A STANDARD, 40 CFR § 503.32(A) LEVEL REQUIREMENTS.

 $\square$  d. SUBMIT A ONE-HALF (1/2) GALLON SAMPLE FROM ALL COMPOST SOURCES WITH MANUFACTURER'S LITERATURE AND MATERIAL CERTIFICATION THAT THE PRODUCT MEETS THE REQUIREMENTS TO THE LANDSCAPE ARCHITECT. 3. COARSE SAND

 a. COARSE SANDS SHALL BE CLEAN, SHARP, NATURAL COARSE SANDS FREE OF LIMESTONE, SHALE AND SLATE PARTICLES. MANUFACTURED COARSE SAND SHALL NOT BE PERMITTED. 1) PH VALUE SHALL BE LOWER THAN 7.0.

b. PROVIDE COARSE SAND WITH THE FOLLOWING PARTICLE SIZE DISTRIBUTION:

PERCENT PASSING
100%
95-100%
80-100%
50-85%
25-60%
10-30%
2-10%
2-5%

 $\Box$  c. SUBMIT A ONE-HALF (1/2) GALLON SAMPLE FROM ALL COARSE SAND SOURCES WITH MANUFACTURER'S LITERATURE AND MATERIAL CERTIFICATION THAT THE PRODUCT MEETS THE REQUIREMENTS TO THE LANDSCAPE ARCHITECT.

a. AGRICULTURAL LIMESTONE CONTAINING A MINIMUM EIGHTY PERCENT (80%) CALCIUM CARBONATE EQUIVALENT AND AS FOLLOWS:

b. CLASS T WITH A MINIMUM NINETY-NINE PERCENT (99%) PASSING THROUGH NO. 8 (2.36-MM) SIEVE AND A MINIMUM SEVENTY-FIVE PERCENT (75%) PASSING THROUGH NO. 60 (0.25-MM) SIEVE.

c. PROVIDE LIME IN FORM OF DOLOMITIC LIMESTONE.

☐ d. SUBMIT MANUFACTURER'S LITERATURE AND MATERIAL CERTIFICATION THAT THE PRODUCT MEETS THE REQUIREMENTS TO THE LANDSCAPE ARCHITECT.

5. EXISTING SOIL a. PROTECT EXISTING SOIL FROM COMPACTION, CONTAMINATION, AND DEGRADATION DURING THE CONSTRUCTION PROCESS.

b. UNLESS OTHERWISE INSTRUCTED, REMOVE ALL EXISTING PLANTS, ROOT THATCH, AND NON-SOIL DEBRIS FROM THE SURFACE OF THE SOIL USING EQUIPMENT THAT DOES NOT INCREASE COMPACTION OF SOIL TO ROOT LIMITING LEVELS.

c. USE EXISTING SOIL SUITABLE FOR THE GERMINATION OF SEEDS AND THE SUPPORT OF VEGETATIVE GROWTH. EXISTING SOIL SHALL NOT CONTAIN WEED SEEDS IN QUANTITIES THAT CAUSE NOTICEABLE WEED INFESTATIONS IN THE FINAL PLANTING BEDS.

d. THE CONTRACTOR SHALL PAY FOR THE COLLECTION, SHIPPING, AND SUBMISSION OF THE EXISTING SOIL FOR TESTING BASED ON LOCATIONS IDENTIFIED IN THE LANDSCAPE ARCHITECTURAL DRAWINGS.

1) THE BASIS OF DESIGN FOR SOIL TESTING IS PROVIDED THROUGH THE UNIVERSITY OF FLORIDA/INSTITUTE FOR FOOD AND AGRICULTURAL STUDIES (UF/IFAS) AGRICULTURAL EXTENSION SOIL TESTING LABORATORY, OR OTHER RECOGNIZED LABORATORY. A MAP OF TESTING LABORATORIES IS ONLINE AT: <a href="https://sfyl.ifas.ufl.edu/find-your-local-office/">https://sfyl.ifas.ufl.edu/find-your-local-office/</a>.

2) THE BASIS OF DESIGN SOIL TEST IS THE UF/IFAS LANDSCAPE AND VEGETABLE GARDEN TEST FORM AVAILABLE ONLINE AT <a href="https://edis.ifas.ufl.edu/pdffiles/SS/SS18700.pdf">https://edis.ifas.ufl.edu/pdffiles/SS/SS18700.pdf</a>.

a) SELECT TEST "B". e. EXISTING SOIL SHALL BE TESTED BEFORE THE INSTALLATION OF THE IRRIGATION SYSTEM AND WITH ENOUGH TIME TO RECEIVE RESULTS TO AMEND SOILS AND INSTALL THE LANDSCAPING

f. THE TEST SHALL PROVIDE RESULTS FOR THE FOLLOWING:

1) SOIL PH 2) LIME REQUIREMENT

6. MIXED SOILS FOR PLANTING

3) MINERAL CONTENT (P, K, CA, MG, S, CU, MN, and ZN) g. IF THE CONTRACTOR STOCKPILES THE EXISTING TOPSOIL, THEN SUBMIT SAMPLES FOR TESTING AFTER DISTRIBUTING IT AROUND THE PROJECT SITE TO CONFIRM IT MEETS THE ABOVE CRITERIA AND IS ACCEPTABLE FOR USE.

☐ 1) THE CONTRACTOR SHALL SUBMIT A WRITTEN PLAN TO THE LANDSCAPE ARCHITECT FOR DISTRIBUTING AND TESTING THE STOCKPILED EXISTING SOIL.

☐ h. SUBMIT COPIES OF ALL SOIL TEST REPORT(S) OF EXISTING SOILS LISTED ABOVE TO THE LANDSCAPE ARCHITECT.

a. MIXED SOILS FOR TREES AND SHRUB BEDS SHALL BE DESIGNED FOR MODERATELY SLOW

1) MIXED SOILS SHALL COMPRISE A COMBINATION OF IMPORTED TOPSOIL, COARSE SAND, AND COMPOST. THE APPROXIMATE MIX SHALL BE:

MIX COMPONENT	PERCENT BY MOIST VOLUME
PORTED TOP SOIL UNSCREENED	45-50%
ARSE SAND	40-45%
MPOST	10%

b. MIX THE COARSE SAND AND COMPOST TOGETHER FIRST AND THEN ADD TO THE TOPSOIL. MIX WITH A LOADER BUCKET TO LOOSELY INCORPORATE THE TOPSOIL INTO THE COARSE SAND/COMPOST MIX. DO NOT OVER MIX BY USING A SOIL BLENDING MACHINE. DO NOT SCREEN THE SOIL. CLUMPS OF SOIL, COMPOST, AND COARSE SAND WILL BE PERMITTED IN THE OVERALL

7. CHEMICAL ADJUSTMENT

CHEMICAL ADJUSTMENTS HAVE BEEN APPLIED.

a. ADD ANY REQUIRED FERTILIZER AT RATES RECOMMENDED BY THE SOIL TEST RESULTS.

☐ 1) THE CONTRACTOR SHALL SUBMIT A WRITTEN DESCRIBING QUANTITIES AND APPLICATION METHODS FOR ADDING FERTILIZERS TO THE LANDSCAPE ARCHITECT FOR APPROVAL. 2) AT FINAL GRADING, TILL SURFACE SOIL DOWN TO SIX INCHES (6") OR GREATER AFTER

8. TUBULAR SOIL SAMPLER a. FOR SOIL TESTS, USE A TUBULAR SOIL SAMPLER (SOIL PROBE) PROVIDING FOR A SAMPLE MINIMUM OF SIX INCHES (6") IN DEPTH AND ONE-HALF INCH (1/2") IN DIAMETER.

b. MODEL 013T, ITEM #76971, BY FORESTRY SUPPLIERS <a href="https://www.forestry-suppliers.com/p/76971/43231/tubular-soil-sampler">https://www.forestry-suppliers.com/p/76971/43231/tubular-soil-sampler</a>, OR APPROVED

9. SOIL COMPACTION TESTER a. FOR ASSESSING SOIL COMPACTION, USE A SPONTON® DIGITAL SOIL COMPACTION METER. b. MODEL 29360, AVAILABLE THROUGH FORESTRY SUPPLIERS

<a href="https://gemplers.com/products/spoton-digital-soil-compaction-meter">https://gemplers.com/products/spoton-digital-soil-compaction-meter</a>, OR APPROVED EQUIVALENT. □ c. SUBMIT MANUFACTURER'S PRODUCT DATA THAT PRODUCT MEETS THE

REQUIREMENTS TO THE LANDSCAPE ARCHITECT FOR APPROVAL 10. DELIVERY, STORAGE, AND HANDLING OF SOIL AMENDMENT PRODUCTS a. DO NOT MIX, DELIVER, PLACE OR GRADE SOILS WHEN FROZEN OR WITH MOISTURE ABOVE

FIELD CAPACITY (I.E. DURING RAIN EVENTS). b. PROTECT SOIL AND SOIL STOCKPILES, INCLUDING THE STOCKPILES AT THE SOIL BLENDER'S YARD, FROM WIND, RAIN AND WASHING THAT CAN ERODE SOIL OR SEPARATE FINES AND COARSE MATERIAL, AND CONTAMINATION BY CHEMICALS, DUST AND DEBRIS THAT MAY BE DETRIMENTAL TO PLANTS OR SOIL DRAINAGE. COVER STOCKPILES WITH PLASTIC SHEETING OR FABRIC AT THE

END OF EACH WORKDAY. c. ALL MANUFACTURED PACKAGED PRODUCTS AND MATERIAL SHALL BE DELIVERED TO THE SITE IN UNOPENED CONTAINERS AND STORED IN A DRY ENCLOSED SPACE SUITABLE FOR THE MATERIAL AND MEETING ALL ENVIRONMENTAL REGULATIONS. BIOLOGICAL ADDITIVES SHALL BE PROTECTED FROM EXTREME COLD AND HEAT. ALL PRODUCTS SHALL BE FRESHLY MANUFACTURED AND DATED FOR THE YEAR IN WHICH THE PRODUCTS ARE TO BE USED.

d. DELIVER ALL CHEMICAL AMENDMENTS IN ORIGINAL, UNOPENED CONTAINERS WITH ORIGINAL LABELS INTACT AND LEGIBLE, WHICH STATE THE GUARANTEED CHEMICAL ANALYSIS. STORE ALL CHEMICALS IN A WEATHER PROTECTED ENCLOSURE.

### PART II. AMENDING SOIL

1. EXCAVATE TO THE PROPOSED SUBGRADE. MAINTAIN ALL REQUIRED ANGLES OF REPOSE OF THE ADJACENT MATERIALS AS SHOWN ON THE DRAWINGS OR AS REQUIRED BY THIS SPECIFICATION. DO NOT OVER EXCAVATE COMPACTED SUBGRADES OF ADJACENT PAVEMENT OR STRUCTURES. MAINTAIN A SUPPORTING ONE-TO-ONE (1:1) RATIO SIDE SLOPE OF COMPACTED SUBGRADE MATERIAL ALONG THE EDGES OF ALL PAVING AND STRUCTURES WHERE THE BOTTOM OF THE PAVING OR STRUCTURE IS ABOVE THE BOTTOM ELEVATION OF THE EXCAVATED PLANTING

2. REMOVE ALL CONSTRUCTION DEBRIS AND MATERIAL INCLUDING ANY CONSTRUCTION MATERIALS FROM THE SUBGRADE.

3. CONFIRM THAT THE SUBGRADE IS AT THE PROPER ELEVATION AND COMPACTED AS REQUIRED. SUBGRADE ELEVATIONS SHALL SLOPE APPROXIMATELY PARALLEL TO THE FINISHED GRADE AND/OR TOWARD THE SUBSURFACE DRAIN LINES AS SHOWN ON THE DRAWINGS.

4. IN AREAS WHERE PLANTING SOIL IS TO BE SPREAD, CONFIRM SUBGRADE HAS BEEN SCARIFIED. 5. PROTECT ADJACENT WALLS, WALKS AND UTILITIES FROM DAMAGE OR STAINING BY THE SOIL. USE ONE-HALF INCH (1/2") PLYWOOD AND OR PLASTIC SHEETING TO COVER EXISTING CONCRETE. METAL AND MASONRY WORK, AND OTHER INSTALLED ITEMS. a. AT THE END OF EACH WORKING DAY, CLEAN OFF ANY SOIL SPILLED ON ANY PAVED SURFACE.

## **B. PLANTING SOIL**

1. THE CONTRACTOR SHALL PROVIDE THE FOLLOWING FOR FURNISHING, DELIVERY, AND INSTALLATION OF PLANTING SOIL AND/OR THE MODIFICATION OF EXISTING SITE SOIL FOR USE AS PLANTING SOIL.

a. LOCATE, PURCHASE, DELIVER AND INSTALL IMPORTED PLANTING SOIL AND SOIL

AMENDMENTS.

b. HARVEST AND STOCKPILE EXISTING SITE SOILS SUITABLE FOR PLANTING SOIL. c. MODIFY EXISTING STOCKPILED SITE SOIL. 1) MODIFY EXISTING SITE SOIL IN PLACE FOR USE AS PLANTING SOIL.

2) INSTALL EXISTING OR MODIFIED EXISTING SOIL FOR USE AS PLANTING SOIL. d. LOCATE, PURCHASE, DELIVER AND INSTALL SUBSURFACE DRAIN LINES.

e. FINE GRADE PLANTING SOIL. f. INSTALL COMPOST INTO PLANTING SOIL.

2. IMPORTED PLANTING TOP SOILS AND HARVESTED EXISTING SITE SOILS SHALL BE TESTED PRIOR TO DELIVERY BY THE UNIVERSITY OF FLORIDA/INSTITUTE FOR FOOD AND AGRICULTURAL STUDIES (UF/IFAS) ANALYTICAL SERVICES LABORATORIES, ATTN: EXTENSION SOIL TESTING LABORATORY, 2390 MOWRY ROAD/PO BOX 110740/WALLACE

BUILDING 631, GAINESVILLE, FLORIDA 32611-0740. a. IMPORTED PLANTING TOP SOILS SHALL BE TESTED AT THEIR SOURCE PRIOR TO DELIVERY AND APPLICATION

b. STOCKPILED EXISTING SITE SOIL SHALL BE TESTED PRIOR TO APPLICATION 3. PROVIDE A MINIMUM OF 1-1/2 CUP SAMPLE FROM A HOLE DUG SIX INCHES (6") INTO THE GRADE, OR USE A SOIL PROBE TO TAKE A MINIMUM SIX-INCH-DEEP (6") AND ONE-HALF INCH (1/2") DIAMETER SAMPLE.

a. PLACE THE SAMPE IN A ZIP-LOCK BAG AND ALLOW IT TO DRY BEFORE SEALING AND SHIPPING TO UF/IFAS.

b. COMPLETE THE LANDSCAPE AND VEGETABLE GARDEN TEST FORM AVAILABLE ONLINE AT <a href="https://edis.ifas.ufl.edu/pdffiles/SS/SS18700.pdf">https://edis.ifas.ufl.edu/pdffiles/SS/SS18700.pdf</a>.

1) SELECT TEST "B". 2) THE TEST SHALL PROVIDE RESULTS FOR THE FOLLOWING:

a) SOIL PH b) LIME REQUIREMENT

c) MINERAL CONTENT (P, K, CA, MG, S, CU, MN, and ZN)  $\ \square$  c. PROVIDE COPIES OF THE TEST RESULTS FOR IMPORTED PLANTING TOP SOILS AND HARVESTED EXISTING SITE SOILS TO THE LANDSCAPE ARCHITECT.

1. PRIOR TO, DURING, AND AFTER PLANTING, THE CONTRACTOR SHALL MAINTAIN VOLUMETRIC SOIL MOISTURE LEVEL, IN BOTH THE PLANTING SOIL AND THE ROOT BALLS OF ALL PLANTS, AT ABOVE PERMANENT WILT POINT AND BELOW FIELD CAPACITY FOR EACH TYPE OF SOIL TEXTURE: WITHIN THE FOLLOWING RANGES.

SOIL TYPE	PERMANENT WILT POINT	FIELD CAPACITY
SAND, LOAMY SAND, SANDY LOAM	5-8%	12-18%
LOAM, SANDY CLAY, SANDY CLAY LOAM	14-25%	27-36%
CLAY LOAM, SILT LOAM	11-22%	31-36%
SILTY CLAY, SILTY CLAY LOAM	22-27%	38-41%

a. IF THE MOISTURE IS FOUND TO BE TOO LOW, THE PLANTING HOLES SHALL BE FILLED WITH WATER AND ALLOWED TO DRAIN BEFORE STARTING ANY PLANTING OPERATIONS. IF THE MOISTURE IS TOO HIGH, SUSPEND PLANTING OPERATIONS UNTIL THE SOIL MOISTURE DRAINS TO BELOW FIELD CAPACITY.

### D. PLANTING SOIL AND PLANTING SOIL MIX INSTALLATION

(5) BUSINESS DAYS PRIOR TO INSTALLING ANY SOILS FOR PLANTING. a. PRIOR TO INSTALLING ANY PLANTING SOIL FROM STOCKPILES OR PLANTING SOIL MIXES BLENDED OFF SITE, THE LANDSCAPE ARCHITECT SHALL APPROVE THE CONDITION

OF THE SUBGRADE AND THE PREVIOUSLY INSTALLED SUBGRADE PREPARATION. 2. ALL EQUIPMENT UTILIZED TO INSTALL OR GRADE PLANTING SOILS SHALL BE WIDE TRACK OR BALLOON TIRE MACHINES RATED WITH A GROUND PRESSURE OF FOUR (4) PSI OR LESS. ALL GRADING AND SOIL DELIVERY EQUIPMENT SHALL HAVE BUCKETS EQUIPPED WITH SIX INCH (6") LONG TEETH TO SCARIFY ANY SOIL THAT BECOMES COMPACTED. 3. IN AREAS OF SOIL INSTALLATION ABOVE EXISTING SUBSOIL, SCARIFY THE SUBGRADE

MATERIAL PRIOR TO INSTALLING PLANTING SOIL. a. SCARIFY THE SUBSOIL OF THE SUBGRADE TO A DEPTH OF THREE TO SIX INCHES (3" TO 6") WITH THE TEETH OF THE BACKHOE OR LOADER BUCKET, TILLER, OR OTHER SUITABLE DEVICE.

b. IMMEDIATELY INSTALL THE PLANTING SOIL. PROTECT THE LOOSENED AREA FROM TRAFFIC. DO NOT ALLOW THE LOOSENED SUBGRADE TO BECOME COMPACTED.

c. IN THE EVENT THAT THE LOOSENED AREA BECOMES OVERLY COMPACTED, LOOSEN

THE AREA AGAIN PRIOR TO INSTALLING THE PLANTING SOIL 4. INSTALL THE PLANTING SOIL IN TWELVE TO EIGHTEEN INCH (12" TO 18") LIFTS TO THE REQUIRED DEPTHS. APPLY COMPACTING FORCES TO EACH LIFT AS REQUIRED TO ATTAIN THE REQUIRED COMPACTION. SCARIFY THE TOP OF EACH LIFT PRIOR TO ADDING MORE PLANTING SOIL BY DRAGGING THE TEETH OF A LOADER BUCKET OR BACKHOE ACROSS THE SOIL SURFACE TO ROUGHEN THE SURFACE.

5. PHASE WORK SUCH THAT EQUIPMENT TO DELIVER OR GRADE SOIL DOES NOT HAVE TO OPERATE OVER PREVIOUSLY INSTALLED PLANTING SOIL. WORK IN ROWS OF LIFTS THE WIDTH OF THE EXTENSION OF THE BUCKET ON THE LOADER. INSTALL ALL LIFTS IN ONE ROW BEFORE PROCEEDING TO THE NEXT. WORK OUT FROM THE FURTHEST PART OF EACH BED FROM THE SOIL DELIVERY POINT TO THE EDGE OF THE EACH BED AREA. 6. WHERE POSSIBLE PLACE LARGE TREES FIRST AND FILL PLANTING SOIL AROUND THE

7. INSTALLING SOIL WITH SOIL OR MULCH BLOWERS OR SOIL SLINGERS SHALL NOT BE PERMITTED DUE TO THE OVER MIXING AND SOIL PED BREAKDOWN CAUSE BY THIS TYPE OF EQUIPMENT.

8. WHERE TRAVEL OVER INSTALLED SOIL IS UNAVOIDABLE, LIMIT PATHS OF TRAFFIC TO REDUCE THE IMPACT OF COMPACTION IN PLANTING SOIL. EACH TIME EQUIPMENT PASSES OVER THE INSTALLED SOIL IT SHALL REVERSE OUT OF THE AREA ALONG THE SAME PATH WITH THE TEETH OF THE BUCKET DROPPED TO SCARIFY THE SOIL

9. THE DEPTHS AND GRADES SHOWN ON THE DRAWINGS ARE THE FINAL GRADES AFTER SETTLEMENT AND SHRINKAGE OF THE COMPOST MATERIAL. THE CONTRACTOR SHALL INSTALL THE PLANTING SOIL AT A HIGHER LEVEL TO ANTICIPATE THIS REDUCTION OF PLANTING SOIL VOLUME. A MINIMUM SETTLEMENT OF APPROXIMATELY TEN TO FIFTEEN PERCENT (10% TO 15%) OF THE SOIL DEPTH IS EXPECTED. ALL GRADE INCREASES ARE ASSUMED TO BE AS MEASURED PRIOR TO THE ADDITION OF SURFACE COMPOST TILL LAYER, MULCH, OR SOD.

## E. COMPACTION REQUIREMENTS FOR INSTALLED OR MODIFIED PLANTING SOIL

 EXISTING SOIL THAT IS MODIFIED BY TILLING, RIPPING, OR FRACTURING SHALL HAVE A DENSITY TO THE DEPTH OF THE MODIFICATION, AFTER COMPLETION OF THE LOOSENING. SUCH THAT A PENETROMETER READS APPROXIMATELY SEVENTY-FIVE TO TWO-HUNDRED AND FIFTY (75 TO 250) PSI AT SOIL MOISTURE APPROXIMATELY THE MID-POINT BETWEEN WILTING POINT AND FIELD CAPACITY. THIS WILL BE APPROXIMATELY BETWEEN SEVENTY-FIVE AND EIGHTY-TWO PERCENT (75% AND 82%) OF MAXIMUM DRY DENSITY

2. INSTALLED PLANTING SOIL MIX AND RE-SPREAD EXISTING SOIL SHALL HAVE A SOIL DENSITY THROUGH THE REQUIRED DEPTH OF THE INSTALLED LAYERS OF SOIL, SUCH THAT THE PENETROMETER READS APPROXIMATELY SEVENTY-FIVE TO TWO-HUNDRED AND FIFTY (75 TO 250) PSI AT SOIL MOISTURE APPROXIMATELY THE MID-POINT BETWEEN WILT POINT AND FIELD CAPACITY. THIS WILL BE APPROXIMATELY BETWEEN SEVENTY-FIVE AND EIGHTY-TWO PERCENT (75% AND 82%) OF MAXIMUM DRY DENSITY STANDARD

3. PLANTING SOIL COMPACTION SHALL BE TESTED AT EACH LIFT USING A PENETROMETER

4. MAINTAIN MOISTURE CONDITIONS WITHIN THE PLANTING SOIL DURING INSTALLATION OR MODIFICATION TO ALLOW FOR SATISFACTORY COMPACTION. SUSPEND OPERATIONS IF THE PLANTING SOIL BECOMES WET. APPLY WATER IF THE SOIL IS OVERLY DRY.

5. PROVIDE ADEQUATE EQUIPMENT TO ACHIEVE CONSISTENT AND UNIFORM COMPACTION OF THE PLANTING SOILS. USE THE SMALLEST EQUIPMENT THAT CAN REASONABLY PERFORM THE TASK OF SPREADING AND COMPACTION. USE THE SAME EQUIPMENT AND METHODS OF COMPACTION USED TO CONSTRUCT THE PLANTING SOIL MOCKUP.

6. DO NOT PASS MOTORIZED EQUIPMENT OVER PREVIOUSLY INSTALLED AND COMPACTED SOIL EXCEPT AS AUTHORIZED BELOW.

a. LIGHT WEIGHT EQUIPMENT SUCH AS TRENCHING MACHINES OR MOTORIZED WHEELBARROWS IS PERMITTED TO PASS OVER FINISHED SOIL WORK. b. IF WORK AFTER THE INSTALLATION AND COMPACTION OF SOIL COMPACTS THE SOIL TO LEVELS GREATER THAN THE ABOVE REQUIREMENTS, FOLLOW THE REQUIREMENTS OF THE OVER

COMPACTION REDUCTION GUIDELINES BELOW. 7. OVER COMPACTION REDUCTION a. ANY SOIL THAT BECOMES COMPACTED TO A DENSITY GREATER THAN THE SPECIFIED DENSITY AND/OR THE DENSITY IN THE APPROVED MOCKUP SHALL BE DUG UP AND REINSTALLED.

THIS REQUIREMENT INCLUDES COMPACTION CAUSED BY OTHER SUB-CONTRACTORS AFTER THE PLANTING SOIL IS INSTALLED AND APPROVED. b. SURFACE ROTO TILLING SHALL NOT BE CONSIDERED ADEQUATE TO REDUCE OVER COMPACTION AT LEVELS SIX INCHES (6") OR GREATER BELOW FINISHED GRADE.

F. INSTALLATION OF CHEMICAL ADDITIVES

1. FOLLOWING THE INSTALLATION OF EACH SOIL, AND PRIOR TO FINE GRADING AND INSTALLATION OF THE COMPOST TILL LAYER, APPLY CHEMICAL ADDITIVES AS RECOMMENDED BY THE SOIL TEST, AND APPROPRIATE TO THE SOIL AND SPECIFIC PLANTS TO BE INSTALLED.

1. THE LANDSCAPE ARCHITECT SHALL APPROVE ALL ROUGH GRADING PRIOR TO THE

INSTALLATION OF COMPOST, FINE GRADING, PLANTING, AND MULCHING. 2. GRADE THE FINISH SURFACE OF ALL PLANTED AREAS TO MEET THE GRADES SHOWN ON THE DRAWINGS, ALLOWING THE FINISHED GRADES TO REMAIN HIGHER THAN THE GRADES ON THE GRADING PLAN TO ANTICIPATE SETTLEMENT OVER THE FIRST YEAR.

3. UTILIZE HAND EQUIPMENT, SMALL GARDEN TRACTORS WITH RAKES, OR SMALL GARDEN TRACTORS WITH BUCKETS WITH TEETH FOR FINE GRADING TO KEEP SURFACE ROUGH WITHOUT FURTHER COMPACTION. DO NOT USE THE FLAT BOTTOM OF A LOADER BUCKET TO FINE GRADE, AS IT WILL CAUSE THE FINISHED GRADE TO BECOME OVERLY SMOOTH AND OR SLIGHTLY

4. PROVIDE FOR POSITIVE DRAINAGE FROM ALL AREAS TOWARD THE EXISTING INLETS, DRAINAGE STRUCTURES AND OR THE EDGES OF PLANTING BEDS. ADJUST GRADES AS DIRECTED TO REFLECT ACTUAL CONSTRUCTED FIELD CONDITIONS OF PAVING, WALL AND INLET ELEVATIONS. NOTIFY THE LANDSCAPE ARCHITECT IN THE EVENT THAT CONDITIONS MAKE IT IMPOSSIBLE TO ACHIEVE

POSITIVE DRAINAGE. 5. PROVIDE SMOOTH, ROUNDED TRANSITIONS BETWEEN SLOPES OF DIFFERENT GRADIENTS AND DIRECTION. MODIFY THE GRADE SO THAT THE FINISH GRADE BEFORE ADDING MULCH AND AFTER SETTLEMENT IS ONE OR TWO INCHES (1" OR 2") BELOW ALL PAVING SURFACES OR AS DIRECTED BY THE DRAWINGS.

6. FILL ALL DIPS AND REMOVE ANY BUMPS IN THE OVERALL PLANE OF THE SLOPE. THE ☐ 1. THE CONTRACTOR SHALL SUBMIT A SCHEDULE TO THE LANDSCAPE ARCHITECT FIVE TOLERANCE FOR DIPS AND BUMPS IN SHRUB AND GROUND COVER PLANTING AREAS SHALL BE A TWO INCH (2") DEVIATION FROM THE PLANE IN TEN FEET (10'). THE TOLERANCE FOR DIPS AND BUMPS IN LAWN AREAS SHALL BE A ONE INCH (1") DEVIATION FROM THE PLANE IN TEN FEET (10').

### H. INSTALLATION OF COMPOST TILL LAYER

1. AFTER PLANTING SOIL MIXES ARE INSTALLED IN PLANTING BED AREAS AND JUST PRIOR TO THE INSTALLATION OF SHRUB OR GROUNDCOVER PLANTINGS, SPREAD THREE TO FOUR INCHES (3" TO 4") OF COMPOST OVER THE BEDS AND ROTO TILL INTO THE TOP FOUR TO SIX INCHES (4" TO 6") OF THE PLANTING SOIL. THIS STEP WILL RAISE GRADES SLIGHTLY ABOVE THE GRADES REQUIRED IN PARAGRAPH "FINE GRADING." THIS SPECIFICATION ANTICIPATES THAT THE RAISE IN GRADE DUE TO THIS TILLING WILL SETTLE WITHIN A FEW MONTHS AFTER INSTALLATION AS COMPOST BREAKS DOWN.

### I. CLEAN-UP

1. DURING INSTALLATION, KEEP THE AREAS OF SOILS FOR PLANTING FREE OF TRASH AND CONSTRUCTION DEBRIS.

a. IMMEDIATELY CLEAN UP ANY SPILLED OR TRACKED SOIL, FUEL, OIL, TRASH OR DEBRIS DEPOSITED BY THE CONTRACTOR FROM ALL SURFACES WITHIN THE PROJECT OR ON PUBLIC RIGHT OF WAYS AND NEIGHBORING PROPERTY.

2. ONCE INSTALLATION IS COMPLETE, WASH ALL SOIL FROM PAVEMENTS AND OTHER STRUCTURES. ENSURE THAT MULCH IS CONFINED TO PLANTING BEDS AND THAT ALL TAGS AND FLAGGING TAPE ARE REMOVED FROM THE SITE.

a. MAKE ALL REPAIRS TO GRADES, RUTS, AND DAMAGE TO THE WORK OR OTHER WORK AT b. REMOVE AND DISPOSE OF ALL EXCESS PLANTING SOIL, SUBSOIL, MULCH, PLANTS,

PACKAGING, AND OTHER MATERIAL BROUGHT TO THE SITE BY THE CONTRACTOR. ☐ DENOTES GUIDELINES FOR CONTRACTOR SUBMITTAL TO LANDSCAPE ARCHITECT.

> --- END OF SOIL AMENDMENT NOTES ------ LANDSCAPE INSTALLATION NOTES CONTINUE ON SHEET LP-02 ---

**CIVIL ENGINEERING | LAND PLANNING** SURVEYING | CONSTRUCTION SERVICES

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SOIL AND LANDSCAPE MATERIAL NOTES

**MAY 2025** 0802-24-001

MACS PRE-K BUILDING EXPANSION

MICANOPY AREA COOPERATIVE SCHOOL INC MICANOPY, FL

LP-01

## SUPPLEMENTAL LANDSCAPE ARCHITECT NOTES FOR SOIL AMENDMENTS AND LANDSCAPE INSTALLATION (CONTINUED):

### PART III. DEFINITIONS AND BASIS OF DESIGN FOR LANDSCAPE PRODUCTS.

**A. DEFINITIONS:** THE FOLLOWING PROVIDES SPECIFIC NOTES FOR VEGETATIVE (A.K.A. LANDSCAPE) INSTALLATION. THE FOLLOWING DEFINITIONS SHALL APPLY TO THESE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS:

1. BOXED TREES: A CONTAINER ROOT BALL PACKAGE MADE OF WOOD IN THE SHAPE OF A FOUR-SIDED BOX.

2. CALIPER: TRUNK CALIPER (A.K.A. TRUNK DIAMETER) IS MEASURED SIX INCHES (6") FROM THE GROUND ON TREES UP TO AND INCLUDING FOUR INCHES (4") IN CALIPER, AND TWELVE INCHES (12") ABOVE THE GROUND FOR LARGER TREES.

3. CLEAR TRUNK: AS APPLIED TO PALM TREES, A MEASUREMENT FROM THE TOP OF THE ROOT BALL TO THE POINT WHERE THE LOWEST UNTRIMMED LEAF'S PETIOLE DIVERGES FROM THE

4. CONTAINER PLANT: PLANTS THAT ARE GROWN IN AND/OR ARE CURRENTLY IN A CONTAINER

INCLUDING BOXED TREES. 5. DEFECTIVE PLANT: ANY PLANT THAT FAILS TO MEET THE PLANT QUALITY REQUIREMENT OF

THESE LANDSCAPE ARCHITECTURAL NOTES, PLAN AND DETAIL DRAWINGS. 6. DIAMETER AT BREAST HEIGHT (DBH): DIAMETER OF A TREE TRUNK AT BREAST HEIGHT, CONSIDERED FOUR-AND-ONE-HALF FOOT (4½') FROM THE GROUND. USED TO MEASURE EXISTING TREES ON A PROJECT SITE; THIS IS NOT AN APPROPRIATE METHOD FOR MEASURING NURSERY

TREES. 7. DRIP LINE: IMAGINARY LINE DEFINED BY THE BRANCH SPREAD OF A SINGLE OR GROUP OF

PLANTS PROJECTED ONTO THE GROUND; SPECIFICALLY APPLIED TO TREES. 8. FIELD GROWN TREES OF BALLED AND BURLAPPED (B&B): TREES GROWING IN FIELD SOIL FOR AT LEAST TWELVE (12) MONTHS PRIOR TO HARVEST.

9. FLORIDA-FRIENDLY LANDSCAPING (FFL)™: A FLORIDA-WIDE PROGRAM, BASED ON FLORIDA STATUTE 373.185, OF NINE (9) PRINCIPALS PROMOTING SUSTAINABLE ALTERNATIVES TO CONVENTIONAL LANDSCAPING, PROVIDING GUIDANCE ON LOW IMPACT, ENVIRONMENTALLY FRIENDLY, SCIENCE-BASED LANDSCAPE PRACTICES THAT USE LESS WATER AND REDUCE POLLUTANT LOADING TO STATE WATERS.

10. HARDENED OFF FIELD GROWN TREE: ROOTS GROWING THROUGH BURLAP INDICATE TREE HAS OVERCOME STRESS ASSOCIATED WITH DIGGING THE TREE. THIS TREE WILL NOT DIE DUE TO THE STRESS ASSOCIATED WITH DIGGING. IF THIS TREE DIES IN THE LANDSCAPE, IT IS THE

RESPONSIBILITY OF THE PURCHASER OF THE TREE, NOT THE NURSERY. 11. HEALTHY: PLANTS THAT ARE GROWING IN A CONDITION THAT EXPRESSES LEAF SIZE, CROWN DENSITY, COLOR; AND WITH ANNUAL GROWTH RATES TYPICAL OF THE SPECIES AND CULTIVAR'S HORTICULTURAL DESCRIPTION, ADJUSTED FOR THE PLANTING SITE SOIL, DRAINAGE, AND WEATHER CONDITIONS.

12. INVASIVE PLANT: PLANT SPECIES, GENERALLY ALIEN TO THE STATE OF FLORIDA, WHOSE INTRODUCTION OR CONTINUED CULTIVATION DOES, OR IS LIKELY, TO CAUSE ECONOMIC OR ENVIRONMENTAL HARM OR HARM TO HUMAN HEALTH.

13. KINKED ROOT: A ROOT WITHIN THE ROOT PACKAGE THAT BENDS MORE THAN NINETY (90)

14. LANDSCAPE MAINTENANCE: ACTIONS THAT PRESERVE THE HEALTH OF PLANTS AFTER INSTALLATION AND AS DEFINED IN THIS SPECIFICATION.

15. MULCH: CAN BE WOOD CHIPS, BARK, STRAW, PINE NEEDLES, LEAVES, NON-ORGANIC SUBSTANCES, AND SHREDDED RUBBER APPLIED TO THE SOIL SURFACE AROUND PLANTS TO CREATE A FAVORABLE ENVIRONMENT FOR GROWTH BY RETAINING MOISTURE, SUPPRESSING WEEDS, REGULATING TEMPERATURE, AND ENRICHING SOIL.

16. MULCH, PINE STRAW: MULCH MADE FROM THE FRESH, UNDECOMPOSED PINE NEEDLES RAKED FROM A FOREST FLOOR.

17. MULCH, WOOD: MULCH MADE FROM GROUND TREES AND WOODY BRUSHES.

18. NORMAL: THE PREVAILING PROTOCOL OF INDUSTRY STANDARD(S).

19. REASONABLE AND REASONABLY: WHEN USED IN THIS SPECIFICATION RELATIVE TO PLANT QUALITY, IT IS INTENDED TO MEAN THAT THE CONDITIONS CITED WILL NOT AFFECT THE ESTABLISHMENT OR LONG-TERM STABILITY, HEALTH, OR GROWTH OF THE PLANT, THESE NOTES RECOGNIZES THAT NURSERIES CANNOT PRODUCE PLANTS FREE OF ALL DEFECTS, BUT THAT SOME ACCEPTED INDUSTRY PROTOCOLS AND STANDARDS RESULT IN PLANTS UNACCEPTABLE TO THIS

a. WHEN REASONABLE OR REASONABLY IS USED IN RELATION TO OTHER ISSUES SUCH AS WEEDS, DISEASED, INSECTS, IT SHALL MEAN AT LEVELS LOW ENOUGH THAT NO TREATMENT WOULD BE REQUIRED WHEN APPLYING RECOGNIZED INTEGRATED PLANT MANAGEMENT

b. THESE NOTES RECOGNIZE SOME DECISIONS CANNOT BE TOTALLY BASED ON MEASURED FINDINGS AND THAT PROFESSIONAL JUDGMENT IS REQUIRED. IN CASES OF DIFFERING OPINION, THE LANDSCAPE ARCHITECT SHALL DETERMINE WHEN CONDITIONS ARE JUDGED AS REASONABLE. 20. REGENERATED PALMS: PALMS THAT HAVE BEEN COLLECTED/DUG AND MAINTAINED UNTIL NEW WHITE OR CREAMED COLORED ROOT GROWTH IS VISIBLE AROUND A MINIMUM OF SEVENTY-FIVE PERCENT (75%) OF THE PERIMETER OF THE ROOT BALL. THE NEW ROOTS ARE HELD WITHIN A CONTAINMENT BARRIER. ROOTS WHICH PENETRATE OR ESCAPE THE BARRIER CANNOT

BE INCLUDED IN THIS PERCENTAGE. 21. ROOT BALL: THE MASS OF ROOTS INCLUDING ANY SOIL OR SUBSTRATE THAT IS SHIPPED WITI THE TREE WITHIN THE ROOT BALL PACKAGE

22. ROOT BALL PACKAGE: THE MATERIAL THAT SURROUNDS THE ROOT BALL DURING SHIPPING THE ROOT PACKAGE MAY INCLUDE THE MATERIAL IN WHICH THE PLANT WAS GROWN, OR NEW PACKAGING PLACED AROUND THE ROOT BALL FOR SHIPPING

23. ROOT COLLAR (ROOT CROWN, ROOT FLARE, TRUNK FLARE, FLARE): THE REGION AT THE BASE OF THE TRUNK WHERE THE MAJORITY OF THE STRUCTURAL ROOTS JOIN THE PLANT STEM, USUALLY AT OR NEAR GROUND LEVEL.

24. SHRUB: WOODY PLANTS WITH A MATURE HEIGHT OF APPROXIMATELY LESS THAN FIFTEEN FEET (15').

25. SPADE HARVESTED AND TRANSPLANTED: FIELD GROWN TREES THAT ARE MECHANICALLY HARVESTED AND IMMEDIATELY TRANSPLANTED TO THE FINAL GROWING SITE WITHOUT BEING REMOVED FROM THE DIGGING MACHINE.

26. STEM: THE TRUNK OF THE TREE. 27. SUBSTANTIAL COMPLETION ACCEPTANCE: THE DATE AT THE END OF THE PLANTING, PLANTING SOIL, AND IRRIGATION INSTALLATION WHERE THE LANDSCAPE ARCHITECT ACCEPTS THAT ALL WORK IN THESE SECTIONS IS COMPLETE AND THE WARRANTY PERIOD HAS BEGUN. THIS

DATE MAY BE DIFFERENT THAN THE DATE OF SUBSTANTIAL COMPLETION FOR THE OTHER SECTIONS OF THE PROJECT 28. STEM GIRDLING ROOT: ANY ROOT MORE THAN ONE-QUARTER INCH (1/4") DIAMETER CURRENTLY TOUCHING THE TRUNK, OR WITH THE POTENTIAL TO TOUCH THE TRUNK, ABOVE THE

ROOT COLLAR APPROXIMATELY TANGENT TO THE TRUNK CIRCUMFERENCE OR CIRCLING THE TRUNK. ROOTS SHALL BE CONSIDERED AS STEM GIRDLING THAT HAVE, OR ARE LIKELY TO HAVE IN THE FUTURE, ROOT TO TRUNK BARK CONTACT. 29. STRUCTURAL ROOT: ONE OF THE LARGEST ROOTS EMERGING FROM THE ROOT COLLAR.

30. TREE: SINGLE AND MULTI-STEMMED PLANTS WITH MATURE HEIGHT APPROXIMATELY GREATER THAN FIFTEEN FEET (15').

31. TREE, CANOPY: A TREE WITH A NORMAL OVERALL HEIGHT AT MATURITY OF THIRTY FEET (30')

32. TREE, CHAMPION: TREES IDENTIFIED BY THE FLORIDA DIVISION OF FORESTRY AS BEING THE LARGEST OF THEIR SPECIES WITHIN THE STATE OF FLORIDA, OR, BY THE AMERICAN FORESTRY ASSOCIATION, AS THE LARGEST OF THEIR SPECIES IN THE UNITED STATES.

33. TREE, HERITAGE: A REGULATED TREE WHOSE GROWTH (RECORDED BY DBH) REACHES A

THRESHOLD TO QUALIFY IT. IF REMOVED, FOR ADDITIONAL MITIGATION.

34. TREE. MITIGATION: ONE OR MORE TREES SHOWN ON THE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS REQUIRED TO REPLACE, IN QUANTITY AND/OR SIZE, TREES CUT DOWN

35. TREE, NUISANCE: A SPECIES OF TREE A MUNICIPALITY DECLARES UNDESIRABLE. BY BEST PRACTICE, NUISANCE TREES ARE NOT CONSIDERED REGULATED TREES AND, THEREFORE, DO NOT REQUIRE MITIGATION IN THE FORM OF FEE OR REPLACEMENT. 36. TREE, REGULATED: SURVEY TREE WHOSE GROWTH (RECORDED BY DBH) REACHES A THRESHOLD TO QUALIFY IT, IF REMOVED, FOR MITIGATION, USUALLY IN THE FORM OF FEE OR

NEW TREE PLANTINGS. 37. TREE, SURVEY: TREE RECORDED ON A TREE SURVEY WITH LOCATION, DBH, AND SPECIES. 38. TREE, UNDERSTORY: A TREE WITH A NORMAL HEIGHT AT MATURITY LESS THAN THIRTY FEET (30') AND GRATER THAN FIFTEEN FEET (15').

### B. BASIS OF DESIGN LANDSCAPE PRODUCTS

1. PLANTS: GENERAL a. THE CONTRACTOR SHALL PROVIDE PLANTS OF QUANTITY, SIZE, GENUS, SPECIES, AND VARIETY OR CULTIVARS AS SHOWN AND SCHEDULED IN THE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS.

b. ALL PLANTS SHALL CONFORM TO THE LATEST EDITIONS OF THE *FLORIDA GRADES AND* STANDARDS FOR NURSERY STOCK AND ANSI Z60.1 AMERICAN STANDARD FOR NURSERY STOCK UNLESS MODIFIED BY PROVISIONS IN THESE NOTES, DETAILS, AND DRAWINGS. c. QUALITY PLANTS ARE OF HEALTHY STOCK, GROWN IN A NURSERY, AND REASONABLY FREE OF DIE-BACK, DISEASE, INSECTS, EGGS, BORES, AND LARVAE. AT THE TIME OF PLANTING ALL

NORMAL GROWTH, STABILITY, AND HEALTH FOR THE EXPECTED LIFE OF THE PLANT d. PLANTS LARGER THAN SPECIFIED MAY BE USED IF ACCEPTABLE TO THE LANDSCAPE ARCHITECT. THE USE OF SUCH PLANTS SHALL NOT INCREASE THE CONTRACT PRICE, BUT LARGER PLANTS WILL BE UNACCEPTABLE IF THE RESULTING ROOT BALL CANNOT BE FIT INTO THE

PLANTS SHALL HAVE A ROOT SYSTEM, STEM, AND BRANCH FORM THAT WILL NOT RESTRICT

REQUIRED PLANTING SPACE. e. IF A RANGE OF SIZE IS GIVEN, NO PLANT SHALL BE LESS THAN THE MINIMUM SIZE. THE MEASUREMENTS SPECIFIED ARE THE MINIMUM AND MAXIMUM SIZE ACCEPTABLE AND ARE THE MEASUREMENTS AFTER PRUNING, WHERE PRUNING IS REQUIRED.

f. ALL PLANTS SHALL BE TRUE TO NAME AS ORDERED OR SHOWN ON PLANTING PLANS. g. ALL TREES SHALL COMPLY WITH FEDERAL AND STATE LAWS AND REGULATIONS REQUIRING OBSERVATION FOR PLANT DISEASE, PESTS, AND WEEDS. OBSERVATION CERTIFICATES REQUIRED BY LAW SHALL ACCOMPANY EACH SHIPMENT OF PLANTS. 2. PLANTS: QUALITY ABOVE THE SOIL LINE

a. PLANTS SHALL BE HEALTHY WITH THE COLOR, SHAPE, SIZE AND DISTRIBUTION OF TRUNK, STEMS, BRANCHES, BUDS AND LEAVES NORMAL TO THE PLANT TYPE SPECIFIED. TREE QUALITY ABOVE THE SOIL LINE SHALL COMPLY WITH FLORIDA GRADES AND STANDARDS, TREE GRADE FLORIDA FANCY OR FLORIDA #1, AND THE FOLLOWING:

1) TREES SHALL HAVE ONE CENTRAL LEADER. IF THE LEADER WAS HEADED, A NEW LEADER (WITH A LIVE TERMINAL BUD) AT LEAST ONE-HALF THE DIAMETER OF THE PRUNING CUT SHALL BE PRESENT.

 a) ALL TREES ARE ASSUMED TO HAVE ONE CENTRAL LEADER TREES UNLESS A DIFFERENT FORM IS SPECIFIED IN THE PLANT LIST OR DRAWINGS.

2) ALL GRAFT UNIONS, WHERE APPLICABLE, SHALL BE COMPLETELY CLOSED WITHOUT THE

VISIBLE SIGN OF GRAFT REJECTION. ALL GRAFTS SHALL BE VISIBLE ABOVE THE SOIL LINE. 3) TRUNK CALIPER AND TAPER SHALL BE SUFFICIENT SO THAT THE LOWER FIVE FEET (5') OF THE TRUNK REMAINS VERTICAL WITHOUT A STAKE. AUXILIARY STAKE MAY BE USED TO MAINTAIN A STRAIGHT LEADER IN THE UPPER HALF OF THE TREE.

b. CROWN: THE FORM AND DENSITY OF THE CROWN SHALL BE TYPICAL FOR A YOUNG SPECIMEN OF THE SPECIES OR CULTIVAR PRUNED TO A CENTRAL AND DOMINANT LEADER. 1) CROWN SPECIFICATIONS DO NOT APPLY TO PLANTS THAT HAVE BEEN SPECIFICALLY TRAINED IN THE NURSERY AS TOPIARY, ESPALIER, MULTI-STEM, CLUMP, OR UNIQUE SELECTIONS

SUCH AS CONTORTED OR WEEPING CULTIVARS. c. LEAVES: THE SIZE, COLOR, AND APPEARANCE OF LEAVES SHALL BE TYPICAL FOR THE TIME OF YEAR AND STAGE OF GROWTH OF THE SPECIES OR CULTIVAR. TREES SHALL NOT SHOW SIGNS OF PROLONGED MOISTURE STRESS OR OVER WATERING AS INDICATED BY WILTED, SHRIVELED, OR

d. BRANCHES: SHOOT GROWTH (LENGTH AND DIAMETER) THROUGHOUT THE CROWN SHOULD BE APPROPRIATE FOR THE AGE AND SIZE OF THE SPECIES OR CULTIVAR. TREES SHALL NOT HAVE DEAD, DISEASED, BROKEN, DISTORTED, OR OTHERWISE INJURED BRANCHES. 1) MAIN BRANCHES SHALL BE DISTRIBUTED ALONG THE CENTRAL LEADER NOT CLUSTERED

TOGETHER. THEY SHALL FORM A BALANCED CROWN APPROPRIATE FOR THE CULTIVAR/SPECIES. 2) BRANCH DIAMETER SHALL BE NO LARGER THAN TWO-THIRDS (ONE-HALF IS PREFERRED) THE DIAMETER OF THE CENTRAL LEADER MEASURED ONE-INCH (1") ABOVE THE BRANCH UNION. 3) THE ATTACHMENT OF THE LARGEST BRANCHES (SCAFFOLD BRANCHES) SHALL BE FREE

OF INCLUDED BARK. e. TRUNK: THE TREE TRUNK SHALL BE RELATIVELY STRAIGHT, VERTICAL, AND FREE OF WOUNDS THAT PENETRATE TO THE WOOD (PROPERLY MADE PRUNING CUTS, CLOSED OR NOT, ARE ACCEPTABLE AND ARE NOT CONSIDERED WOUNDS), SUNBURNED AREAS, CONKS (FUNGAL FRUITING BODIES), WOOD CRACKS, SAP LEAKAGE, SIGNS OF BORING INSECTS, GALLS, CANKERS, GIRDLING TIES, OR LESIONS (MECHANICAL INJURY).

f. TEMPORARY BRANCHES, UNLESS OTHERWISE SPECIFIED, CAN BE PRESENT ALONG THE LOWER TRUNK BELOW THE LOWEST MAIN (SCAFFOLD) BRANCH, PARTICULARLY FOR TREES LESS THAN ONE INCH (1") IN CALIPER. THESE BRANCHES SHOULD BE NO GREATER THAN THREE-EIGHTHS INCH (3/8") DIAMETER. CLEAR TRUNK SHOULD BE NO MORE THAN FORTY PERCENT (40%) OF THE TOTAL HEIGHT OF THE TREE.

3. PLANTS: QUALITY AT OR BELOW THE SOIL LINE a. PLANT ROOTS SHALL BE NORMAL TO THE PLANT TYPE SPECIFIED. ROOT OBSERVATIONS SHALL TAKE PLACE WITHOUT IMPACTING TREE HEALTH. ROOT QUALITY AT OR BELOW THE SOIL

LINE SHALL COMPLY WITH THE PROJECT ROOT ACCEPTANCE DETAILS AND THE FOLLOWING: 1) THE ROOTS SHALL BE REASONABLY FREE OF SCRAPES, BROKEN OR SPLIT WOOD. 2) THE ROOT SYSTEM SHALL BE REASONABLY FREE OF INJURY FROM BIOTIC (E.G., INSECTS

AND PATHOGENS) AND ABIOTIC (E.G., HERBICIDE TOXICITY AND SALT INJURY) AGENTS. WOUNDS RESULTING FROM ROOT PRUNING USED TO PRODUCE A HIGH-QUALITY ROOT SYSTEM ARE NOT 3) A MINIMUM OF THREE STRUCTURAL ROOTS REASONABLY DISTRIBUTED AROUND THE

TRUNK (NOT CLUSTERED ON ONE SIDE) SHALL BE FOUND IN EACH PLANT. ROOT DISTRIBUTION

BE REJECTED.

SHALL BE UNIFORM THROUGHOUT THE ROOT BALL, AND GROWTH SHALL BE APPROPRIATE FOR THE SPECIES. 4) PLANTS WITH STRUCTURAL ROOTS ON ONLY ONE SIDE OF THE TRUNK (J ROOTS) SHALL

5) THE ROOT COLLAR SHALL BE WITHIN THE UPPER TWO INCHES (2") OF THE SUBSTRATE/SOIL. TWO (2) STRUCTURAL ROOTS SHALL REACH THE SIDE OF THE ROOT BALL NEAR THE TOP SURFACE OF THE ROOT BALL. THE GROWER MAY REQUEST A MODIFICATION TO THIS REQUIREMENT FOR SPECIES WITH ROOTS THAT RAPIDLY DESCEND, PROVIDED THAT THE GROWER REMOVES ALL STEM GIRDLING ROOTS ABOVE THE STRUCTURAL ROOTS ACROSS THE TOP OF THE ROOT BALL.

6) THE ROOT SYSTEM SHALL BE REASONABLY FREE STEM GIRDLING ROOTS OVER THE ROOT COLLAR OR KINKED ROOTS FROM NURSERY PRODUCTION PRACTICES.

7) THE FINAL PLANT GROWER SHALL BE RESPONSIBLE TO HAVE DETERMINED THAT THE PLANTS HAVE BEEN ROOT PRUNED AT EACH STEP IN THE PLANT PRODUCTION PROCESS TO REMOVE STEM GIRDLING ROOTS AND KINKED ROOTS, OR THAT THE PREVIOUS PRODUCTION SYSTEM USED PRACTICES THAT PRODUCE A ROOT SYSTEM THROUGHOUT THE ROOT BALL THAT MEETS THESE SPECIFICATIONS. REGARDLESS OF THE WORK OF PREVIOUS GROWERS, THE PLANT'S ROOT SYSTEM SHALL BE MODIFIED AT THE FINAL PRODUCTION STAGE, IF NEEDED, TO PRODUCE

THE REQUIRED PLANT ROOT QUALITY.

8) AT TIME OF OBSERVATIONS AND DELIVERY, THE ROOT BALL SHALL BE MOIST THROUGHOUT. ROOTS SHALL NOT SHOW SIGNS OF EXCESS SOIL MOISTURE CONDITIONS AS INDICATED BY STUNTED, DISCOLORED, DISTORTED, OR DEAD ROOTS.

☐ b. THE CONTRACTOR SHALL SUBMIT THE FINAL PLANT GROWER'S PLANT QUALITY CERTIFICATIONS FOR EACH PLANT TYPE TO THE LANDSCAPE ARCHITECT. THE CERTIFICATION MUST STATE THAT EACH PLANT MEETS ALL THE ABOVE PLANT QUALITY REQUIREMENTS. 1) THE GROWER'S CERTIFICATION OF PLANT QUALITY DOES NOT PROHIBIT THE LANDSCAPE ARCHITECT FROM OBSERVING ANY PLANT OR REJECTING THE PLANT IF IT IS FOUND TO NOT MEET

THE SPECIFICATION REQUIREMENTS. 4. ROOT BALL PACKAGE OPTIONS. SPECIFIC ROOT BALL PACKAGES SHALL BE REQUIRED WHERE INDICATED ON THE PLANT LIST OR IN THIS SPECIFICATION. ANY TYPE OF ROOT BALL PACKAGES THAT IS NOT SPECIFICALLY DEFINED IN THESE NOTES OR DRAWINGS SHALL NOT BE PERMITTED. THE FOLLOWING ROOT BALL PACKAGES ARE PERMITTED:

a. BALLED AND BURLAPPED PLANTS 1) ALL BALLED AND BURLAPPED PLANTS SHALL BE FIELD GROWN, AND THE ROOT BALL

PACKAGED IN A BURLAP AND TWINE AND/OR BURLAP AND WIRE BASKET PACKAGE. 2) PLANTS SHALL BE HARVESTED WITH THE FOLLOWING MODIFICATIONS TO STANDARD

3) PRIOR TO DIGGING ANY TREE THAT FAILS TO MEET THE REQUIREMENT FOR MAXIMUM SOIL AND ROOTS ABOVE THE ROOT COLLAR, CAREFULLY REMOVED THE SOIL FROM THE TOP OF THE ROOT BALL OF EACH PLANT, USING HAND TOOLS, WATER OR AN AIR SPADE, TO LOCATE THE ROOT COLLAR AND ATTAIN THE SOIL DEPTH OVER THE STRUCTURAL ROOTS REQUIREMENTS. REMOVE ALL STEM GIRDLING ROOTS ABOVE THE ROOT COLLAR. CARE MUST BE EXERCISED NOT TO DAMAGE THE SURFACE OF THE ROOT COLLAR AND THE TOP OF THE STRUCTURAL ROOTS.

4) TREES SHALL BE DUG FOR A MINIMUM OF FOUR (4) WEEKS AND A MAXIMUM OF FIFTY-TWO (52) WEEKS PRIOR TO SHIPPING. TREES DUG FOUR TO FIFTY-TWO (4 TO 52) WEEKS PRIOR TO SHIPPING ARE DEFINED AS HARDENED OFF. DIGGING IS DEFINED AS CUTTING ALL ROOTS AND LIFTING THE TREE OUT OF THE GROUND AND EITHER MOVING IT TO A NEW LOCATION IN THE NURSERY OR PLACING IT BACK INTO THE SAME HOLE. TREES THAT ARE STORED OUT OF THE GROUND SHALL BE PLACED IN A HOLDING AREA PROTECTED FROM EXTREMES OF WIND AND SUN WITH THE ROOT BALL PROTECTED BY COVERING WITH MULCH OR STRAW AND IRRIGATED SUFFICIENTLY TO KEEP MOISTURE IN THE ROOT BALL ABOVE WILT POINT AND BELOW

5) IF WIRE BASKETS ARE USED TO SUPPORT THE ROOT BALL, A "LOW PROFILE" BASKET SHALL BE USED. A LOW-PROFILE BASKET IS DEFINED AS HAVING THE TOP OF THE HIGHEST LOOPS ON THE BASKET NO LESS THAN FOUR-INCHES (4") AND NO GREATER THAN EIGHT-INCHES (8") BELOW THE SHOULDER OF THE ROOT BALL PACKAGE.

a) AT NURSERIES WHERE SANDY SOILS PREVENT THE USE OF "LOW PROFILE BASKETS", BASKETS THAT SUPPORT THE ENTIRE ROOT BALL, INCLUDING THE TOP, ARE ALLOWABLE. 6) TWINE AND BURLAP USED FOR WRAPPING THE ROOT BALL PACKAGE SHALL BE NATURAL, BIODEGRADABLE MATERIAL. IF THE BURLAP DECOMPOSES AFTER DIGGING THE TREE, THEN THE ROOT BALL SHALL BE RE-WRAPPED PRIOR TO SHIPPING IF ROOTS HAVE NOT YET GROWN TO KEEP ROOT BALL INTACT DURING SHIPPING.

c. CONTAINER (INCLUDING ABOVE-GROUND FABRIC CONTAINERS AND BOXES) PLANTS 1) CONTAINER PLANTS MAY BE PERMITTED ONLY WHEN INDICATED ON THE DRAWING, IN THIS SPECIFICATION, OR APPROVED BY THE LANDSCAPE ARCHITECT.

2) PROVIDE PLANTS SHALL BE ESTABLISHED AND WELL ROOTED IN REMOVABLE

CONTAINERS. 5. PALMS a. STANDARDS FOR PREPARING PALMS FOR TRANSPLANTING AND ESTABLISHMENT VARY BY SPECIES. GENERALLY, IN PREPARING PALM TREES FOR RELOCATION, ONLY REMOVE FRONDS THAT ARE COMPLETELY BROWN AND THAT HANG BELOW THE NINE (9) 'O'CLOCK OR THREE (3) 'O'CLOCK

POSITION. 1) ALL FRONDS CAN BE REMOVED ON SABAL PALMS.

b. ALL REMAINING FRONDS ABOVE HORIZONTAL SHALL BE LIFTED UP AND TIED TOGETHER AROUND THE CROWN IN AN UPRIGHT POSITION. UP TO TWO-THIRDS (2/3) OF THE OLDEST LIVE FRONDS CAN BE REMOVED; DO NOT TIE TOO TIGHTLY, BIND OR INJURE THE BUD. JUTE BINDER TWINE SHALL BE USED IN TYING UP THE FRONDS; WIRE WILL NOT BE PERMITTED. FRONDS SHALL BE UNTIED IMMEDIATELY AFTER PLANTING.

c. THE CONTRACTOR SHALL NOT FREE-FALL, DRAG, ROLL OR ABUSE THE TREE OR PUT A STRAIN ON THE CROWN (BUD AREA) AT ANY TIME. A PROTECTIVE DEVICE SHALL BE USED AROUND THE TRUNK OF THE TREE WHILE LIFTING AND RELOCATING SO AS NOT TO INJURE THE BUD, OR SCAR OR SKIN THE TRUNK IN ANY WAY.

6. BELOW GROUND ANCHORAGE SYSTEMS (TREE STAPLES), TREE GUYING MATERIAL AND

a. THE USE OF WOOD TREE STAPLES IS THE PREFERRED SYSTEM OF JBPRO FOR SECURING MOST NEWLY PLANTED TREES. METAL TREE STAPLES ARE ACCEPTABLE. b. BASIS OF DESIGN FOR TREE STAPLES TO BE CONSTRUCTED OF TWO-BY-TWO (2x2)

DIMENSIONAL UNTREATED WOOD SECURING (USING THREE-INCH (3") LONG SCREWS) HORIZONTAL PORTIONS TO FOUR-FEET (4') LONG VERTICAL STAKES DRIVEN STRAIGHT INTO THE GROUND OUTSIDE THE ROOT BALL

c. THE BASIS OF DESIGN FOR TREE GUYING IS ARBOR-TIE, FLAT WOVEN POLYPROPYLENE, THREE-QUARTERS INCH (3/4") WIDE, AND NINE HUNDRED (900) POUND BREAK STRENGTH. COLOR TO BE GREEN. MANUFACTURED BY DEEP ROOT PARTNERS, L.P. OR APPROVED EQUAL. AVAILABLE ONLINE AT <a href="https://www.deeproot.com/products/arbortie/arbortie-green/#head">https://www.deeproot.com/products/arbortie/arbortie-green/#head</a> d. THE BASIS OF DESIGN FOR STAKING IS LODGEPOLE PINE STAKES FREE OF KNOTS AND OF

DIAMETERS AND LENGTHS APPROPRIATE TO THE SIZE OF PLANT AS REQUIRED TO ADEQUATELY SUPPORT THE PLANT.

☐ e. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OF THE METHOD FOR SECURING TREES, SUBMIT PRODUCT SPECIFICATIONS TO THE LANDSCAPE ARCHITECT FOR

### APPROVAL 7. WOOD MULCH (PLANTING AREAS AND PATHWAYS)

a. WOOD MULCH SHALL BE "WALK ON" GRADE (A.K.A. "PATHWAY" GRADE), COARSE, GROUND, FROM TREE AND WOODY BRUSH SOURCES. PINE BARK IS ACCEPTABLE IF IT IS SHREDDED AND MEETS THE FOLLOWING CRITERIA. THE SIZE RANGE SHALL BE A MINIMUM (LESS THAN TWENTY-FIVE PERCENT (25%) OR LESS OF VOLUME) FINE PARTICLES THREE-EIGHTHS-INCH (3/8") OR LESS IN SIZE, AND A MAXIMUM SIZE OF INDIVIDUAL PIECES (LARGEST TWENTY PERCENT (20%) OR LESS OF VOLUME) SHALL BE APPROXIMATELY ONE TO ONE-AND-ONE-HALF INCHES (1" TO 1½") IN DIAMETER AND MAXIMUM LENGTH APPROXIMATELY FOUR TO EIGHT INCHES (4" TO 8"). PIECES LARGER THAN EIGHT INCHES (8") LONG THAT ARE VISIBLE ON THE SURFACE OF THE MULCH AFTER INSTALLATION SHALL BE REMOVED. APPLY WOOD MULCH TO A DEPTH OF THREE INCHES (3") UNLESS SPECIFICALLY NOTED IN LANDSCAPE ARCHITECTURAL DETAILS.

☐ 1) SUBMIT MANUFACTURER'S PRODUCT DATA THAT PRODUCT MEETS THE REQUIREMENTS TO THE LANDSCAPE ARCHITECT FOR APPROVAL, OR

2) SUBMIT A WOOD MULCH SAMPLE TO THE OFFICES OF JBPRO FOR LANDSCAPE ARCHITECT FOR APPROVAL IN A ONE (1) GALLON CONTAINER.

a) BECAUSE WOOD MULCH QUALITY CAN VARY SIGNIFICANTLY BETWEEN SUPPLIERS AND REGIONS, THE CONTRACTOR MAY SUBMIT A REQUEST TO THE LANDSCAPE ARCHITECT TO DEVIATE FROM THE ABOVE REQUIREMENTS TO PROVIDE ADEQUATE MATERIAL FROM LOCALLY RELIABLE SUPPLIERS. 8. PINE STRAW

a. PINE STRAW MULCH SHALL BE COMPRISED OF PINE NEEDLES BETWEEN EIGHT INCHES AND SEVENTEEN INCHES (8" AND 17"). PINE STRAW MULCH SHOULD BE FREE OF PINE BARK, TWIGS, AND OTHER FOREST FLOOR DEBRIS. IN FLORIDA, PINE STRAW IS TYPICALLY GATHERED FROM LONGLEAF, SLASH, AND LOBLOLLY PINES. APPLY PINE STRAW MULCH TO A DEPTH OF THREE INCHES (3") UNLESS SPECIFICALLY NOTED IN LANDSCAPE ARCHITECTURAL DETAILS. HOWEVER, PINE STRAW MULCH READILY COMPACTS WITH TIME, AND MULTIPLE APPLICATIONS ARE

NECESSARY TO ESTABLISH THE THREE INCH (3") DEPTH. MULTIPLE PINE STRAW MULCH APPLICATIONS MAY BE NECESSARY WITHIN A YEAR OF THE FIRST APPLICATION.

 $\square$  1) SUBMIT MANUFACTURER'S PRODUCT DATA THAT PRODUCT MEETS THE REQUIREMENTS TO THE LANDSCAPE ARCHITECT FOR APPROVAL, OR

2) SUBMIT PINE STRAW MULCH SAMPLE TO THE OFFICES OF JBPRO FOR LANDSCAPE ARCHITECT FOR APPROVAL IN A ONE (1) GALLON CONTAINER.

3) SUBMIT A SCHEDULE TO THE LANDSCAPE ARCHITECT FOR DELIVERING AND APPLYING FOLLOW-ON APPLICATIONS OF PINE STRAW MULCH WITHIN A YEAR OF THE FIRST APPLICATION. 9. TREE BARK PROTECTION

a. TREE BARK PROTECTORS SHALL BE BLACK EXTRUDED RESIN MESH, FOUR INCHES (4") IN DIAMETER, FIVE FEET (5') LONG. THE BASIS OF DESIGN IS MANUFACTURED BY INDUSTRIAL NETTING, MINNEAPOLIS, MN, USA OR APPROVED EQUAL, AVAILABLE ONLINE AT <a href="https://www.industrialnetting.com/tree-bark-protectors.html">https://www.industrialnetting.com/tree-bark-protectors.html</a>.

b. FASTEN THE SPLIT SIDE OF THE TREE BARK PROTECTOR TOGETHER IN THREE PLACES WITH BLACK PLASTIC TAPE.

☐ c. SUBMIT MANUFACTURERS' PRODUCT DATA TO THE LANDSCAPE ARCHITECT FOR

### APPROVAL. 10. TREE WATERING BAGS

SUBMIT A PLAN FOR USING SLOW-RELEASE WATERING BAGS OR OTHER MEANS b. WATER BAGS ARE ONLY FOR TREES BETWEEN ONE AND EIGHT INCHES (1" TO 8") TRUNK DIAMETER WITH BRANCHES AT LEAST TWENTY-FIVE INCHES (25") FROM THE GROUND.

c. TREE WATERING BAGS SHOULD HOLD A MINIMUM OF TWENTY-FIVE (25) GALLONS OF WATER AND WITH A SLOW DRIP HOLE(S) WATER RELEASE SYSTEM, SPECIFICALLY DESIGNED TO WATER ESTABLISHING TREES. WATER SHOULD RELEASE OVER A SEVERAL DAY PERIOD, NOT WITHIN A FEW HOURS

a. IF IRRIGATION IS UNAVAILABLE FOR NEWLY PLANTED TREES, THE CONTRACTOR SHALL

d. THE BASIS OF DESIGN FOR WATERING BAGS IS TREEGATOR® BRAND BAGS MANUFACTURED BY SPECTRUM PRODUCTS, INC., YOUNGSVILLE, NORTH CAROLINA 27596, AND AVAILABLE ONLINE AT <a href="https://treegator.com/products/original/index.html">https://treegator.com/products/original/index.html</a>, OR APPROVED EQUAL. ☐ e. SUBMIT THE MANUFACTURER'S PRODUCT DATA FOR APPROVAL ALONG WITH A

SCHEDULE FOR REFILLING THE WATERING BAGS. f. THE WATERING BAGS SHALL REMAIN THE PROPERTY OF THE OWNER AT THE COMPLETION

OF THE WORK. 11. VOLUMETRIC SOIL MOISTURE READER

a. THE VOLUMETRIC SOIL MOISTURE READER SHALL BE A PRECISION DIGITAL SOIL MOISTURE METER WITH ELECTRIC CONDUCTIVITY PROBE.

b. MODEL DSMM500 BY GENERAL® SPECIALTY TOOLS AND INSTRUMENTS < https://generaltools.com/soil-moisture-meter>, OR APPROVED EQUIVALENT.

☐ c. SUBMIT MANUFACTURER'S PRODUCT DATA THAT PRODUCT MEETS THE REQUIREMENTS TO THE LANDSCAPE ARCHITECT FOR APPROVAL. 12. SOIL COMPACTION TESTER

a. FOR ASSESSING SOIL COMPACTION, USE A SPONTON® DIGITAL SOIL COMPACTION METER. b. MODEL 29360, AVAILABLE THROUGH FORESTRY SUPPLIERS <https://gemplers.com/products/spoton-digital-soil-compaction-meter>, OR APPROVED

 $\ \square$  c. Submit manufacturer's product data that product meets the requirements TO THE LANDSCAPE ARCHITECT FOR APPROVAL.

## C. SELECTION AND OBSERVATION OF PLANTS

1. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO SELECT AND OBSERVE ALL PLANTS AT THE NURSERY PRIOR TO DELIVERY AND TO REJECT PLANTS THAT DO NOT MEET SPECIFICATIONS AS SET FORTH IN LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS. IF A PARTICULAR DEFECT OR SUBSTANDARD ELEMENT CAN BE CORRECTED AT THE NURSERY, AS ACCEPTED BY THE LANDSCAPE ARCHITECT. THE REMEDY MAY BE APPLIED AT THE NURSERY. ANY WORK TO CORRECT PLANT DEFECTS SHALL BE AT THE CONTRACTOR'S EXPENSE.

2. IF THE LANDSCAPE ARCHITECT IS UNABLE TO OBSERVE PLANTS AT THE NURSERY PRIOR TO DELIVERY, THE LANDSCAPE ARCHITECT MAY OBSERVE AND APPROVAL ALL PLANTS UPON DELIVERY SUBJECT TO SIZE, HEALTH, QUALITY, CHARACTER, ETC.

3. REVIEW OR APPROVAL OF ANY PLANT DURING THE PROCESS OF SELECTION, DELIVERY, INSTALLATION AND ESTABLISHMENT PERIOD SHALL NOT PREVENT THAT PLANT FROM LATER REJECTION IN THE EVENT THAT THE PLANT QUALITY CHANGES OR PREVIOUSLY EXISTING DEFECTS

a. THE LANDSCAPE ARCHITECT MAY MAKE INVASIVE OBSERVATION OF ANY PLANT'S ROOT SYSTEM IN THE AREA OF THE ROOT COLLAR AND THE TOP OF THE ROOT BALL IN GENERAL TO DETERMINE THAT THE PLANT MEETS THE QUALITY REQUIREMENTS FOR DEPTH OF THE ROOT COLLAR AND PRESENCE OF ROOTS ABOVE THE ROOT COLLAR. SUCH OBSERVATIONS WILL NOT HARM THE PLANT.

b. THE CONTRACTOR SHALL BEAR ALL COST RELATED TO PLANT CORRECTIONS.

c. ALL PLANTS THAT ARE REJECTED SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND ACCEPTABLE REPLACEMENT PLANTS PROVIDED AT NO COST TO THE OWNER. d. PER LANDSCAPE ARCHITECT GENERAL NOTES ON SHEET LG-01, SUBMIT TO THE LANDSCAPE ARCHITECT THE NAMES AND LOCATIONS OF NURSERIES PROPOSED AS SOURCES OF ACCEPTABLE

PLANTS, AND A LIST OF THE PLANTS (BY COMMON AND SCIENTIFIC NAME) THEY WILL PROVIDE.  $\square$  e. Where requested by the Landscape architect, submit photographs of plants OR REPRESENTATIVE SAMPLES OF PLANTS. PHOTOGRAPHS SHALL BE LEGIBLE AND CLEARLY DEPICT THE PLANT SPECIMEN. EACH SUBMITTED IMAGE SHALL CONTAIN A HEIGHT REFERENCE, SUCH AS A MEASURING STICK. THE APPROVAL OF PLANTS BY THE LANDSCAPE ARCHITECT VIA PHOTOGRAPH DOES NOT PRECLUDE THE LANDSCAPE ARCHITECT 'S RIGHT TO REJECT MATERIAL WHILE ON SITE. 4. THE CONTRACTOR SHALL PURCHASE TREES SHALL BE PURCHASED FROM THE GROWING

 $\square$  a. If the Contractor seeks to use a re-wholesale plan supplier for trees, s/He MUST SUBMIT A LETTER TO THE LANDSCAPE ARCHITECT CERTIFYING THE REQUIRED TREES ARE

NOT DIRECTLY AVAILABLE FROM A GROWING NURSERY. 1) THE CONTRACTOR SHALL SUBMIT THE NAME AND LOCATION OF THE GROWING NURSERY FROM WHERE THE TREES WERE OBTAINED BY THE RE-WHOLESALE SELLER TO THE

LANDSCAPE ARCHITECT. 2) THE RE-WHOLESALE NURSERY SHALL BE RESPONSIBLE FOR ANY REQUIRED PLANT QUALITY CERTIFICATIONS.

b. THE CONTRACTOR SHALL REQUIRE THE GROWER OR RE-WHOLESALE SUPPLIER TO PERMIT THE LANDSCAPE ARCHITECT TO OBSERVE THE ROOT SYSTEM OF ALL PLANTS AT THE NURSERY OR JOB SITE PRIOR TO PLANTING INCLUDING RANDOM REMOVAL OF SOIL OR SUBSTRATE AROUND THE BASE OF THE PLANT. OBSERVATION MAY BE AS FREQUENT AND AS EXTENSIVE AS NEEDED TO VERIFY THAT THE PLANTS MEET THE REQUIREMENTS OF THE SPECIFICATIONS AND CONFORM TO REQUIREMENTS.

## D. PLANT SUBSTITUTIONS FOR UNAVAILABLE PLANTS

 $\ \square$  1. THE CONTRACTOR SHALL SUBMIT ALL REQUESTS FOR PLANT SPECIES SUBSTITUTIONS, OR PLANT SIZE, TO THE LANDSCAPE ARCHITECT FOR APPROVAL AND PRIOR TO PURCHASING THE PROPOSED SUBSTITUTION.

a. REQUESTS SHALL ALSO INCLUDE SOURCES OF PLANTS FOUND THAT MAY BE OF A SMALLE OR LARGER SIZE, OR A DIFFERENT SHAPE OR HABIT THAN SPECIFIED, OR PLANTS OF THE SAME GENUS AND SPECIES BUT DIFFERENT CULTIVAR ORIGIN, OR WHICH MAY OTHERWISE NOT MEET THE REQUIREMENTS OF THE SPECIFICATIONS, BUT WHICH MAY BE AVAILABLE FOR SUBSTITUTION.

### PART IV. LANDSCAPE INSTALLATION A. SITE CONDITIONS

1. THE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS REQUIRE ALL APPLICABLE

PLANTING SOIL AND IRRIGATION WORK BE COMPLETED AND ACCEPTED PRIOR TO THE

a. PLANTING OPERATIONS SHALL NOT BEGIN UNTIL SUCH TIME THAT THE IRRIGATION SYSTEM IS COMPLETELY OPERATIONAL FOR THE AREA(S) TO BE PLANTED, AND THE IRRIGATION SYSTEM FOR THAT AREA HAS BEEN PRELIMINARILY OBSERVED AND APPROVED BY THE LANDSCAPE ARCHITECT.

2. ACTUAL PLANTING SHALL BE PERFORMED DURING THOSE PERIODS WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE IN ACCORDANCE WITH LOCALLY ACCEPTED HORTICULTURAL

a. UNLESS A TIME PERIOD IS SPECIFIED IN THE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS, AN APPROVED REFERENCE IS THE COUNTY/REGIONAL UF/IFAS AGRICULTURAL EXTENSION.

b. DO NOT INSTALL PLANTS INTO SATURATED SOILS. DO NOT INSTALL PLANTS DURING INCLEMENT WEATHER, SUCH AS RAIN OR DURING EXTREMELY HOT, COLD OR WINDY CONDITIONS c. IN HARDINESS ZONES 7-11, PLANTING HARDENED-OFF AND BALLED AND BURLAPPED TREES

AND SHRUBS CAN GENERALLY OCCUR YEAR-ROUND. d. IN HARDINESS ZONES 7-11, PLANTING TREES AND SHRUBS FROM CONTAINERS CAN GENERALLY OCCUR YEAR-ROUND.

e. IN REGIONS WHERE THE SOIL TEMPERATURE DROPS BELOW 40-DEGREES FAHRENHEIT, CEASE PLANTING TRESS AND SHRUBS FOUR (4) WEEKS PRIOR TO THE SOIL REACHING THIS TEMPERATURE. RESUME PLANTING WHEN THE SOIL TEMPERATURE IS EXPECTED TO REMAIN

ABOVE 40 DEGREES. f. DO NOT PLANT FRESHLY DUG TREES THAT ARE NOT HARDENED-OFF.

UTILITIES THAT ARE NOT COVERED BY THE LOCAL UTILITY LOCATOR SERVICE.

g. NO PLANTING SHALL TAKE PLACE DURING EXTREMELY HOT, DRY, WINDY OR FREEZING WEATHER. 3. THE CONTRACTOR SHALL CAREFULLY EXAMINE THE CIVIL, RECORD, AND SURVEY DRAWINGS TO BECOME FAMILIAR WITH THE EXISTING UNDERGROUND CONDITIONS BEFORE DIGGING. 4. NOTIFICATION OF THE LOCAL UTILITY LOCATOR SERVICE IS REQUIRED FOR ALL PLANTING

AREAS: THE CONTRACTOR IS RESPONSIBLE FOR KNOWING THE LOCATION AND AVOIDING

B. DELIVERY, STORAGE AND HANDLING 1. THE CONTRACTOR SHALL PROTECT MATERIALS FROM DETERIORATION DURING DELIVERY AND STORAGE. ADEQUATELY PROTECT PLANTS FROM DRYING OUT, EXPOSURE OF ROOTS TO SUN, WIND OR EXTREMES OF HEAT AND COLD TEMPERATURES. IF PLANTING IS DELAYED MORE THAN TWENTY (24) HOURS AFTER DELIVERY, SET PLANTS IN A LOCATION PROTECTED FROM SUN AND

a. WHILE IN STORAGE, BRACE TREES TO PREVENT TOPPLING OVER ONTO THEIR SIDES 1) THE LANDSCAPE ARCHITECT WILL REJECT TREES WITH MULTIPLE DAMAGED OR BROKEN

BRANCHES ON A SINGLE SIDE. b. PROVIDE ADEQUATE WATER TO THE ROOT BALL PACKAGE DURING THE SHIPPING AND

STORAGE PERIOD. c. DO NOT DELIVER MORE PLANTS TO THE SITE THAN THERE IS SPACE WITH ADEQUATE STORAGE CONDITIONS. PROVIDE A SUITABLE REMOTE STAGING AREA FOR PLANTS AND OTHER SUPPLIES.

d. PROVIDE PROTECTIVE COVERING OVER ALL PLANTS DURING TRANSPORTING. 2. THE CONTRACTOR, USING A SOIL MOISTURE METER, SHALL DAILY CHECK THE SOIL MOISTURE IN THE ROOT BALLS OF ALL PLANTS TO ASSURE THE PLANTS ARE BEING ADEQUATELY WATERED. VOLUMETRIC SOIL MOISTURE SHALL BE MAINTAINED ABOVE WILTING POINT AND BELOW FIELD CAPACITY FOR THE ROOT BALL SUBSTRATE OR SOIL.

## C. LAYOUT AND PLANTING SEQUENCE

 $\Box$ 1. NOTIFY THE LANDSCAPE ARCHITECT, MINIMUM OF FOURTEEN (14) DAYS PRIOR TO LAYOUT. LAYOUT ALL INDIVIDUAL TREE AND SHRUB LOCATIONS. PLACE PLANTS ABOVE SURFACE AT PLANTING LOCATION OR PLACE A LABELED STAKE AT PLANTING LOCATION

a. LAYOUT BED LINES WITH PAINT FOR THE LANDSCAPE ARCHITECT'S APPROVAL. RELATIVE POSITIONS OF ALL PLANTS AND TREES ARE SUBJECT TO LANDSCAPE ARCHITECT APPROVAL. b. THE LANDSCAPE ARCHITECT UNDERSTANDS PLANTS ARE NOT PRECISE OBJECTS AND MINOR ADJUSTMENTS IN THE LAYOUT WILL BE REQUIRED AS THE CONTRACTOR INSTALLS THE PLANTING PLAN. THESE ADJUSTMENTS MAY NOT BE APPARENT UNTIL SOME OR ALL OF THE PLANTS ARE INSTALLED. MAKE ADJUSTMENTS AS REQUIRED BY THE LANDSCAPE ARCHITECT INCLUDING

RELOCATING PREVIOUSLY INSTALLED PLANTS. c. THE LANDSCAPE ARCHITECT MAY REQUEST THAT PLANTS ORIENTATION BE ROTATED WHEN

PLANTED BASED ON THE FORM OF THE PLANT.

d. WHEN APPLICABLE, PLANT TREES BEFORE OTHER PLANTS ARE INSTALLED.

LOCATIONS, DIGGING OF PLANTING HOLES AND INSTALLING PLANTS.

### D. SOIL PROTECTION DURING PLANT DELIVERY AND INSTALLATION 1. PROTECT SOIL FROM COMPACTION DURING THE DELIVERY OF PLANTS TO THE PLANTING

a. WHERE POSSIBLE DELIVER AND PLANT TREES THAT REQUIRE THE USE OF HEAVY MECHANIZED EQUIPMENT PRIOR TO FINAL SOIL PREPARATION AND TILLING. WHERE POSSIBLE, RESTRICT THE DRIVING LANES TO ONE AREA INSTEAD OF DRIVING OVER AND COMPACTING A LARGE AREA OF SOIL

b. TILL TO A DEPTH OF SIX INCHES (6"), ALL SOIL THAT HAS BEEN DRIVEN OVER DURING THE

## **E. SOIL MOISTURE**

INSTALLATION OF PLANTS.

1. THE CONTRACTOR SHALL CONFIRM THE SOIL MOISTURE LEVELS IN PLANTING SOIL AND THE ROOT BALLS OF ALL PLANTS PRIOR TO, DURING, AND AFTER PLANTING USING A MOISTURE METER. IF THE MOISTURE IS TOO HIGH, SUSPEND PLANTING OPERATIONS UNTIL THE SOIL MOISTURE

DRAINS TO BELOW FIELD CAPACITY. 2. VOLUMETRIC SOIL MOISTURE LEVEL SHALL BE ABOVE PERMANENT WILTING POINT AND

SOIL TYPE	PERMANENT WILT POINT	FIELD CAPACITY
SAND, LOAMY SAND, SANDY LOAM	5-8%	12-18%
LOAM, SANDY CLAY, SANDY CLAY LOAM	14-25%	27-36%
CLAY LOAM, SILT LOAM	11-22%	31-36%
SILTY CLAY, SILTY CLAY LOAM	22-27%	38-41%

## F. INSTALLATION OF PLANTS: GENERAL

MEET THE QUALITY STANDARDS.

1. THE CONTRACTOR SHALL OBSERVE EACH PLANT AFTER DELIVERY AND PRIOR TO INSTALLATION FOR DAMAGE OR OTHER CHARACTERISTICS THAT MAY CAUSE REJECTION. 2. THE CONTRACTOR SHALL NOT DISTRIBUTE MORE PLANTS THAN CAN BE PLANTED AND

WATERED ON THE SAME DAY. 3. THE CONTRACTOR SHALL OBSERVE THE ROOT SYSTEM OF EACH PLANT, REGARDLESS OF ROOT BALL PACKAGE TYPE AT THE TIME OF PLANTING TO CONFIRM THAT THE ROOTS MEET THE REQUIREMENTS FOR PLANT ROOT QUALITY PER THESE LANDSCAPE ARCHITECTURAL NOTES AND DETAILS. THE CONTRACTOR SHALL UNDERTAKE, AT THE TIME OF PLANTING, ALL MODIFICATIONS TO THE ROOT SYSTEM REQUIRED BY THE LANDSCAPE ARCHITECT OR CONSULTING ARBORIST TO

--- CONTINUES ON SHEET LP-03 ---

REVISIONS NO. DATE

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SOIL AND LANDSCAPE MATERIAL NOTES

MICANOPY AREA COOPERATIVE SCHOOL INC MICANOPY, FL

MACS PRE-K BUILDING EXPANSION

LP-02

**MAY 2025** 

0802-24-001

## SUPPLEMENTAL LANDSCAPE ARCHITECT NOTES FOR SOIL AMENDMENTS AND LANDSCAPE INSTALLATION (CONTINUED):

### F. INSTALLATION OF PLANTS: GENERAL

REASONABLY RADIAL TO THE TRUNK.

a. MODIFICATIONS, AT THE TIME OF PLANTING, TO MEET THE SPECIFICATIONS FOR THE DEPTH H. GROUND COVER, PERENNIAL AND ANNUAL PLANTS OF THE ROOT COLLAR AND REMOVAL OF STEM GIRDLING ROOTS AND CIRCLING ROOTS MAY MAKE THE PLANT UNSTABLE OR STRESS THE PLANT TO THE POINT THAT THE LANDSCAPE

ARCHITECT MAY CHOOSE TO REJECT THE PLANT RATHER THAN PERMITTING THE MODIFICATION. b. MODIFICATIONS TO MAKE THE ROOT SYSTEM CONFORM TO THE PLANT QUALITY STANDARDS OR OTHER REQUIREMENTS RELATED TO THE PERMITTED ROOT BALL PACKAGE, SHALL

 $\square$  c. ROOT BALLS SHALL NOT BE ALTERED TO FIT AROUND UTILITY LINES OR OTHER BELOW GRADE FEATURES. SUBMIT A NOTIFICATION TO THE LANDSCAPE ARCHITECT OF ANY CONFLICTS

NOT BE CONSIDERED AS GROUNDS TO MODIFY OR VOID ANY PLANT WARRANTY.

ENCOUNTERED IMMEDIATELY IN VIA TELEPHONE AND EMAIL WITH PHOTO. d. THE RESULTING ROOT BALL MAY NEED ADDITIONAL STAKING AND WATER AFTER PLANTING.

THE TREE UNSTABLE OR IF THE TREE IS UNHEALTHY. e. THE CONTRACTOR REMAINS RESPONSIBLE TO CONFIRM THAT THE GROWER HAS MADE ALL REQUIRED ROOT MODIFICATIONS NOTED DURING ANY NURSERY OBSERVATIONS.

THE LANDSCAPE ARCHITECT MAY REJECT THE PLANT IF THE ROOT MODIFICATION PROCESS MAKES

4. CONTAINER AND BOXED ROOT BALL SHAVING: THE OUTER SURFACES OF ALL PLANTS IN CONTAINERS AND BOXES, INCLUDING THE TOP, SIDES AND BOTTOM OF THE ROOT BALL SHALL BE SHAVED TO REMOVE ALL CIRCLING, DESCENDING, AND MATTED ROOTS. SHAVING SHALL BE PERFORMED USING SAWS, KNIVES, SHARP SHOVELS OR OTHER SUITABLE EQUIPMENT THAT IS

CAPABLE OF MAKING CLEAN CUTS ON THE ROOTS. a. SHAVING SHALL REMOVE A MINIMUM OF ONE INCH (1") OF ROOT MAT OR UP TO TWO INCHES (2") AS REQUIRED TO REMOVE ALL ROOT SEGMENTS THAT ARE NOT GROWING

5. EXPOSED STEM TISSUE AFTER MODIFICATION: THE REQUIRED ROOT BALL MODIFICATIONS MAY RESULT IN STEM TISSUE THAT HAS NOT FORMED TRUNK BARK BEING EXPOSED ABOVE THE SOIL LINE. IF SUCH CONDITION OCCURS, WRAP THE EXPOSED PORTION OF THE STEM IN A PROTECTIVE WRAPPING WITH A WHITE FILTER FABRIC. SECURE THE FABRIC WITH BIODEGRADABLE MASKING TAPE. DO NOT USE STRING, TWINE, GREEN NURSERY TIES OR ANY OTHER MATERIAL

THAT MAY GIRDLE THE TRUNK IF NOT REMOVED. 6. EXCAVATION OF THE PLANTING SPACE: USING HAND TOOLS OR TRACKED MINI-EXCAVATOR EXCAVATE THE PLANTING HOLE INTO THE PLANTING SOIL TO THE DEPTH OF THE ROOT BALL MEASURED AFTER ANY ROOT BALL MODIFICATION TO CORRECT ROOT PROBLEMS, AND WIDE ENOUGH FOR WORKING ROOM AROUND THE ROOT BALL OR TO THE SIZE INDICATED ON THE

DRAWING OR AS NOTED BELOW. a. FOR TREES AND SHRUBS PLANTED IN SOIL AREAS THAT ARE NOT TILLED OR OTHERWISE MODIFIED TO A DEPTH OF AT LEAST TWELVE INCHES (12") OVER A DISTANCE OF MORE THAN TEN FEET (10') RADIUS FROM EACH TREE, OR FIVE FEET (5') RADIUS FROM EACH SHRUB, THE SOIL AROUND THE ROOT BALL SHALL BE LOOSENED AS DEFINED BELOW OR AS INDICATED ON THE

LANDSCAPE ARCHITECTURAL DETAIL DRAWINGS. 1) THE AREA OF LOOSENING SHALL BE A MINIMUM OF THREE (3) TIMES THE DIAMETER OF THE ROOT BALL AT THE SURFACE SLOPING TO TWO (2) TIMES THE DIAMETER OF THE ROOT BALL

2) LOOSENING IS DEFINED AS DIGGING INTO THE SOIL AND TURNING THE SOIL TO REDUCE THE COMPACTION. THE SOIL DOES NOT HAVE TO BE REMOVED FROM THE HOLE, JUST DUG, LIFTED AND TURNED. LIFTING AND TURNING MAY BE ACCOMPLISHED WITH A TRACKED MINI

EXCAVATOR, OR HAND SHOVELS. b. IF AN AUGER IS USED TO DIG THE INITIAL PLANTING HOLE, THE SOIL AROUND THE AUGER HOLE SHALL BE LOOSENED AS DEFINED ABOVE FOR TREES AND SHRUBS PLANTED IN SOIL AREAS

THAT ARE NOT TILLED OR OTHERWISE MODIFIED. c. THE MEASURING POINT FOR ROOT BALL DEPTH SHALL BE THE AVERAGE HEIGHT OF THE

OUTER EDGE OF THE ROOT BALL AFTER ANY REQUIRED ROOT BALL MODIFICATION. d. IF MOTORIZED EQUIPMENT IS USED TO DELIVER PLANTS TO THE PLANTING AREA OVER EXPOSED PLANTING BEDS OR USED TO LOOSEN THE SOIL OR DIG THE PLANTING HOLES, ALL SOIL

THAT HAS BEEN DRIVEN OVER SHALL BE TILLED TO A DEPTH OF SIX INCHES (6"). 7. FOR TREES TO BE PLANTED IN PREPARED PLANTING SOIL THAT IS DEEPER THAN THE ROOT BALL DEPTH, COMPACT THE SOIL UNDER THE ROOT BALL USING A MECHANICAL TAMPER TO ASSURE A FIRM BEDDING FOR THE ROOT BALL. IF THERE IS MORE THAN TWELVE INCHES (12") OF PLANTING SOIL UNDER THE ROOT BALL EXCAVATE AND TAMP THE PLANTING SOIL IN LIFTS NOT TO EXCEED TWELVE INCHES (12").

8. SET TOP OUTER EDGE OF THE ROOT BALL AT THE AVERAGE ELEVATION OF THE PROPOSED FINISH. SET THE PLANT PLUMB AND UPRIGHT IN THE CENTER OF THE PLANTING HOLE. THE TREE GRAFT, IF APPLICABLE, SHALL BE VISIBLE ABOVE THE GRADE. DO NOT PLACE SOIL ON TOP OF THE

ROOT BALL. 9. BACKFILL THE SPACE AROUND THE ROOT BALL WITH THE SAME PLANTING SOIL OR EXISTING SOIL THAT WAS EXCAVATED FOR THE PLANTING SPACE. SEE NOTES ON SOIL AMENDMENTS FOR REQUIREMENTS TO MODIFY THE SOIL WITHIN THE PLANTING BED

10. BRACE ROOT BALL BY TAMPING PLANTING SOIL AROUND THE LOWER PORTION OF THE ROOT BALL. PLACE ADDITIONAL PLANTING SOIL AROUND THE BASE AND SIDES OF BALL IN SIX-INCH (6") LIFTS. LIGHTLY TAMP EACH LIFT USING FOOT PRESSURE OR HAND TOOLS TO SETTLE BACKFILL, SUPPORT THE TREE AND ELIMINATE VOIDS. DO NOT OVER COMPACT THE BACKFILL OR USE MECHANICAL OR PNEUMATIC TAMPING EQUIPMENT. OVER COMPACTION SHALL BE DEFINED AS GREATER THAN EIGHTY-FIVE PERCENT (85%) OF MAXIMUM DRY DENSITY, STANDARD PROCTOR OR GREATER THAN TWO-HUNDRED AND FIFTY (250) PSI AS MEASURED BY A CONE

PENETROMETER WHEN THE VOLUMETRIC SOIL MOISTURE IS LOWER THAN FIELD CAPACITY a. WHEN THE PLANTING HOLE HAS BEEN BACKFILLED TO THREE QUARTERS OF ITS DEPTH, WATER SHALL BE POURED AROUND THE ROOT BALL AND ALLOWED TO SOAK INTO THE SOIL TO SETTLE THE SOIL. DO NOT FLOOD THE PLANTING SPACE. IF THE SOIL IS ABOVE FIELD CAPACITY, ALLOW THE SOIL TO DRAIN TO BELOW FIELD CAPACITY BEFORE FINISHING THE PLANTING. AIR POCKETS SHALL BE ELIMINATED AND BACKFILL CONTINUED UNTIL THE PLANTING SOIL IS BROUGHT TO GRADE LEVEL.

11. WHERE INDICATED ON THE DRAWINGS, BUILD A FOUR INCH (4") HIGH, LEVEL BERM OF PLANTING SOIL AROUND THE OUTSIDE OF THE ROOT BALL TO RETAIN WATER. TAMP THE BERM TO REDUCE LEAKING AND EROSION OF THE SAUCER.

12. THOROUGHLY WATER THE PLANTING SOIL AND ROOT BALL IMMEDIATELY AFTER PLANTING 13. REMOVE ANY CORRUGATED CARDBOARD TRUNK PROTECTION AFTER PLANTING. 14. FOLLOW ADDITIONAL REQUIREMENTS FOR THE PERMITTED ROOT BALL PACKAGES.

## G. PERMITTED ROOT BALL PACKAGES AND SPECIAL PLANTING REQUIREMENTS

1. BALLED AND BURLAPPED PLANTS

a. AFTER THE ROOT BALL HAS BEEN BACKFILLED, REMOVE ALL TWINE AND BURLAP FROM THE TOP OF THE ROOT BALL. CUT THE BURLAP AWAY; DO NOT FOLD DOWN ONTO THE PLANTING SOIL b. IF THE PLANT IS SHIPPED WITH A WIRE BASKET THAT DOES NOT MEET THE REQUIREMENTS OF A "LOW RISE" BASKET, REMOVE THE TOP SIX TO EIGHT INCHES (6" TO 8") OF THE BASKET WIRES JUST BEFORE THE FINAL BACKFILLING OF THE TREE.

c. EARTH ROOT BALLS SHALL BE KEPT INTACT EXCEPT FOR ANY MODIFICATIONS REQUIRED BY

THE LANDSCAPE ARCHITECT OR CONSULTING ARBORIST. 2. CONTAINER (INCLUDES BOXED AND ABOVE-GROUND FABRIC CONTAINERS) PLANTS a. THIS SPECIFICATION ASSUMES THAT MOST CONTAINER PLANTS HAVE SIGNIFICANT STEM

b. REMOVE THE CONTAINER. c. PERFORM ROOT BALL SHAVING AS DEFINED IN INSTALLATION OF PLANTS.

GIRDLING AND CIRCLING ROOTS, AND THAT THE ROOT COLLAR IS TOO LOW IN THE ROOT BALL.

d. REMOVE ALL ROOTS AND SUBSTRATE ABOVE THE ROOT COLLAR AND THE MAIN STRUCTURAL ROOTS ACCORDING TO ROOT CORRECTION DETAILS SO ROOT SYSTEM CONFORMS

TO ROOT OBSERVATIONS DETAIL.

e. REMOVE ALL SUBSTRATE AT THE BOTTOM OF THE ROOT BALL THAT DOES NOT CONTAIN f. USING A HOSE, POWER WASHER OR AIR EXCAVATION DEVICE, WASH OUT THE SUBSTRATE

FROM AROUND THE TRUNK AND TOP OF THE REMAINING ROOT BALL AND FIND AND REMOVE ALL STEM GIRDLING ROOTS WITHIN THE ROOT BALL ABOVE THE TOP OF THE STRUCTURAL ROOTS.

1. ENSURE THAT SOIL MOISTURE IS WITHIN THE REQUIRED LEVELS PRIOR TO PLANTING. IRRIGATION, IF REQUIRED, SHALL BE APPLIED AT LEAST TWELVE (12) HOURS PRIOR TO PLANTING TO AVOID PLANTING IN MUDDY SOILS.

2. ENSURE THAT SOIL GRADES IN THE BEDS ARE SMOOTH AND AS SHOWN ON THE PLANS. 3. PLANTS SHALL BE PLANTED IN EVEN, TRIANGULARLY SPACED ROWS, AT THE INTERVALS CALLED OUT FOR ON THE DRAWINGS, UNLESS OTHERWISE NOTED. THE FIRST ROW OF ANNUAL FLOWER PLANTS SHALL BE 6 INCHES (6") FROM THE BED EDGE UNLESS OTHERWISE DIRECTED. 4. DIG PLANTING HOLES SUFFICIENTLY LARGE ENOUGH TO INSERT THE ROOT SYSTEM WITHOUT DEFORMING THE ROOTS. SET THE TOP OF THE ROOT SYSTEM AT THE GRADE OF THE SOIL

SCHEDULE THE PLANTING TO OCCUR PRIOR TO APPLICATION OF THE MULCH. a. IF THE BED IS ALREADY MULCHED, PULL THE MULCH FROM AROUND THE HOLE AND PLANT INTO THE SOIL. DO NOT PLANT THE ROOT SYSTEM IN THE MULCH. PULL MULCH BACK SO IT IS NOT

ON THE ROOT BALL SURFACE 6. PRESS SOIL TO BRING THE ROOT SYSTEM IN CONTACT WITH THE SOIL.

7. SPREAD ANY EXCESS SOIL AROUND IN THE SPACES BETWEEN PLANTS.

8. APPLY MULCH TO THE BED BEING SURE NOT TO COVER THE TOPS OF THE PLANTS WITH OR THE TOPS OF THE ROOT BALL WITH MULCH. 9. WATER EACH PLANTING AREA AS SOON AS THE PLANTING IS COMPLETED. APPLY ADDITIONAL WATER TO KEEP THE SOIL MOISTURE AT THE REQUIRED LEVELS. DO NOT OVER WATER.

## 1. PALM TREES SHALL BE PLACED AT GRADE MAKING SURE NOT TO PLANT THE TREE ANY DEEPER

IN THE GROUND THAN THE PALM TREES ORIGINALLY STOOD. 2. THE TREES SHALL BE PLACED WITH THEIR VERTICAL AXIS IN A PLUMB POSITION. 3. ALL BACKFILL SHALL BE NATIVE SOIL EXCEPT IN CASES WHERE PLANTING IN ROCK.

WATER-SETTLE THE BACK FILL. 4. DO NOT COVER ROOT BALL WITH MULCH OR TOPSOIL.

5. PROVIDE A WATERING BERM AT EACH PALM. a. BERMS SHALL EXTEND A MINIMUM OF EIGHTEEN INCHES (18") OUT FROM THE TRUNK ALL

AROUND AND SHALL BE A MINIMUM OF SIX INCHES (6") HIGH. 6. REMOVE TWINE WHICH TIES FRONDS TOGETHER AFTER PLACING PALM IN PLANTING HOLE AND SECURING IT IN THE UPRIGHT POSITION.

### J. TREE STAPLING, STAKING, GUYING, AND BARK PROTECTION

1. DO NOT STAKE OR GUY TREES UNLESS THE CONTRACTOR FEELS THAT STAKING IS THE ONLY ALTERNATIVE WAY TO KEEP PARTICULAR TREES PLUMB.

a. THE LANDSCAPE ARCHITECT AND CONSULTING ARBORIST SHALL HAVE THE AUTHORITY TO REQUIRE TREES ARE STAPLED, STAKED, OR TO REJECT STAKING AS AN ALTERNATIVE WAY TO

b. TREES THAT REQUIRED HEAVILY MODIFIED ROOT BALLS TO MEET THE ROOT QUALITY STANDARDS MAY BECOME UNSTABLE. 1) THE LANDSCAPE ARCHITECT MAY CHOOSE TO REJECT THESE TREES RATHER THAN

UTILIZE STAKING TO TEMPORARILY SUPPORT THE TREE. 2. TREES THAT ARE GUYED SHALL HAVE THEIR GUYS AND STAKES REMOVED AFTER ONE FULL GROWING SEASON OR AT OTHER TIMES AS REQUIRED BY THE LANDSCAPE ARCHITECT.

 $\square$ a. THE CONTRACTOR SHALL SUBMIT A SCHEDULE TO THE OWNER AND LANDSCAPE

ARCHITECT FOR THE REMOVAL OF GUYS AND STAKES. b. TREE GUYING SHALL UTILIZE THE TREE STAKING AND GUYING MATERIALS SPECIFIED. GUYING TO BE TIED IN SUCH A MANNER AS TO CREATE A MINIMUM TWELVE INCH (12") LOOP TO PREVENT GIRDLING.

c. PLANTS SHALL STAND PLUMB AFTER STAPLING, STAKING, OR GUYING UNLESS OTHERWISE SPECIFIED IN THESE DETAIL AND PLAN DRAWINGS.

d. FOR TREES PLANTED IN PLANTING MIX OVER WATERPROOFED MEMBRANE, USE DEAD MEN BURIED TWENTY-FOUR INCHES (24") TO THE TOP OF THE DEAD MAN, IN THE SOIL. TIE THE GUY TO THE DEAD MAN WITH A DOUBLE WRAP OF LINE AROUND THE DEAD MAN FOLLOWED BY A DOUBLE HALF HITCH. WHEN GUYS ARE REMOVED, LEAVE THE DEAD MEN IN PLACE AND CUT THE GUY TAPE TWELVE INCHES (12") ABOVE THE GROUND, LEAVING THE TAPE END COVERED IN

e. STRAIGHTEN ALL TREES THAT MOVE OUT OF PLUMB INCLUDING THOSE NOT STAKED. PLANTS TO BE STRAIGHTENED SHALL BE EXCAVATED AND THE ROOT BALL MOVED TO A PLUMB POSITION, AND THEN RE-BACKFILLED.

f. DO NOT STRAIGHTEN PLANTS BY PULLING THE TRUNK WITH GUYS.

3. TREE BARK PROTECTORS SHALL INDICTED, AS NECESSARY, ON THESE DETAIL AND PLAN DRAWINGS.

## K. INSTALLATION OF FERTILIZER AND OTHER CHEMICAL ADDITIVES

1. DO NOT APPLY ANY SOLUBLE FERTILIZER TO PLANTINGS DURING THE FIRST YEAR AFTER TRANSPLANTING UNLESS SOIL TEST DETERMINES THAT FERTILIZER OR OTHER CHEMICAL ADDITIVES IS REQUIRED. APPLY CHEMICAL ADDITIVES ONLY UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT OR A CONSULTING ARBORIST

2. THE CONTRACTOR SHALL APPLY CONTROLLED RELEASE FERTILIZERS ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS AND STANDARD HORTICULTURAL PRACTICES.

## L. PRUNING OF TREES AND SHRUBS

1. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS, AND THE CONTRACTOR SHALL CLEAN TOOLS, AFTER EVERY USE, IF NECESSARY, TO PREVENT THE SPREAD OF DISEASE BETWEEN TREES AND PLANTS.2. PRUNING TREES SHALL BE LIMITED TO ADDRESSING STRUCTURAL DEFECTS AS SHOWN IN LANDSCAPE ARCHITECTURAL DETAILS AND DRAWINGS.

a. ALL PRUNING SHALL BE PERFORMED BY A PERSON EXPERIENCED IN STRUCTURAL TREE PRUNING.

b. EXCEPT FOR PLANTS SPECIFIED AS MULTI-STEMMED OR AS OTHERWISE INSTRUCTED BY THE LANDSCAPE ARCHITECT, PRESERVE OR CREATE A CENTRAL LEADER

c. PRUNING OF LARGE TREES SHALL BE DONE USING POLE PRUNERS OR IF NEEDED, FROM A LADDER OR HYDRAULIC LIFT TO GAIN ACCESS TO THE TOP OF THE TREE. DO NOT CLIMB IN NEWLY PLANTED TREES. SMALL TREES CAN BE STRUCTURALLY PRUNED BY LAYING THEM OVER BEFORE PLANTING. PRUNING MAY ALSO BE PERFORMED AT THE NURSERY PRIOR TO SHIPPING.

d. REMOVE AND REPLACE EXCESSIVELY PRUNED OR MALFORMED STOCK RESULTING FROM IMPROPER PRUNING THAT OCCURRED IN THE NURSERY OR AFTER. 3. NO TREE PAINT OR SEALANTS SHALL BE USED.

## M. MULCHING OF PLANTS

1. APPLY THREE INCHES (3") OF MULCH OR PINE STRAW BEFORE SETTLEMENT, COVERING THE ENTIRE PLANTING BED AREA.

a. INSTALL NO MORE THAN ONE INCH (1") OF MULCH OVER THE TOP OF THE ROOT BALLS OF ALL PLANTS. TAPER TO TWO INCHES (2") WHEN ABUTTING PAVEMENT. 2. FOR TREES PLANTED IN LAWN AREAS THE MULCH SHALL EXTEND TO A FOUR FOOT (4') RADIUS

AROUND THE TREE OR TO THE EXTENT INDICATED ON THESE DETAIL AND PLAN DRAWINGS. 3. LIFT ALL LEAVES, LOW HANGING STEMS AND OTHER GREEN PORTIONS OF SMALL PLANTS OUT OF THE MULCH IF COVERED.

## N. PLANTING BED FINISHING

1. AFTER PLANTING, SMOOTH OUT ALL GRADES BETWEEN PLANTS BEFORE MULCHING.

2. SEPARATE THE EDGES OF PLANTING BEDS AND LAWN AREAS WITH A SMOOTH, FORMED EDGE CUT INTO THE TURF WITH THE BED MULCH LEVEL SLIGHTLY LOWER, ONE AND TWO INCHES (1" AND 2"), THAN THE ADJACENT TURF SOD OR AS DIRECTED BY THE LANDSCAPE ARCHITECT. 3. BED EDGE LINES SHALL BE DEPICTED ON THE LANDSCAPE ARCHITECTURAL DETAILS AND DRAWINGS.

1. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE TO ENSURE THAT ADEQUATE WATER IS PROVIDED TO ALL PLANTS FROM THE POINT OF INSTALLATION UNTIL THE DATE OF SUBSTANTIAL COMPLETION ACCEPTANCE. THE CONTRACTOR SHALL ADJUST THE AUTOMATIC IRRIGATION SYSTEM, IF AVAILABLE, AND APPLY ADDITIONAL OR ADJUST FOR LESS WATER USING HOSES, SLOW-RELEASE WATERING BAGS, ETC. AS REQUIRED.

2. DAILY TEST THE MOISTURE CONTENT IN EACH ROOT BALL AND THE SOIL OUTSIDE THE ROOT BALL TO DETERMINE THE WATER CONTENT. 3. HAND WATER ROOT BALLS OF ALL PLANTS TO ASSURE THAT THE ROOT BALLS HAVE MOISTURE

ABOVE WILT POINT AND BELOW FIELD CAPACITY.

1. DURING INSTALLATION, KEEP THE SITE FREE OF TRASH, PAVEMENTS REASONABLY CLEAN AND WORK AREA IN AN ORDERLY CONDITION AT THE END OF EACH DAY. REMOVE TRASH AND DEBRIS IN CONTAINERS FROM THE SITE NO LESS THAN ONCE A WEEK

a. IMMEDIATELY CLEAN UP ANY SPILLED OR TRACKED SOIL, FUEL, OIL, TRASH OR DEBRIS DEPOSITED BY THE CONTRACTOR FROM ALL SURFACES WITHIN THE PROJECT OR ON PUBLIC RIGHT OF WAYS AND NEIGHBORING PROPERTY.

2. ONCE INSTALLATION IS COMPLETE, WASH ALL SOIL FROM PAVEMENTS AND OTHER STRUCTURES. ENSURE THAT MULCH IS CONFINED TO PLANTING BEDS AND THAT ALL TAGS AND FLAGGING TAPE ARE REMOVED FROM THE SITE. THE LANDSCAPE ARCHITECT'S SEALS ARE TO REMAIN ON THE TREES AND REMOVED AT THE END OF ANY APPLICABLE WARRANTY PERIOD. 3. MAKE ALL REPAIRS TO GRADES, RUTS, AND DAMAGE BY THE PLANT INSTALLER TO THE WORK OR OTHER WORK AT THE SITE. D. REMOVE AND DISPOSE OF ALL EXCESS PLANTING SOIL, SUBSOIL, MULCH, PLANTS, PACKAGING, AND OTHER MATERIAL BROUGHT TO THE SITE BY THE

### Q. PLANT MAINTENANCE PRIOR TO SUBSTANTIAL COMPLETION ACCEPTANCE 1. DURING THE PROJECT WORK PERIOD AND PRIOR TO SUBSTANTIAL COMPLETION ACCEPTANCE,

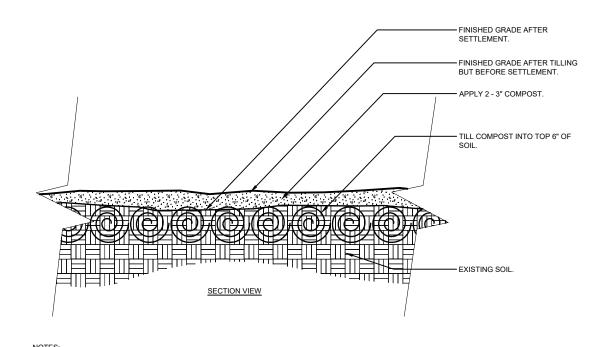
THE CONTRACTOR SHALL MAINTAIN ALL PLANTS. 2. MAINTENANCE DURING THE PERIOD PRIOR TO SUBSTANTIAL COMPLETION ACCEPTANCE SHALL CONSIST OF PRUNING, WATERING, CULTIVATING, WEEDING, MULCHING, REMOVAL OF DEAD MATERIAL, REPAIRING AND REPLACING OF TREE STAPLES AND/OR STAKES, TIGHTENING AND REPAIRING OF GUYS, REPAIRING AND REPLACING OF DAMAGED TREE WRAP MATERIAL, RESETTING PLANTS TO PROPER GRADES AND UPRIGHT POSITION, AND FURNISHING AND APPLYING SUCH SPRAYS AS ARE NECESSARY TO KEEP PLANTINGS REASONABLY FREE OF DAMAGING INSECTS AND DISEASE, AND IN HEALTHY CONDITION.

a. THE THRESHOLD FOR APPLYING INSECTICIDES AND HERBICIDE SHALL FOLLOW ESTABLISHED INTEGRATED PEST MANAGEMENT (IPM) PROCEDURES.

b. MULCH AREAS SHALL BE KEPT REASONABLY FREE OF WEEDS, GRASS.

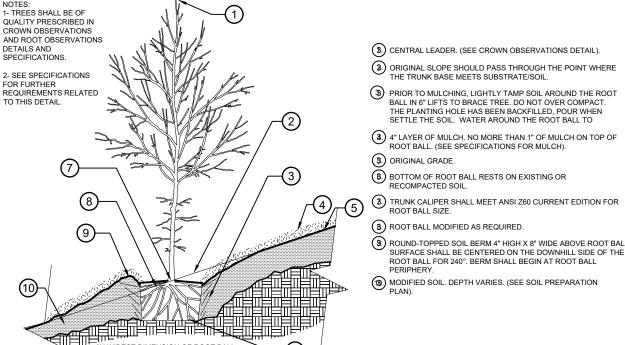
☐ DENOTES GUIDELINES FOR CONTRACTOR SUBMITTAL TO LANDSCAPE ARCHITECT.

--- END OF SOIL AMENDMENT AND LANDSCAPE INSTALLATION NOTES - - -

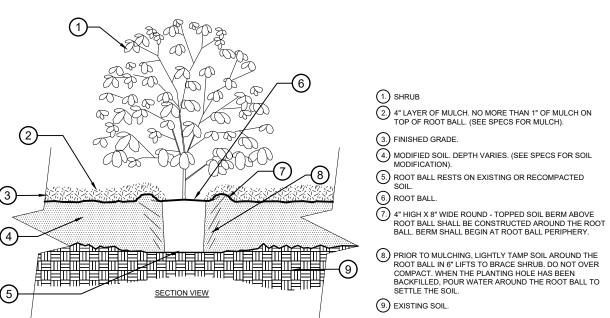


MODIFIED EXISTING SOIL - COMPACTED SURFACE SOIL

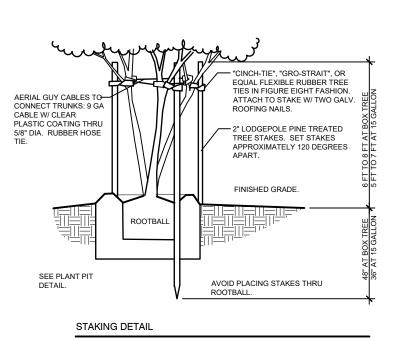
1- SEE PLANTING SOIL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS



TREE ON SLOPE - UNMODIFIED SOIL SLOPE 5% (20:1) TO 50% (2:1)



1- SHRUBS SHALL BE OF QUALITY PRESCRIBED IN THE ROOT OBSERVATIONS DETAIL AND SPECIFICATIONS 2- SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS RELATED TO THIS DETAIL



12" AT 1 GALLON SHRUB, NO WATER WELL AT PLANT TABLETS AS NOTED OR 2.) SET ROOT BALL CROWN 7.) BACKFILL MIX, SEE NOTES AND

(4.) MULCH TO 2" DEPTH AT WATER

TREE W/ BERM (EXISTING SOIL NOT MODIFIED)

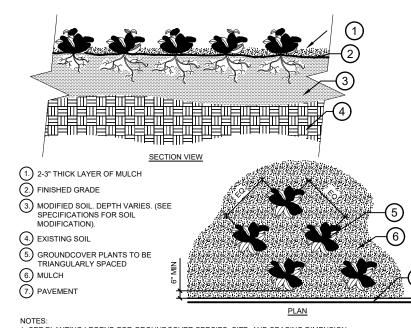
OBSERVATIONS AND ROOT

2- SEE SPECIFICATIONS FOR

OPEN SOURCE FREE TO USE

BSERVATIONS DETAILS AND

SHRUB PLANTING



1- SEE PLANTING LEGEND FOR GROUNDCOVER SPECIES, SIZE, AND SPACING DIMENSIO 2- SMALL ROOTS (1/4" OR LESS) THAT GROW AROUND, UP, OR DOWN THE ROOT BALL PERIPHERY ARI CONSIDERED A NORMAL CONDITION IN CONTAINER PRODUCTION AND ARE ACCEPTABLE HOWEVER THEY SHOULD BE ELIMINATED AT THE TIME OF PLANTING. ROOTS ON THE PERIPHERY CAN BE REMOVED AT THE TIME OF PLANTING. (SEE ROOT BALL SHAVING CONTAINER DETAIL 3- SETTLE SOIL AROUND ROOT BALL OF EACH GROUNDCOVER PRIOR TO MULCHING

TREE PLANTING MULTI-STAKE



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# SOIL AND LANDSCAPE MATERIAL DETAILS

0802-24-001 SHEET NO:

(1.) CENTRAL LEADER. (SEE CROWN OBSERVATIONS

(2.) TRUNK CALIPER SHALL MEET ANSI Z60 CURRENT

ROUND-TOPPED SOIL BERM 4" HIGH X 8" WIDE ABOVE ROOT BALL SURFACE SHALL BE CONSTRUCTED AROUND THE ROOT ALL. BERM

AROUND THE ROOT BALL IN 6" LIFTS TO BRACE

WATER AROUND THE ROOT BALL TO SETTLE THE

ON TOP OF ROOT BALL. (SEE SPECIFICATIONS FOR

LOOSENED SOIL. DIG AND TURN THE SOIL TO REDUCE COMPACTION TO THE AREA AND DEPTH

9.) ORIGINAL GRADE

FINISHED GRADE

SHALL BEGIN AT ROOT BALL PERIPHERY.

(5.) ROOT BALL SURFACE SHALL BE POSITIONED TO BE ONE - QUARTER ABOVE FINISHED GRADE.

EDITION FOR ROOT BALL SIZE.

(3.) ROOT BALL MODIFIED AS REQUIRED.

CLIENT: MICANOPY AREA COOPERATIVE SCHOOL INC MICANOPY, FL

MACS PRE-K BUILDING EXPANSION

LP-03

**MAY 2025** 

REVISIONS NO. DATE

CIVIL ENGINEERING | LAND PLANNING

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