

LANDSCAPE NOTES:

DELIVERY, STORAGE AND HANDLING

- A. DELIVER MATERIALS IN SUCH A MANNER AS TO NOT DAMAGE OR DECREASE THE HEALTH AND VIGOR OF THE PLANT MATERIALS.
- B. STORE MATERIALS AWAY FROM DETRIMENTAL ELEMENTS. COORDINATE WITH GENERAL CONTRACTOR TO SECURE A SAFE STAGING AREA.
- C. HANDLE, LOAD, UNLOAD, AND TRANSPORT MATERIALS CAREFULLY TO AVOID DAMAGE.
- D. MAINTAIN AND PROTECT PLANT MATERIALS AS NECESSARY TO INSURE HEALTH AND VIGOR.

GUARANTEE

A. GUARANTEE PLANT MATERIALS AND LAWN AREAS FOR YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION. CONTRACTOR SHALL REPLACE PLANTS AND LAWNS THAT FAIL TO GROW PROPERLY WITH PLANTS AS ORIGINALLY SPECIFIED AT THE EARLIEST PRACTICAL DATE FOLLOWING PLANT FAILURE, WITHOUT ADDITIONAL CHARGES TO THE OWNER. REPLACEMENT MATERIALS WILL BE GUARANTEED FOR ONE YEAR FROM THE DATE OF REPLACEMENT. THE CONTRACTOR SHALL NOT BE RESPONSIBLE FOR REPLACING PLANTS WHICH ARE DAMAGED BY ABUSE OR IMPROPER MAINTENANCE BY OWNER, OR BY ACTS OF GOD OCCURRING AFTER ACCEPTANCE.

MATERIAL FOR STAKING

- A. STAKES FOR SUPPORTING TREES SHALL BE SOUND TIMBER, STRAIGHT, SIZED AS SHOWN IN PLANTING DETAILS AND OF SUFFICIENT LENGTH TO ADEQUATELY SUPPORT THE PLANT.
- B. DEADEN OR STAKES FOR ANCHORING STRAPS IN THE GROUND SHALL BE OF SIZE MATERIAL AND STRENGTH ADEQUATE TO HOLD STRAPS TIGHT AND MAINTAIN TREE FIRMLY IN AN UPRIGHT POSITION.

GUYS, STAKING AND MULCHING

- A. USE ARBORITE OR EQUIVALENT FOR ANY NEEDED STAKING TO ELIMINATE USE OF WIRE AND HOSE. STRAPS SHALL BE WIDE, SOFT, FLEXIBLE MATERIAL MANUFACTURED FOR THE PURPOSE OF TREE ANCHORING SUCH AS WOVEN POLYPROPYLENE WEBBING. ANY STAKING MATERIAL IS TO BE REMOVED AFTER THE FIRST GROWING SEASON.
- A. STAKE TREES TWO-INCH CALIBER AND OVER. SPACE THREE STRIPS EQUALLY ABOUT EACH TREE, ATTACHED AT APPROXIMATELY TWO-FIFTHS UP THE TRUNK. STRAPS SHOULD BE AT A 45-DEGREE ANGLE AND ANCHORED IN THE GROUND WITH STAKES. THESE STRAPS SHALL BE EQUALLY TIGHT.
- B. STAKE TREES LESS THAN TWO INCHES CALIBER WITH TWO OR THREE WOOD STAKES DRIVEN TWO FEET INTO THE GROUND WITH THE PORTION EXTENDING ABOVE AND APPROXIMATELY ONE-HALF OF THE TRUNK HEIGHT. STAKE ONE FOOT FROM TRUNK, FASTENED AT APPROXIMATELY TWO-FIFTHS OF TRUNK HEIGHT.
- C. PRIOR TO INSTALLING MULCH MATERIAL ALL PLANTING BEDS SHALL BE COVERED WITH LANDSCAPE FABRIC IN AN EFFORT TO REDUCE WEEDS. LANDSCAPE FABRIC SHOULD BE BREATHABLE AND ALLOW AIR, WATER AND NUTRIENTS TO PENETRATE THE SOIL. TWO TO THREE INCHES OF MULCH MATERIAL SHALL BE PLACED ON TOP OF THE LANDSCAPE FABRIC.
- D. MULCH ALL PLANTING BEDS AND OTHER AREAS DESIGNATED TO BE MULCHED (WITH THE EXCEPTION OF ANY ANNUAL, SEASONAL, COLOR OR PERENNIAL BEDS) WITH TWO TO THREE INCHES OF MULCH MATERIAL. IF RIVER ROCKS ARE USED, ROCKS SHALL BE BETWEEN 1" AND 3" IN SIZE. CONTRACTOR TO PROVIDE A MULCH MATERIAL SAMPLE TO OWNER PRIOR TO INSTALLATION FOR COLOR AND SIZE APPROVAL. ANY LANDSCAPE BEDS NOTED AS ANNUAL, SEASONAL COLOR AND/OR PERENNIAL BEDS SHALL BE MULCHED WITH SMALL SIZED PEA GRAVEL SUCH AS INDIANA PEA GRAVEL. CONTRACTOR TO PROVIDE A MATERIAL SAMPLE TO OWNER PRIOR TO INSTALLATION FOR COLOR AND SIZE APPROVAL. IF RIVER ROCKS ARE USED, ALL RIVER ROCKS SHALL BE RINSED CLEAN ON SITE PRIOR TO INSTALLATION IN PLANTING BEDS.

EXCAVATION FOR PLANTING TREES AND SHRUBS

- A. CIRCULAR PLANT PITS WITH VERTICAL SIDES SHALL BE DUG BY HAND OR MACHINE METHODS FOR PLANTING OF TREES AND SHRUBS.
- B. TREE PIT DIAMETERS SHALL BE A MINIMUM OF TWO FEET GREATER THAN THE SPREAD OF THE ROOT MASS.
- C. SHRUB PIT DIAMETER SHALL BE A MINIMUM OF ONE FOOT GREATER THAN THE SPREAD OF THE ROOT MASS.
- D. CONTRACTOR SHALL TEST EXCAVATED PLANT PITS TO SATISFY THAT SUFFICIENT DRAINAGE IS PRESENT FOR PROPER PLANT SURVIVAL.
- E. IF THE INDIVIDUAL PITS ARE ARRANGED IN A GROUP, THE AREA BETWEEN PITS SHALL BE FILLED TO THE REQUIRED GRADE WITH EXISTING SOIL AND MULCHED WITH MULCH MATERIAL THREE INCHES DEEP. PLANT BEDS SHALL BE NEATLY EDGED AND KEPT FREE OF WEEDS UNTIL THE WORK IS ACCEPTED.

TOPSOIL

A. TOPSOIL SHALL BE FERTILE, FRABLE, SANDY LOAM, AND SHALL BE NATURAL SURFACE SOIL OBTAINED FROM WELL DRAINING AREAS. TOPSOIL SHALL BE CHARACTERISTIC OF REPRESENTATIVE SOILS IN THE PROJECT VICINITY THAT PRODUCE HEAVY GROWTH OF CROPS, GRASS OR OTHER VEGETATION. TOPSOIL SHALL BE FREE OF SUBSOIL, BRUSH, ORGANIC LITTER, OBJECTIONABLE WEEDS, CLAY, CLOTS, STUMPS, ROOTS OR OTHER MATERIAL HARMFUL TO PLANT GROWTH OR HINDERANCE TO PLANTING OR MAINTENANCE OPERATIONS. SHOULD REGENERATIVE MATERIALS BE PRESENT IN THE SOIL, CONTRACTOR SHALL ERADICATE AND REMOVE SUCH GROWTH, BOTH SURFACE AND ROOT, WHICH MAY APPEAR IN THE IMPORTED MATERIAL WITHIN ONE YEAR FOLLOWING ACCEPTANCE OF THE WORK. TOPSOIL SHALL NOT BE HANDLED IN A FROZEN OR MUDDY CONDITION. THE ACIDITY RANGE SHALL BE BETWEEN 5.0 AND 7.0 INCLUSIVE.

FERTILIZER

- A. FERTILIZER FOR ALL TREES, SHRUBS AND GROUNDCOVERS SHALL BE SIA GREEN NURSERY SPECIAL OR EQUIVALENT AND DELIVERED TO THE SITE IN UNOPENED CONTAINERS.
 - B. FERTILIZER FOR GRASS SHALL BE SIA-GREEN FERTILIZER OR EQUIVALENT CONTAINING THE FOLLOWING PERCENTAGES BY WEIGHT:
 - 10% NITROGEN
 - 24% PHOSPHOROUS
 - 10% POTASH
- FERTILIZER SHALL BE UNIFORM IN COMPOSITION, DRY AND FREE FLOWING, AND SHALL LIST THE MANUFACTURER'S GUARANTEED ANALYSIS. FERTILIZER SHALL NOT HAVE BEEN EXPOSED TO WEATHER PRIOR TO DELIVERY TO THE SITE. AFTER DELIVERY UNTIL USED, IT SHALL BE COMPLETELY PROTECTED AT ALL TIMES. IT SHALL NOT BE STORED IN CONTACT WITH THE GROUND.

LANDSCAPE BED EDGING

A. ALL BEDS MULCHED WITH RIVER ROCK SHALL BE EDGED WHEN ADJACENT TO LAWN AREAS. EDGING SHALL BE ALUMINUM AND BLACK IN COLOR, PERMALOC ALUMINUM ALLOY BLACK ANODIZED EDGING OR EQUIVALENT.

DRAINAGE TEST

A. REPRESENTATIVE TREE AND SHRUB PITS FROM EACH PLANTING AREA SHALL BE FILLED WITH WATER. IF PERCOLATION IS LESS THAN 100 TWELVE-INCH AUGER TO A DEPTH OF FOUR FEET BELOW THE BOTTOM OF THE TREE PIT, RETEST THE PIT. IN CASE DRAINAGE IS STILL UNSATISFACTORY NOTIFY THE LANDSCAPE ARCHITECT, IN WRITING OF THE CONDITION BEFORE PLANTING TREES IN THE QUESTIONABLE AREAS. CONTRACTOR IS FULLY RESPONSIBLE FOR THE WARRANTY OF PLANTINGS.

B. GROUNDCOVER BEDS SHALL ALSO BE SPOT TESTED FOR DRAINAGE.

C. DISPOSE OF SUBSOIL REMOVED FROM LANDSCAPE EXCAVATIONS. DO NOT MIX WITH THE PLANTING SOIL. DO NOT USE AS BACKFILL OR USE TO CONSTRUCT SAUCERS AROUND PITS.

SETTING TREES, SHRUBS AND GROUNDCOVERS

- A. BALLED AND CONTAINER PLANTS SHALL BE PLACED FIRMLY UPON SCARIFIED SUB-GRADE AND BACKFILLED WITH PLANTING SOIL MIXTURE. REMOVE ALL WIRE, CARDS AND BURLAP FROM TOP OF ROOT BALL. HAND TAMP CAREFULLY AROUND AND UNDER BALL TO FILL ALL Voids. WATER DURING BACKFILLING. FORM SAUCER FROM PLANTING SOIL MIXTURE IN ORDER TO RETAIN WATER.
- B. GENTLY LOOSEN OUTER ROOTS OF CONTAINER GROWN PLANTS TO ENCOURAGE OUTWARD GROWTH.
- C. FERTILIZER SHALL BE THOROUGHLY MIXED AND SOAKED INTO THE TOP TWO INCHES OF SOIL FOR ALL PLANT PITS.

TREE TRANSPORTATION

A. THE CONTRACTOR SHALL BE RESPONSIBLE NOT ONLY FOR THE SAFE TRANSPORTATION OF THE PLANTS TO THE SITE BUT ALSO THEIR CONDITION UPON ARRIVAL. TREES WITH ABRASIONS OF THE BARK, SUNSCALDS, FRESH CUTS OR BREAKS OF LIMBS WHICH HAVE NOT COMPLETELY CALLOUSED WILL BE REJECTED. TREES WHICH HAVE BEEN DAMAGED DURING TRANSPORT WILL BE REPLACED BY CONTRACTOR AT NO ADDITIONAL COST. ALL PLANT UNIT COSTS WILL REFLECT ALL THE ABOVE LISTED SPECIFICATIONS.

PRUNING

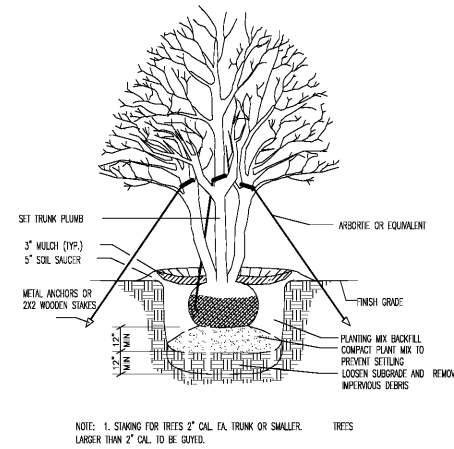
- A. DECIDUOUS TREES AND SHRUBS SHALL HAVE DEAD, BROKEN AND CROWDED WOOD PRUNED TO COMPENSATE FOR THE LOSS OF ROOTS IN TRANSPORTING. REQUESTED AND REQUIRED ADDITIONAL PRUNING MAY BE NECESSARY AT THE DIRECTION OF THE LANDSCAPE ARCHITECT.
- B. EVERGREEN TREES AND SHRUBS SHALL BE PRUNED ONLY TO THIN OUT HEAVY GROWTH.
- C. CUTS OVER 3/4 INCH IN DIAMETER SHALL BE PAINTED WITH TREE DRESSING PAINT. NO PAINT CONTAINING LEAD SHALL BE PERMITTED.

PREPARATION OF GRASS AREAS

- A. FINE GRADE ALL GRASS AREAS TO FINISH GRADE. ALL AREAS SHALL HAVE SMOOTH AND CONTINUAL GRADE BETWEEN THE EXISTING AND FIXED CONTROLS SUCH AS WALKS AND CURBS. ROLL, SCARIFY, RAKE AND LEVEL AS NECESSARY TO OBTAIN TRUE, EVEN AND FIRM LAWN SURFACES. ALL FINISHED GRADES SHALL MEET APPROVAL OF THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE BEFORE GRASSING OPERATIONS BEGIN.
- B. AREAS TO RECEIVE GRASS
 - I. TYPE OF TURF TO BE APPROVED BY OWNER.
 - II. CONTRACTOR TO BE RESPONSIBLE FOR FIELD VERIFICATION OF SOD AREAS TO CONFIRM SQUARE FOOTAGES.
 - III. GRADE WILL BE BROUGHT TO THE LEVEL OF +/- 1" OF THE FINISHED GRADE BY THE GENERAL CONTRACTOR. THE LANDSCAPE CONTRACTOR WILL BE RESPONSIBLE FOR THE TOP +/- 1" OF SOIL WORK. THIS IS TO INCLUDE ALL TOPSOIL HAULING AND PLACEMENT; SPREADING; DEBRIS REMOVAL AND ANY GRADING REQUIRED TO BRING THE FINISHED TOPSOIL GRADE TO THE PROPER LEVEL FOR GRASS.
 - IV. THOROUGHLY TILL EXISTING SOIL TO A MINIMUM DEPTH OF FOUR INCHES BY RUNNING TILLING DEVICE TWO DIRECTIONS AT RIGHT ANGLES OVER THE ENTIRE SURFACE TO BE GRASSED. FINE GRADE TO ACHIEVE UNIFORMITY AND DRAINAGE.
 - V. SPREAD SPECIFIED FERTILIZER AS PER MANUFACTURER'S RECOMMENDATIONS.
 - VI. WORK SOIL TO A UNIFORM GRADE SO THAT ALL AREAS HAVE POSITIVE DRAINAGE AWAY FROM DRIVES, BUILDINGS AND LANDSCAPED AREAS.
 - VII. CONTRACTOR TO COORDINATE WITH OWNER FOR TURF SELECTION PRIOR TO INSTALLATION.

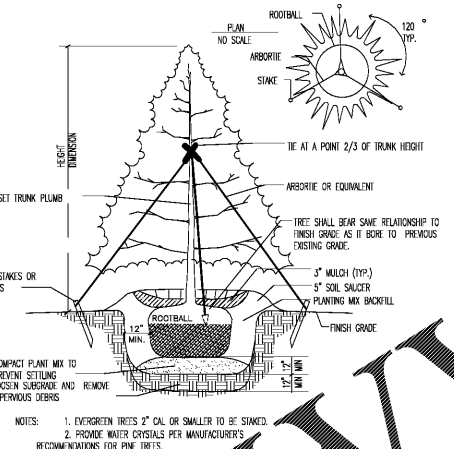
CLEANUP & PROTECTION

- A. DURING PLANTING OPERATIONS KEEP PROJECT SITE CLEAN AND ORDERLY.
- B. UPON COMPLETION OF WORK, CLEAR GROUNDS OF DEBRIS, SUPERFLUOUS MATERIALS AND ALL EQUIPMENT. REMOVE FROM SITE TO SATISFACTION OF THE LANDSCAPE ARCHITECT AND OWNER.
- C. PROTECT ALL WORK AND MATERIALS FROM DAMAGE DUE TO IRRIGATION OPERATIONS AND OPERATIONS BY OTHER CONTRACTORS, TRADES, AND TRESPASSERS. MAINTAIN PROTECTION UNTIL DATE OF SUBSTANTIAL COMPLETION.
- D. CONTRACTOR IS RESPONSIBLE FOR THEFT OF EQUIPMENT AND MATERIAL IN THE JOB BEFORE, DURING AND AFTER INSTALLATION, UNTIL DATE OF SUBSTANTIAL COMPLETION OF THE WORK MATERIAL.

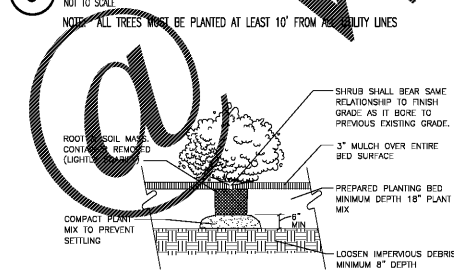


1. STAKING FOR TREES 2" O.C. EA. TRUNK OR SMALLER. TREES LARGER THAN 2" O.C. TO BE OBTG.

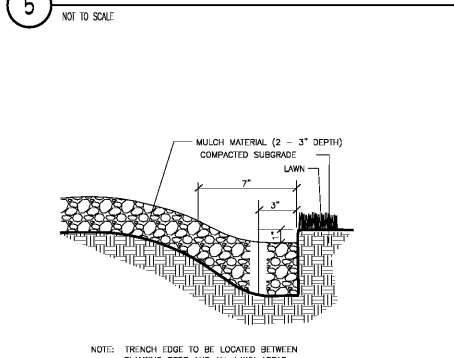
1. DETAIL MULTI-TRUNKED TREE PLANTING. NOT TO SCALE. NOTE: ALL TREES MUST BE PLANTED AT LEAST 10' FROM ALL UTILITY LINES.



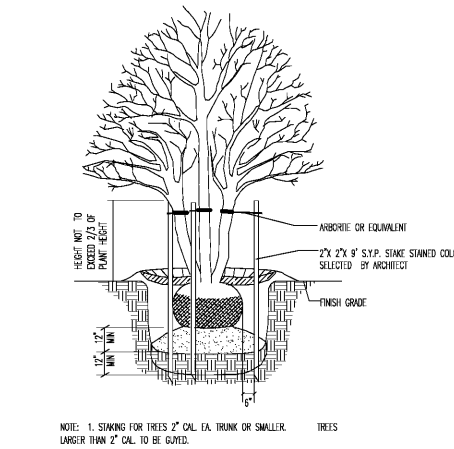
3. DETAIL EVERGREEN TREE PLANTING. NOT TO SCALE. NOTE: ALL TREES MUST BE PLANTED AT LEAST 10' FROM ALL UTILITY LINES.



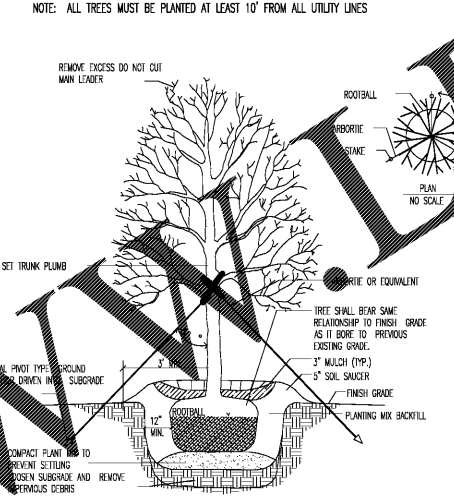
5. DETAIL TYPICAL FOR ALL PLANTS SPACED LESS THAN 36" O.C. NOT TO SCALE.



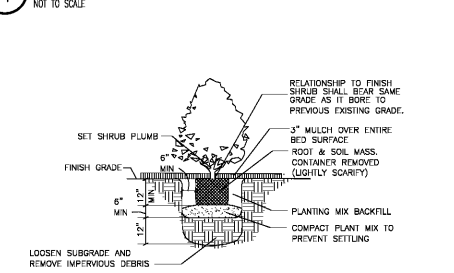
7. TRENCH EDGER DETAIL FOR ALL BEDS. NOT TO SCALE.



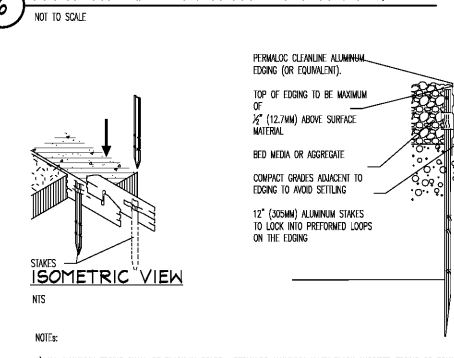
2. DETAIL MULTI-TRUNKED TREE STAKING. NOT TO SCALE. NOTE: ALL TREES MUST BE PLANTED AT LEAST 10' FROM ALL UTILITY LINES.



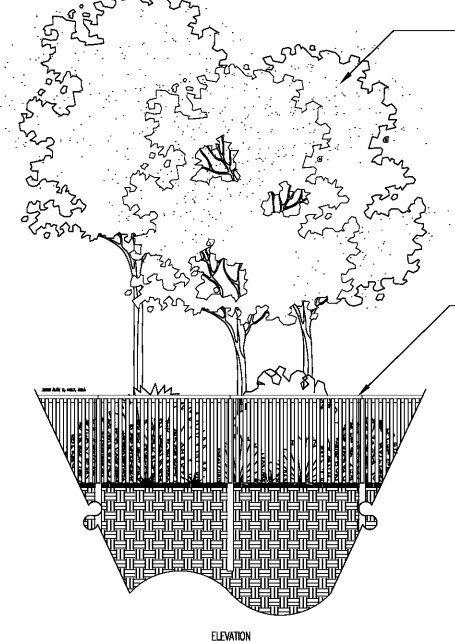
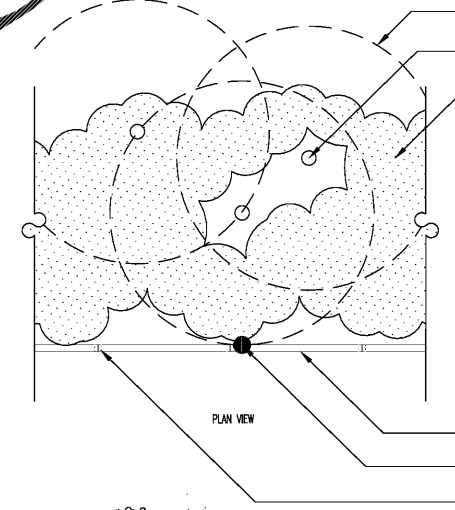
4. DETAIL TYPICAL TREE PLANTING AND GUYING. NOT TO SCALE.



6. DETAIL TYPICAL CONTAINERIZED SHRUB PLANTING. NOT TO SCALE.



9. ALUMINUM LANDSCAPE BED EDGING. NOT TO SCALE.



9. EXISTING VEGETATION PROTECTION. SCALE: NOT TO SCALE.

GENERAL NOTES:
 1. THE PROTECTED AREA SHALL REMAIN CLEAR OF ALL CONSTRUCTION EQUIPMENT, MATERIALS, AND PERSONNEL TO PREVENT ANY FURTHER DISTURBANCES TO THE ROOT ZONE OR DAMAGE TO THE TREE ITSELF. ONLY ACTIVITIES PROMOTING NECESSARY CARE AND MAINTENANCE TO THE TREE SHALL TAKE PLACE WITHIN THE PROTECTED AREA.
 2. ANY DAMAGED LIMBS IN THE CROWN OF THE TREE SHALL BE CLEANLY REMOVED AS NECESSARY.

FENCE LOCATION NOTES:
 1. ERECT FENCING AS INDICATED ON PLAN.
 2. WHEN NECESSARY, FIELD ADJUST FENCING TO PROVIDE A MINIMUM 10' SEPARATION FROM THE CENTRAL LEADER OF ALL EXISTING TREES. IF THE DRUPLINE OF THE TREE IS LESS THAN 10' FROM THE CENTRAL LEADER, THE FENCE MAY BE LOCATED TANGENT TO THE DRUPLINE RADIUS. (SEE PLAN VIEW)

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NOVEMBER 8, 2018
 THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY JAMES D. NEFF, PE, ON THE DATE ADJACENT TO THE SEAL.
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STATE OF FLORIDA
 AUTHORIZATION NUMBER
 8370
 PLANS PREPARED BY INGENIUM ENTERPRISES FORMERLY GRIMAL CRAWFORD

PANDA EXPRESS/CFT PLAZA
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 GULF BREEZE, FLORIDA

PLANS FOR

 CLIENT:
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NO.	DESCRIPTION	DATE

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PROJ. #	170056
DRWG. NAME	170056 LANDING
ISSUE DATE	11/2/2018
PROJ. MGR.	EF
LANDSCAPE NOTES & DETAILS	
LOI.1	
SHEET NUMBER	

Order Plans

FOR BIDDING