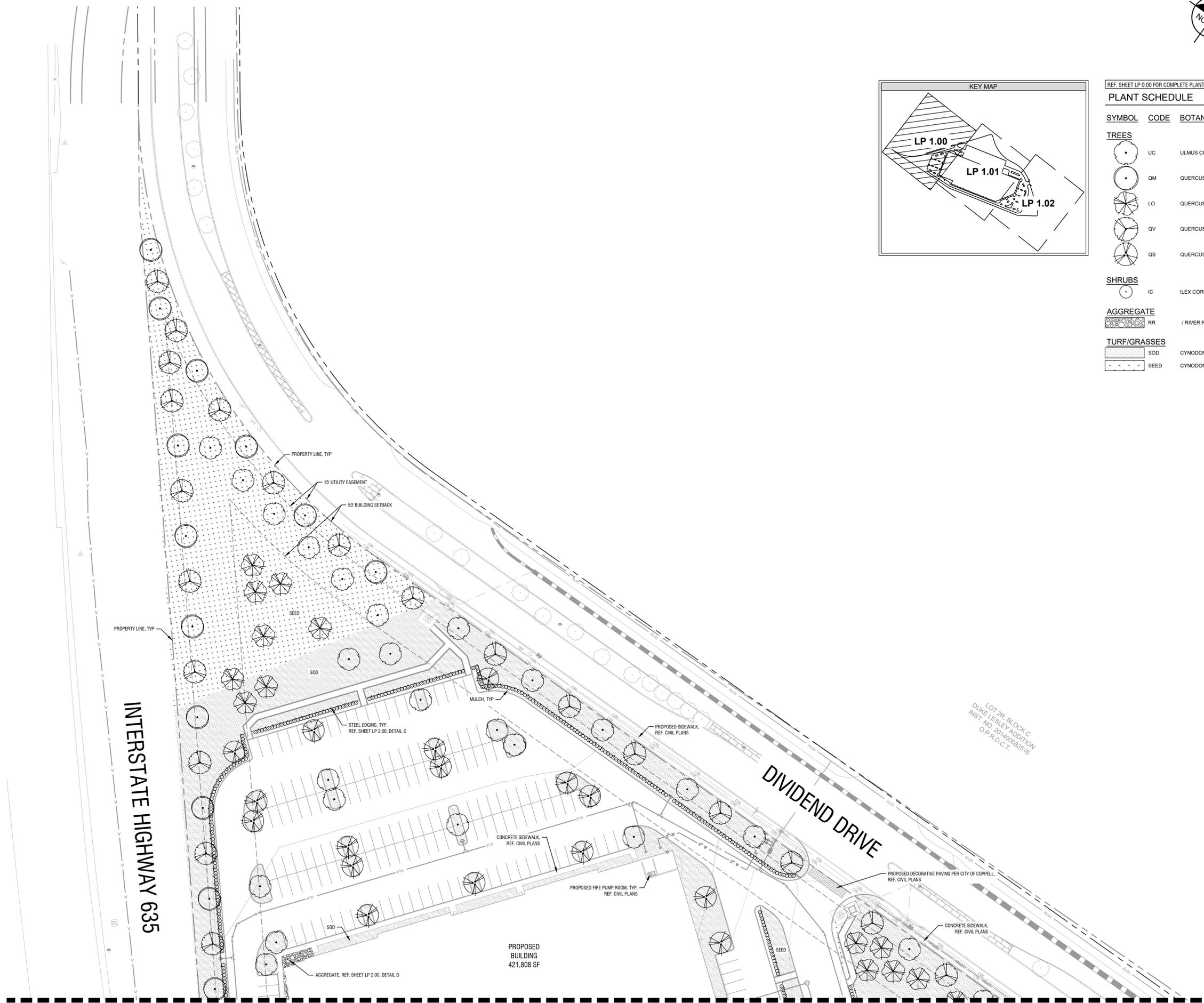
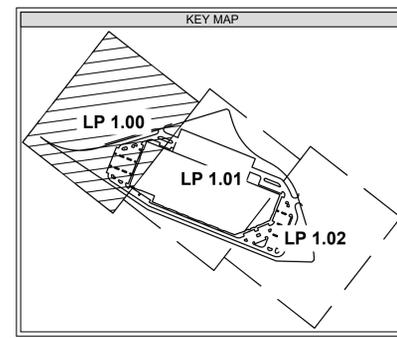
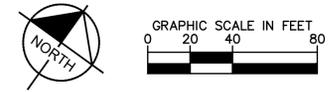


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MATCH LINE SHEET LP 1.01



REF. SHEET LP 0.00 FOR COMPLETE PLANT SCHEDULE

PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL / COMMON NAME
TREES		
	UC	ULMUS CRASSIFOLIA / CEDAR ELM
	QM	QUERCUS MUhlenBERGII / CHINQUAPIN OAK
	LO	QUERCUS LACEYI / LACEY OAK
	QV	QUERCUS VIRGINIANA / LIVE OAK
	QS	QUERCUS SHUMARDII / SHUMARD RED OAK
SHRUBS		
	IC	ILEX CORNUTA 'DWARF BURFORD' / DWARF BURFORD HOLLY
AGGREGATE		
	RR	/ RIVER ROCK
TURF/GRASSES		
	SOD	CYNODON DACTYLON / BERMUDA GRASS
	SEED	CYNODON DACTYLON / CYNODON DACTYLON

NO.	REVISIONS	DATE

Kimley-Horn
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 SUITE 400, RICHARDSON, TX 75080
 PHONE: (214) 417-0535
 WWW.KIMLEY-HORN.COM TX F-928
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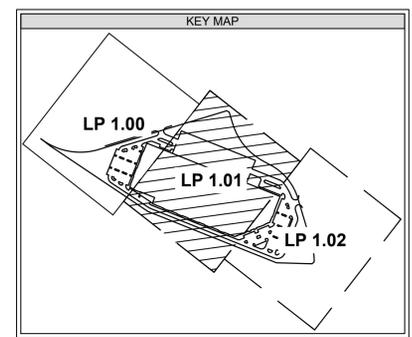
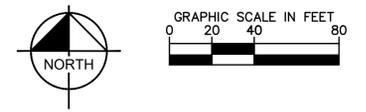
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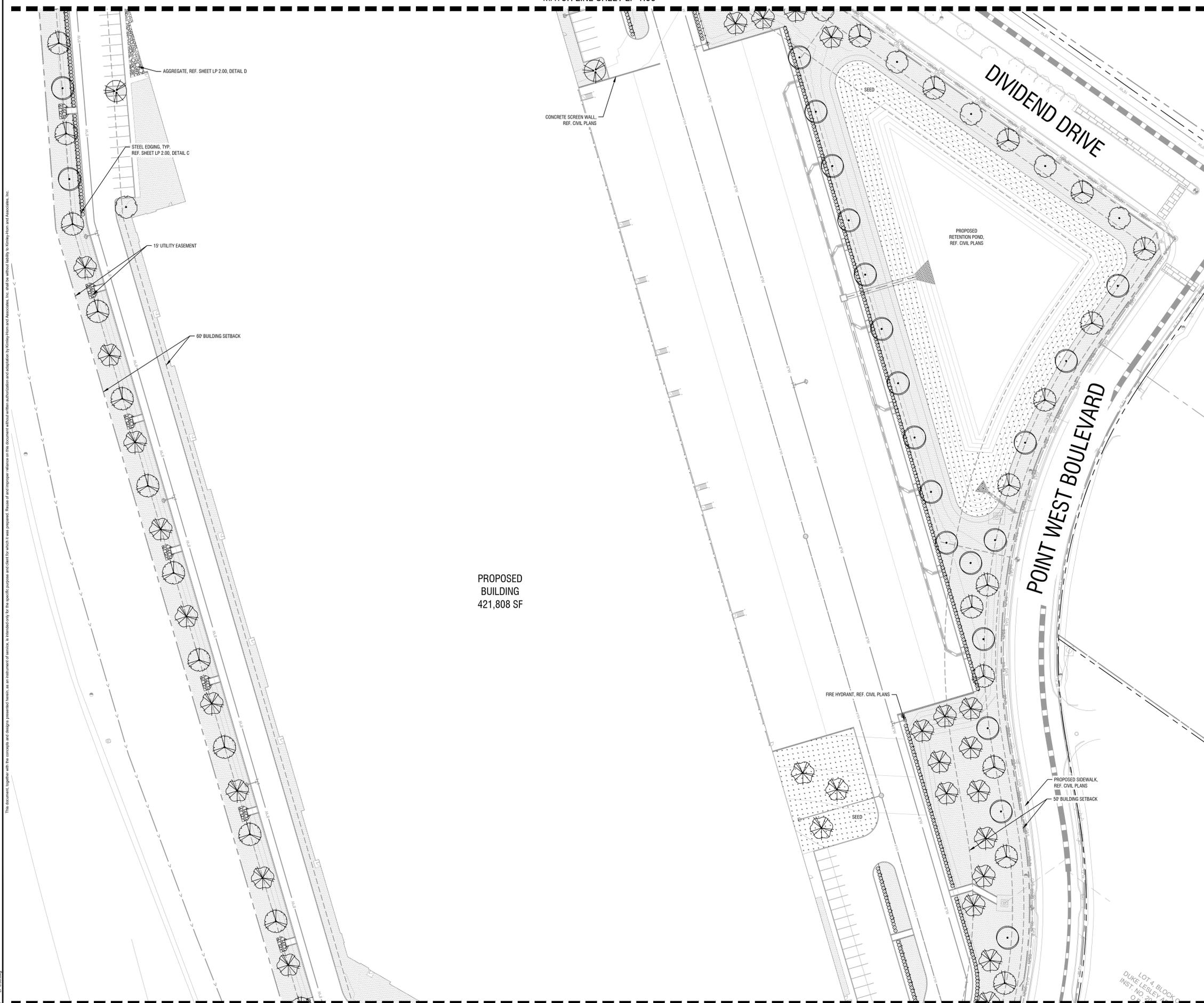
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PROPOSED BUILDING
 421,808 SF

MATCH LINE SHEET LP 1.02

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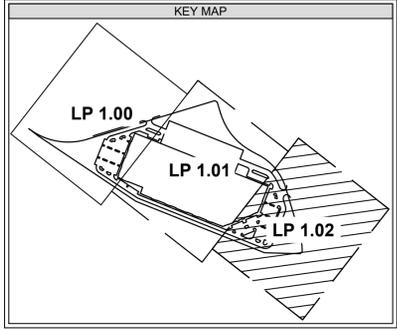
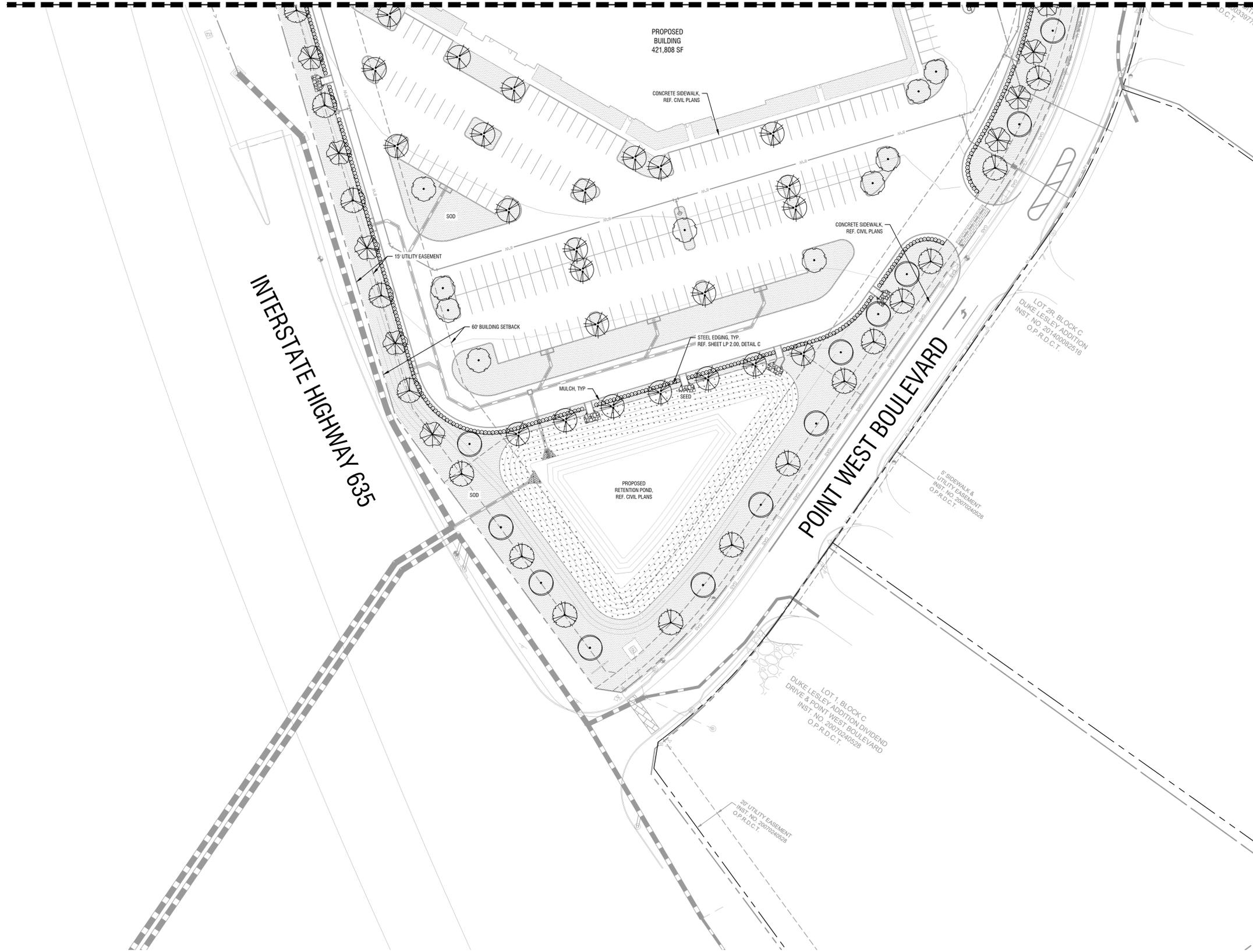
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2.4 PLANTING SOIL

- A. PLANTING SOIL AS USED IN THIS SPECIFICATION MEANS THE SOIL AT THE PLANTING SITE, OR IMPORTED AS MODIFIED AND DEFINED IN SPECIFICATION SECTION PLANTING SOIL. IF THERE IS NO PLANTING SOIL SPECIFICATION, THE TERM PLANTING SOIL SHALL MEAN THE SOIL AT THE PLANTING SITE WITHIN THE PLANTING HOLE.
- B. PLANTING SOIL SHALL BE 2" LAYER OF IMPORTED MIXED SOIL WITH COMPOST FROM LIVING EARTH OR APPROVED EQUAL.
 - 1. CONTACT: PAUL TOMASO, 214.533.6296

2.5 MULCH

- A. MULCH SHALL BE COARSE, GROUND, FROM HARDWOOD TREES AND WOODY BRUSH SOURCES. THE SIZE RANGE SHALL BE A MINIMUM (LESS THAN 25% OR LESS OF VOLUME) FINE PARTICLES 3/8 INCH OR LESS IN SIZE, AND A MAXIMUM SIZE OF INDIVIDUAL PIECES (LARGEST 20% OR LESS OF VOLUME) SHALL BE APPROXIMATELY 1 TO 1-1/2 INCH IN DIAMETER AND MAXIMUM LENGTH APPROXIMATELY 4 TO 8". PIECES LARGER THAN 8 INCH LONG THAT ARE VISIBLE ON THE SURFACE OF THE MULCH AFTER INSTALLATION SHALL BE REMOVED.
 - 1. IT IS UNDERSTOOD THAT MULCH QUALITY WILL VARY SIGNIFICANTLY FROM SUPPLIER TO SUPPLIER AND REGION TO REGION. THE ABOVE REQUIREMENTS MAY BE MODIFIED TO CONFORM TO THE SOURCE MATERIAL FROM A LOCALLY RELIABLE SUPPLIER AS APPROVED BY THE OWNER'S REPRESENTATIVE.
- B. SUBMIT MANUFACTURER'S PRODUCT SPECIFICATION DATA SHEET AND A ONE GALLON SAMPLE FOR APPROVAL.

2.6 TREE STAKING AND GUYING MATERIAL

- A. TREE STAKING SHALL BE PER PLANTING DETAILS.
- B. ARBOR STAKE OR APPROVED EQUAL.
 - 1. MANUFACTURER: WWW.ARBORSTAKES.COM
- C. SUBMIT MANUFACTURER'S PRODUCT DATA FOR APPROVAL.

2.7 CHEMICAL OR BIOLOGICAL ADDITIVES

- A. PER SOILS TEST RESULTS.

2.8 COMPOST

- A. LIVING EARTH COMPOST OR APPROVED EQUAL.
 - 1. MANUFACTURER: LIVING EARTH; 972-869-4332

2.10 PLANTER POTTING SOIL

- A. LIVING EARTH CONTAINER POTTING SOIL OR APPROVED EQUAL.
 - 1. MANUFACTURER: LIVING EARTH; 972-869-4332

PART 3 EXECUTION

3.1 SITE EXAMINATION

- A. EXAMINE THE SURFACE GRADES AND SOIL CONDITIONS TO CONFIRM THAT THE REQUIREMENTS OF THE SPECIFICATION SECTION - PLANTING SOIL - AND THE SOIL AND DRAINAGE MODIFICATIONS INDICATED ON THE PLANTING SOIL PLAN AND DETAILS (IF APPLICABLE) HAVE BEEN COMPLETED. NOTIFY THE OWNER'S REPRESENTATIVE IN WRITING OF ANY UNSATISFACTORY CONDITIONS.

3.2 DELIVERY, STORAGE AND HANDLING

- A. 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 24 HOURS AFTER DELIVERY, SET PLANTS IN A LOCATION PROTECTED FROM SUN AND WIND. PROVIDE ADEQUATE WATER TO THE ROOT BALL PACKAGE DURING THE SHIPPING AND STORAGE PERIOD.
 - 1. ALL PLANT MATERIALS MUST BE AVAILABLE FOR OBSERVATION PRIOR TO PLANTING.
 - 2. USING A SOIL MOISTURE METER, PERIODICALLY CHECK THE SOIL MECHANICAL TAMPER TO ASSURE A FIRM BEDDING FOR THE ROOT BALL. IF THERE IS MORE THAN 1/2 INCHES OF PLANTING SOIL UNDER THE ROOT BALL EXCAVATE AND TAMP THE PLANTING SPACE. DO NOT EXCEED 12 INCHES.
- B. 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.
 - 1. THE OWNER'S REPRESENTATIVE OR CONTRACTOR SHALL APPROVE THE DURATION, METHOD AND LOCATION OF STORAGE OF PLANTS.
- C. PROVIDE PROTECTIVE COVERING OVER ALL PLANTS DURING TRANSPORTING.

3.3 PLANTING SEASON

- A. PLANTING SHALL ONLY BE PERFORMED WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE FOR PLANTING THE MATERIALS SPECIFIED IN ACCORDANCE WITH LOCALLY ACCEPTED PRACTICE BELOW UNLESS OTHERWISE APPROVED IN WRITING BY THE OWNER'S REPRESENTATIVE. IN THE EVENT THAT THE CONTRACTOR REQUEST PLANTING OUTSIDE THE DATES OF THE PLANTING SEASON, APPROVAL OF THE REQUEST DOES NOT CHANGE THE REQUIREMENTS OF THE WARRANTY.

3.4 ADVERSE WEATHER CONDITIONS

- A. NO PLANTING SHALL TAKE PLACE DURING EXTREMELY HOT, DRY, WINDY OR FREEZING WEATHER.

3.5 COORDINATION WITH PROJECT WORK

- A. THE CONTRACTOR SHALL COORDINATE WITH ALL OTHER WORK THAT MAY IMPACT THE COMPLETION OF THE WORK.
- B. PRIOR TO THE START OF WORK, PREPARE A DETAILED SCHEDULE OF THE WORK FOR COORDINATION WITH OTHER TRADES.
- C. COORDINATE THE RELOCATION OF ANY IRRIGATION LINES, HEADS OR THE CONDUITS OF OTHER UTILITY LINES THAT ARE IN CONFLICT WITH TREE LOCATIONS. ROOT BALLS SHALL NOT BE ALTERED TO FIT AROUND LINES. NOTIFY THE OWNER'S REPRESENTATIVE OF ANY CONFLICTS ENCOUNTERED.

3.6 LAYOUT AND PLANTING SEQUENCE

- A. RELATIVE POSITIONS OF ALL PLANTS AND TREES ARE SUBJECT TO APPROVAL OF THE OWNER'S REPRESENTATIVE.
- B. NOTIFY THE OWNER'S REPRESENTATIVE, ONE (1) WEEK 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. LAYOUT BED LINES WITH PAINT FOR THE OWNER'S REPRESENTATIVE'S APPROVAL. SECURE THE OWNER'S REPRESENTATIVE'S ACCEPTANCE BEFORE DIGGING AND START OF PLANTING WORK.
- C. WHEN APPLICABLE, PLANT TREES BEFORE OTHER PLANTS ARE INSTALLED.
- D. IT IS UNDERSTOOD THAT PLANTS ARE NOT PRECISE OBJECTS AND THAT MINOR ADJUSTMENTS IN THE LAYOUT WILL BE REQUIRED AS THE PLANTING PLAN IS CONSTRUCTED. THESE ADJUSTMENTS MAY NOT BE APPARENT UNTIL SOME OR ALL OF THE PLANTS ARE INSTALLED. MAKE ADJUSTMENTS AS REQUIRED BY THE OWNER'S REPRESENTATIVE INCLUDING RELOCATING PREVIOUSLY INSTALLED PLANTS.

3.7 SOIL PROTECTION DURING PLANT DELIVERY AND INSTALLATION

- A. PROTECT SOIL FROM COMPACTION DURING THE DELIVERY OF PLANTS TO THE PLANTING LOCATIONS, DIGGING OF PLANTING HOLES AND INSTALLING PLANTS.
 - 1. 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.
 - 2. TILL TO A DEPTH OF 6 INCHES. ALL SOIL THAT HAS BEEN DRIVEN OVER DURING THE INSTALLATION OF PLANTS.

3.8 SOIL MOISTURE

- A. VOLUMETRIC SOIL MOISTURE LEVEL, IN BOTH THE PLANTING SOIL AND THE ROOT BALLS OF ALL PLANTS, PRIOR TO, DURING AND AFTER PLANTING SHALL BE ABOVE PERMANENT WILTING POINT AND BELOW FIELD CAPACITY FOR EACH TYPE OF SOIL TEXTURE WITHIN THE FOLLOWING RANGES:

SOIL TYPE	PERMANENT WILTING 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%

- 1. VOLUMETRIC SOIL MOISTURE SHALL BE MEASURED WITH A DIGITAL MOISTURE METER. THE METER SHALL BE THE DIGITAL SOIL MOISTURE METER, DSM500 BY GENERAL SPECIALTY TOOLS AND INSTRUMENTS, OR APPROVED EQUIVALENT.
- B. THE CONTRACTOR SHALL CONFIRM THE SOIL MOISTURE LEVELS WITH A MOISTURE METER. IF THE MOISTURE IS TOO HIGH, SUSPEND PLANTING OPERATIONS UNTIL THE SOIL MOISTURE DRAINS TO BELOW FIELD CAPACITY.

3.9 INSTALLATION OF PLANTS - GENERAL

- A. OBSERVE EACH PLANT AFTER DELIVERY AND PRIOR TO INSTALLATION FOR DAMAGE OF OTHER CHARACTERISTICS THAT MAY CAUSE REJECTION OF THE PLANT. NOTIFY THE OWNER'S REPRESENTATIVE OF ANY CONDITION OBSERVED.
- B. NO MORE PLANTS SHALL BE DISTRIBUTED ABOUT THE PLANTING BED AREA THAN CAN BE PLANTED AND WATERED ON THE SAME DAY.
- C. THE ROOT SYSTEM OF EACH PLANT, REGARDLESS OF ROOT BALL PACKAGE TYPE, SHALL BE OBSERVED BY THE CONTRACTOR, AT THE TIME OF PLANTING TO CONFIRM THAT THE ROOTS MEET THE REQUIREMENTS FOR PLANT ROOT QUALITY IN PART 2 PRODUCTS. PLANTS GENERAL PLANT QUALITY. THE CONTRACTOR SHALL UNDERTAKE AT THE TIME OF PLANTING, ALL MODIFICATIONS TO THE ROOT SYSTEM REQUIRED BY THE OWNER'S REPRESENTATIVE TO MEET THESE QUALITY STANDARDS.

- 1. MODIFICATIONS, AT THE TIME OF PLANTING, TO MEET THE SPECIFICATIONS FOR THE DEPTH 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 OWNER'S REPRESENTATIVE MAY CHOOSE TO REJECT THE PLANT RATHER THAN PERMITTING THE MODIFICATION.

- 2. ANY MODIFICATIONS REQUIRED BY THE OWNER'S REPRESENTATIVE TO MAKE THE ROOT SYSTEM CONFORM TO THE PLANT QUALITY STANDARDS OUTLINED IN PART 2 PRODUCTS. PLANTS GENERAL: QUALITY, OR OTHER REQUIREMENTS RELATED TO THE PERMITTED ROOT BALL PACKAGE, SHALL NOT BE CONSIDERED AS GROUNDS TO MODIFY OR VOID THE PLANT WARRANTY.

- 3. THE RESULTING ROOT BALL MAY NEED ADDITIONAL STAKING AND WATER AFTER PLANTING. THE OWNER'S REPRESENTATIVE MAY REJECT THE PLANT IF THE ROOT MODIFICATION PROCESS MAKES THE TREE UNSTABLE OR IF THE TREE IS NOT HEALTHY AT THE END OF THE WARRANTY PERIOD. SUCH PLANTS SHALL STILL BE COVERED UNDER THE WARRANTY
- 4. THE CONTRACTOR REMAINS RESPONSIBLE TO CONFIRM THAT THE GROWER HAS MADE ALL REQUIRED ROOT MODIFICATIONS NOTED DURING ANY NURSERY OBSERVATIONS.

- D. CONTAINER AND BOXED ROOT BALL SHAVING (IF REQUIRED - SEE DRAWINGS FOR CONDITIONS); 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 TO THE ROOTS. SHAVING SHALL REMOVE A MINIMUM OF ONE INCH OF ROOT MAT OR UP TO 2 INCHES AS REQUIRED TO REMOVE ALL ROOT SEGMENTS THAT ARE NOT GROWING REASONABLY RADIAL TO THE TRUNK.

- E. 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.

- F. 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.

- 1. FOR TREES AND SHRUBS PLANTED IN SOIL AREAS THAT ARE NOT TILLED OR OTHERWISE MODIFIED TO A DEPTH OF AT LEAST 12 INCHES OVER A DISTANCE OF MORE THAN 10 FEET RADIUS FROM EACH TREE, OR 5 FEET RADIUS FROM EACH SHRUB, THE SOIL AROUND THE ROOT BALL SHALL BE LOOSENEED AS DEFINED BELOW OR AS INDICATED ON THE DRAWINGS.
 - a. THE AREA OF LOOSENING SHALL BE A MINIMUM OF 3 TIMES THE DIAMETER OF THE ROOT BALL AT THE SURFACE SLOPING TO 2 TIMES THE DIAMETER OF THE ROOT BALL AT THE DEPTH OF THE ROOT BALL.
 - b. 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.
- 2. IF AN AUGER IS USED TO DIG THE INITIAL PLANTING HOLE, THE SOIL AROUND THE AUGER HOLE SHALL BE LOOSENEED AS DEFINED ABOVE FOR TREES AND SHRUBS PLANTED IN SOIL AREAS THAT ARE NOT TILLED OR OTHERWISE MODIFIED.
- 3. 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.
- 4. 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 6 INCHES.

- G. 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 1/2 INCHES OF PLANTING SOIL UNDER THE ROOT BALL EXCAVATE AND TAMP THE PLANTING SPACE. DO NOT EXCEED 12 INCHES.
- H. 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.

- I. THE OWNER'S REPRESENTATIVE MAY REQUEST THAT PLANTS ORIENTATION BE ROTATED WHEN PLANTED BASED ON THE FORM OF THE PLANT
- J. BACKFILL THE SPACE AROUND THE ROOT BALL WITH THE SAME PLANTING SOIL OR EXISTING SOIL THAT WAS EXCAVATED FOR THE PLANTING SPACE. SEE SPECIFICATION SECTION PLANTING SOIL, FOR REQUIREMENTS TO MODIFY THE SOIL WITHIN THE PLANTING BED.

- K. BRACE ROOT BALL BY TAMPING PLANTING SOIL AROUND THE LOWER PORTION OF THE ROOT BALL. PLACE ADDITIONAL PLANTING SOIL AROUND BASE AND SIDES OF BALL IN SW-INCH (8") 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 85% OF MAXIMUM DRY DENSITY. STANDARD PROCTOR OR GREATER THAN 250 PSI AS MEASURED BY A CONE PENETROMETER WHEN THE VOLUMETRIC SOIL MOISTURE IS LOWER THAN FIELD CAPACITY.

- 1. 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.
- L. WHERE INDICATED ON THE DRAWINGS, BUILD A 4 INCH 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.

- M. THOROUGHLY WATER THE PLANTING SOIL AND ROOT BALL IMMEDIATELY AFTER PLANTING.
- N. REMOVE ALL NURSERY PLANT IDENTIFICATION TAGS AND RIBBONS AS PER OWNER'S REPRESENTATIVE INSTRUCTIONS. THE OWNER'S REPRESENTATIVE'S SEALS ARE TO REMAIN ON PLANTS UNTIL THE END OF THE WARRANTY PERIOD.

- O. REMOVE ANY CORRUGATED CARDBOARD TRUNK PROTECTION AFTER PLANTING.
- P. FOLLOW ADDITIONAL REQUIREMENTS FOR THE PERMITTED ROOT BALL PACKAGES.

3.10 PERMITTED ROOT BALL PACKAGES AND SPECIAL PLANTING REQUIREMENTS

- A. THE FOLLOWING ARE PERMITTED ROOT BALL PACKAGES AND SPECIAL PLANTING REQUIREMENTS THAT SHALL BE FOLLOWED DURING THE PLANTING PROCESS IN ADDITION TO THE ABOVE GENERAL PLANTING REQUIREMENTS.
 - B. BALLED AND BURLAPPED PLANTS
 - 1. AFTER THE ROOT BALL HAS BEEN BACKFILLED, REMOVE ALL TWINE AND BURLAP FROM THE TOP OF THE ROOT BALL. CUT THE BURLAP AWAY AS INDICATED ON DRAWINGS; DO NOT FOLD DOWN ONTO THE PLANTING SOIL.
 - 2. IF THE PLANT IS SHIPPED WITH A WIRE BASKET REMOVE THE BASKET WIRES JUST BEFORE THE FINAL BACKFILLING OF THE TREE AS INDICATED ON THE DRAWINGS.
 - 3. EARTH ROOT BALLS SHALL BE KEPT INTACT EXCEPT FOR ANY MODIFICATIONS REQUIRED BY THE OWNER'S REPRESENTATIVE TO MAKE ROOT PACKAGE COMPLY WITH THE REQUIREMENT IN PART 2 PRODUCTS.
- C. CONTAINER PLANTS
 - 1. THIS SPECIFICATION ASSUMES THAT MOST CONTAINER PLANTS HAVE SIGNIFICANT STEM GIRDLING AND CIRCLING ROOTS, AND THAT THE ROOT COLLAR IS TOO LOW IN THE ROOT BALL.
 - 2. REMOVE THE CONTAINER.
 - 3. PERFORM ROOT BALL SHAVING AS DEFINED IN INSTALLATION OF PLANTS: GENERAL ABOVE.
 - 4. 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.
 - 5. REMOVE ALL SUBSTRATE AT THE BOTTOM OF THE ROOT BALL THAT DOES NOT CONTAIN ROOTS.
 - 6. 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.

3.11 GROUND COVER, PERENNIAL AND ANNUAL PLANTS

- A. ASSURE THAT SOIL MOISTURE IS WITHIN THE REQUIRED LEVELS PRIOR TO PLANTING. IRRIGATION, IF REQUIRED, SHALL BE APPLIED AT LEAST 12 HOURS PRIOR TO PLANTING TO AVOID PLANTING IN MUDDY SOILS.
- B. ASSURE THAT SOIL GRADES IN THE BEDS ARE SMOOTH AND AS SHOWN ON THE PLANS.
- C. 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 FROM THE BED EDGE UNLESS OTHERWISE DIRECTED.
- D. 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.
- E. SCHEDULE THE PLANTING TO OCCUR PRIOR TO APPLICATION OF THE MULCH. 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.
- F. PRESS SOIL TO BRING THE ROOT SYSTEM IN CONTACT WITH THE SOIL.
- G. SPREAD ANY EXCESS SOIL AROUND IN THE SPACES BETWEEN PLANTS.

- H. 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.
- I. 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.

3.12 STAKING AND GUYING

- A. DO NOT STAKE TREES UNLESS SPECIFICALLY REQUIRED BY THE CONTRACT DOCUMENTS, OR IN THE EVENT THAT THE CONTRACTOR FEELS THAT STAKING IS THE ONLY ALTERNATIVE WAY TO KEEP PARTICULAR TREES PLUMB.
 - 1. THE OWNER'S REPRESENTATIVE SHALL HAVE THE AUTHORITY TO REQUIRE THAT TREES ARE STAKED OR TO REJECT STAKING AS AN ALTERNATIVE WAY TO STABILIZE THE TREE.
 - 2. TREES THAT REQUIRED HEAVILY MODIFIED ROOT BALLS TO MEET THE ROOT QUALITY STANDARDS MAY BECOME UNSTABLE. THE OWNER'S REPRESENTATIVE MAY CHOOSE TO REJECT THESE TREES RATHER THAN UTILIZE STAKING TO TEMPORARILY SUPPORT THE TREE.
 - 3. PLANTS SHALL STAND PLUMB AFTER STAKING.
 - 4. STAKES SHALL BE DRIVEN TO SUFFICIENT DEPTH TO HOLD THE TREE RIDG.

3.13 STRAIGHTENING PLANTS

- B. MAINTAIN ALL PLANTS IN A PLUMB POSITION THROUGHOUT THE WARRANTY PERIOD. STRAIGHTEN ALL TREES THAT MOVE OUT OF OR PLUMBS INCLUDING THOSE NOT STAKED. PLANTS TO BE STRAIGHTENED SHALL BE EXCAVATED AND THE ROOT BALL MOVED TO THE PLUMB POSITION, AND THEN RE-BACKFILLED.
- C. DO NOT STRAIGHTEN PLANTS BY PULLING THE TRUNK WITH GUYS.

3.14 INSTALLATION OF FERTILIZER AND OTHER CHEMICAL ADDITIVES

- A. 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 OWNER'S REPRESENTATIVE.
- B. CONTROLLED RELEASE FERTILIZERS SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS, STANDARD HORTICULTURAL PRACTICES, AND PER THE SOIL TEST RECOMMENDATIONS.

3.15 PRUNING OF TREES AND SHRUBS

- A. PRUNE PLANTS AS DIRECTED BY THE OWNER'S REPRESENTATIVE. PRUNING TREES SHALL BE LIMITED TO ADDRESSING STRUCTURAL DEFECTS AS SHOWN IN DETAILS; FOLLOW RECOMMENDATIONS IN "STRUCTURAL PRUNING: A GUIDE FOR THE GREEN INDUSTRY" PUBLISHED BY URBAN TREE FOUNDATION, VISALIA CA.
- B. ALL PRUNING SHALL BE PERFORMED BY A PERSON EXPERIENCED IN STRUCTURAL TREE PRUNING.
- C. EXCEPT FOR PLANTS SPECIFIED AS MULTI-STEMMED OR AS OTHERWISE INSTRUCTED BY THE OWNER'S REPRESENTATIVE, PRESERVE OR CREATE A CENTRAL LEADER.
- D. 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.
- E. REMOVE AND REPLACE EXCESSIVELY PRUNED OR MALFORMED STOCK RESULTING FROM IMPROPER PRUNING THAT OCCURRED IN THE NURSERY OR AFTER.
- F. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS.
- G. NO TREE PAINT OR SEALANTS SHALL BE USED.

3.16 MULCHING OF PLANTS

- A. APPLY MULCH BEFORE SETTLING TO DEPTH SHOWN ON PLANS, COVERING THE ENTIRE PLANTING BED AREA. INSTALL NO MORE THAN 1 INCH OF MULCH OVER THE TOP OF THE ROOT BALLS OF ALL PLANTS. TAPER TO 2 INCHES WHEN ADJUTING PAVEMENT.
- B. FOR TREES PLANTED IN LAWN AREAS THE MULCH SHALL EXTEND TO A 4 FOOT RADIUS AROUND THE TREE OR TO THE EXTENT INDICATED ON THE PLANS.
- C. LIFT ALL LEAVES, LOW HANGING STEMS AND OTHER GREEN PORTIONS OF SMALL PLANTS OUT OF THE MULCH IF COVERED.

3.17 PLANTING BED FINISHING

- A. AFTER PLANTING, SMOOTH OUT ALL GRADES BETWEEN PLANTS BEFORE MULCHING.
- B. 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, 1 AND 2 INCHES, THAN THE ADJACENT TURF SO OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE. BED EDGE LINES SHALL BE A DEPICTED ON THE DRAWINGS.

3.18 WATERING

- A. 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 AS REQUIRED.
- B. HANDBY WATER ROOT BALLS OF ALL PLANTS TO ASSURE THAT THE ROOT BALLS HAVE MOISTURE ABOVE WILT POINT AND BELOW FIELD CAPACITY. TEST THE MOISTURE CONTENT IN EACH ROOT BALL AND THE SOIL OUTSIDE THE ROOT BALL TO DETERMINE THE WATER CONTENT.

3.19 CLEAN-UP

- A. 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.
 - 1. 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 OWNER'S REPRESENTATIVE'S SEALS ARE TO REMAIN ON THE TREES AND REMOVED AT THE END OF THE WARRANTY PERIOD.
 - 3. MAKE ALL REPAIRS TO GRADES, RUTS, AND DAMAGE BY THE PLANT INSTALLER TO THE WORK OR OTHER WORK AT THE SITE.
 - 4. REMOVE AND DISPOSE OF ALL EXCESS PLANTING SOIL, SUBSOIL, MULCH, PLANTS, PACKAGING, AND OTHER MATERIAL BROUGHT TO THE SITE BY THE CONTRACTOR.

3.20 PROTECTION DURING CONSTRUCTION

- A. 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.
- B. DAMAGE DONE BY THE CONTRACTOR, OR ANY OF THEIR 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 PROPERTY, SHALL BE CLEANED, REPAIRED OR REPLACED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER. THE OWNER'S REPRESENTATIVE SHALL DETERMINE WHEN SUCH CLEANING, REPLACEMENT OR REPAIR IS SATISFACTORY.

3.21 PLANT MAINTENANCE PRIOR TO SUBSTANTIAL COMPLETION ACCEPTANCE

- A. DURING THE PROJECT WORK PERIOD AND PRIOR TO SUBSTANTIAL COMPLETION ACCEPTANCE, THE CONTRACTOR SHALL MAINTAIN ALL PLANTS.
 - B. 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 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. THE THRESHOLD FOR APPLYING INSECTICIDES AND HERBICIDE SHALL FOLLOW ESTABLISHED INTEGRATED PEST MANAGEMENT (IPM) PROCEDURES. MULCH AREAS SHALL BE KEPT REASONABLY FREE OF WEEDS, GRASS.

3.22 SUBSTANTIAL COMPLETION ACCEPTANCE

- A. UPON WRITTEN NOTICE FROM THE CONTRACTOR, THE OWNER'S REPRESENTATIVE SHALL REVIEW THE WORK AND MAKE A DETERMINATION IF THE WORK IS SUBSTANTIALLY COMPLETE.
 - 1. NOTIFICATION SHALL BE AT LEAST 7 DAYS PRIOR TO THE DATE THE CONTRACTOR IS REQUESTING THE REVIEW.
 - 2. THE DATE OF SUBSTANTIAL COMPLETION OF THE PLANTING SHALL BE THE DATE WHEN THE OWNER'S REPRESENTATIVE ACCEPTS THAT ALL WORK IN PLANTING, PLANTING SOIL, AND IRRIGATION INSTALLATION SECTIONS IS COMPLETE.
 - 3. THE PLANT WARRANTY PERIOD BEGINS AT DATE OF WRITTEN NOTIFICATION OF SUBSTANTIAL COMPLETION FROM THE OWNER'S REPRESENTATIVE. THE DATE OF SUBSTANTIAL COMPLETION MAY BE DIFFERENT THAN THE DATE OF SUBSTANTIAL COMPLETION FOR THE OTHER SECTIONS OF THE PROJECT.

3.23 MAINTENANCE DURING THE WARRANTY PERIOD BY OTHERS

- A. AFTER SUBSTANTIAL COMPLETION ACCEPTANCE, THE CONTRACTOR SHALL MAKE SUFFICIENT SITE VISITS TO OBSERVE THE OWNER'S MAINTENANCE AND BECOME AWARE OF PROBLEMS WITH THE MAINTENANCE IN TIME TO REQUEST CHANGES, UNTIL THE DATE OF END OF WARRANTY FINAL ACCEPTANCE.
 - 1. NOTIFY THE OWNER'S REPRESENTATIVE IN WRITING IF MAINTENANCE, INCLUDING WATERING, IS NOT

SUFFICIENT TO MAINTAIN PLANTS IN A HEALTHY CONDITION. SUCH NOTIFICATION MUST BE MADE IN A TIMELY PERIOD SO THAT THE OWNER'S REPRESENTATIVE MAY TAKE CORRECTIVE ACTION.

- A. NOTIFICATION MUST DEFINE THE MAINTENANCE NEEDS AND DESCRIBE ANY CORRECTIVE ACTION REQUIRED.
- 2. IN THE EVENT THAT THE CONTRACTOR FAILS TO VISIT THE SITE AND OR NOTIFY, IN WRITING, THE OWNER'S REPRESENTATIVE OF MAINTENANCE NEEDS, LACK OF MAINTENANCE SHALL NOT BE USED AS GROUNDS FOR VOIDING OR MODIFYING THE PROVISIONS OF THE WARRANTY.

3.24 MAINTENANCE DURING THE WARRANTY PERIOD BY THE PLANT INSTALLER

- A. DURING THE WARRANTY PERIOD, PROVIDE ALL MAINTENANCE FOR ALL PLANTINGS TO KEEP THE PLANTS IN A HEALTHY STATE AND THE PLANTING AREAS CLEAN AND NEAT.

B. GENERAL REQUIREMENTS:

- 1. ALL WORK SHALL BE UNDERTAKEN BY TRAINED PLANTING CREWS UNDER THE SUPERVISION OF A FOREMAN WITH A MINIMUM OF 5 YEARS EXPERIENCE SUPERVISING COMMERCIAL PLANT MAINTENANCE CREWS.
- 2. ALL CHEMICAL AND FERTILIZER APPLICATIONS SHALL BE MADE BY LICENSED APPLICATORS FOR THE TYPE OF CHEMICALS TO BE USED. ALL WORK AND CHEMICAL USE SHALL COMPLY WITH ALL APPLICABLE LOCAL, PROVINCIAL AND FEDERAL REQUIREMENTS.
- 3. ASSURE THAT HOSES AND WATERING EQUIPMENT AND OTHER MAINTENANCE EQUIPMENT DOES NOT BLOCK PATHS OR BE PLACED IN A MANNER THAT MAY CREATE TRIPPING HAZARDS. USE STANDARD SAFETY WARNING BARRIERS AND OTHER PROCEDURES TO MAINTAIN THE SITE IN A SAFE MANNER FOR VISITORS AT ALL TIMES.
- 4. ALL WORKERS SHALL WEAR REQUIRED SAFETY EQUIPMENT AND APPAREL APPROPRIATE FOR THE TASKS BEING UNDERTAKEN.
- 5. THE CONTRACTOR SHALL NOT STORE MAINTENANCE EQUIPMENT AT THE SITE AT TIMES WHEN THEY ARE NOT IN USE UNLESS AUTHORIZED IN WRITING BY THE OWNER'S REPRESENTATIVE.
- 6. MAINTENANCE VEHICLES SHALL NOT PARK ON THE SITE INCLUDING WALKS AND LAWN AREAS AT ANY TIME WITHOUT THE OWNER'S REPRESENTATIVE'S WRITTEN PERMISSION.
- 7. MAINTAIN A DETAILED LOG OF ALL MAINTENANCE ACTIVITIES INCLUDING TYPES OF TASKS, DATE OF TASK, TYPES AND QUANTITIES OF MATERIALS AND PRODUCTS USED, WATERING TIMES AND AMOUNTS, AND NUMBER OF EACH CREW. PERIODICALLY REVIEW THE LOGS WITH THE OWNER'S REPRESENTATIVE, AND SUBMIT A COPY OF THE LOGS AT THE END OF EACH YEAR OF THE MAINTENANCE AGREEMENT.
- 8. MEET WITH THE OWNER'S REPRESENTATIVE A MINIMUM OF THREE TIMES A YEAR TO REVIEW THE PROGRESS AND DISCUSS ANY CHANGES THAT ARE NEEDED IN THE MAINTENANCE PROGRAM. AT THE END OF THE WARRANTY PERIOD ATTEND A HAND OVER MEETING TO FORMALLY TRANSFER THE RESPONSIBILITIES OF MAINTENANCE TO THE OWNER'S REPRESENTATIVE. PROVIDE ALL INFORMATION ON PAST MAINTENANCE ACTIVITIES AND PROVIDE A LIST OF CRITICAL TASKS THAT WILL BE NEEDED OVER THE NEXT 12 MONTHS. PROVIDE ALL MAINTENANCE LOGS AND SOIL TEST DATA. MAKE THE CONTRACTOR'S SUPERVISOR AVAILABLE FOR A MINIMUM OF ONE YEAR AFTER THE END OF THE WARRANTY PERIOD TO ANSWER QUESTIONS ABOUT PAST MAINTENANCE.

C. PROVIDE THE FOLLOWING MAINTENANCE TASKS:

- 1. WATERING; PROVIDE ALL WATER REQUIRED TO KEEP SOIL WET IN AND AROUND THE ROOT BALLS AT OPTIMUM MOISTURE CONTENT FOR PLANT GROWTH.
 - a. MAINTAIN ALL WATERING SYSTEMS AND EQUIPMENT AND KEEP THEM OPERATIONAL.
 - b. MONITOR SOIL MOISTURE TO PROVIDE SUFFICIENT WATER. CHECK SOIL MOISTURE AND ROOT BALL MOISTURE WITH A SOIL MOISTURE METER ON A REGULAR BASIS AND RECORD MOISTURE READINGS. DO NOT OVER WATER.
- 2. SOIL NUTRIENT LEVELS: TAKE A MINIMUM OF 4 SOIL SAMPLES FROM AROUND THE SITE IN THE SPRING AND FALL AND HAVE THEM TESTED BY AN ACCREDITED AGRICULTURAL SOIL TESTING LAB FOR CHEMICAL COMPOSITION OF PLANT REQUIRED NUTRIENTS, PH, SALT AND % ORGANIC MATTER. TEST RESULTS SHALL INCLUDE LABORATORY RECOMMENDATIONS FOR NUTRIENT APPLICATIONS. APPLY FERTILIZERS AT RATES RECOMMENDED BY THE SOIL TEST.
 - a. MAKE ANY OTHER SOIL TEST AND/OR PLANT TISSUE TEST THAT MAY BE INDICATED BY PLANT CONDITIONS THAT MAY NOT BE RELATED TO SOIL NUTRIENT LEVELS SUCH AS SOIL CONTAMINATED BY OTHER CHEMICALS OR LACK OF CHEMICAL UPTAKE BY THE PLANT.
- 3. PLANT PRUNING: REMOVE CROSS OVER BRANCHING, SHORTEN OR REMOVE DEVELOPING CO DOMINANT LEADERS, DEAD WOOD AND WINTER-DAMAGED BRANCHES, UNLESS DIRECTED BY THE OWNER'S REPRESENTATIVE. DO NOT SHEAR PLANTS OR MAKE HEADING CUTS.
- 4. RESTORE PLANTS: RESET ANY PLANTS THAT HAVE SETTLED OR ARE LEANING AS SOON AS THE CONDITION IS NOTICED.
- 5. GUYING AND STAKING: MAINTAIN PLANT GUYS IN A TAUGHT POSITION. REMOVE TREE GUYS AND STAKING AFTER THE FIRST FULL GROWING SEASON UNLESS DIRECTED BY OWNERS REPRESENTATIVE.
- 6. WEED CONTROL: KEEP ALL BEDS FREE OF WEEDS. HAND-REMOVE ALL WEEDS AND ANY PLANTS THAT DO NOT APPEAR ON THE PLANTING PLAN. CHEMICAL WEED CONTROL IS PERMITTED ONLY WITH THE APPROVAL OF THE OWNER'S REPRESENTATIVE. SCHEDULE WEEDING AS NEEDED BUT NOT LESS 12 TIMES PER YEAR.
- 7. TRASH REMOVAL: REMOVE ALL TRASH AND DEBRIS FROM ALL PLANTING BEDS AND MAINTAIN THE BEDS IN A NEAT AND TIDY APPEARANCE. THE NUMBER OF TRASH AND DEBRIS REMOVAL VISITS SHALL BE NO LESS THAN 12 TIMES PER YEAR AND MAY COINCIDE WITH OTHER MAINTENANCE VISITS.
- 8. PLANT PEST CONTROL: MAINTAIN DISEASE, INSECTS AND OTHER PESTS AT MANAGEABLE LEVELS. MANAGEABLE LEVELS SHALL BE DEFINED AS DAMAGE TO PLANTS THAT MAY BE NOTICEABLE TO A PROFESSIONAL BUT NOT TO THE AVERAGE PERSON. USE LEAST INVASIVE METHODS TO CONTROL PLANT DISEASE AND INSECT OUTBREAKS.

- D. THE OWNER'S REPRESENTATIVE MUST APPROVE IN ADVANCE THE USE OF ALL CHEMICAL PESTICIDE APPLICATIONS.

SECTION 32 9210: LAWNS AND GRASSES

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. FURNISH ALL LABOR, MATERIAL, EQUIPMENT RELATED SERVICES AND SUPERVISION NECESSARY FOR OR INCIDENTAL TO THE INSTALLATION OF THE LAWNS AND GRASSES AS SHOWN OR INDICATED ON THE DRAWINGS AND/OR AS SPECIFIED.
B. WORK INCLUDED:
1. SOIL PREPARATION AND FINE GRADING.
2. FERTILIZATION.
3. GRASS SODDING
4. SEEDING

1.2 SUBMITTALS

- A. DELIVERY RECEIPTS AND INVOICES: SUBMIT ORIGINAL DELIVERY RECEIPTS AND INVOICES FOR MATERIALS USED.
B. PRODUCT DATA: SUBMIT SAMPLE LABEL OR SPECIFICATION OF FERTILIZER.
C. CERTIFICATE: SUBMIT STATE CERTIFICATE STATING VARIETY AND PURITY OF GRASS SOD.
D. SOIL FERTILITY TEST REPORTS:
1. SUBMIT ANALYSIS, TEST RESULTS AND CORRECTIVE RECOMMENDATIONS TO THE OWNER'S REPRESENTATIVE.
2. ONE TEST PER MEDIAN IS REQUIRED OF EXISTING SOIL TAKEN AT DIFFERENT LOCATIONS ON THE PROJECT SITE AS DIRECTED BY THE OWNER'S REPRESENTATIVE.

1.3 PROTECTION

- A. PROTECT PAVING SURFACES, CURBS, UTILITIES, PLANT MATERIALS, AND OTHER EXISTING IMPROVEMENTS FROM DAMAGE BY HEAVY EQUIPMENT.
B. LOCATE AND STAKE IRRIGATION HEADS, VALVE RISERS AND EQUIPMENT PRIOR TO BEGINNING SOIL PREPARATION WORK.
C. DURING WORK AND MAINTENANCE PERIOD, MAINTAIN TOPSOIL IN PLACE AT ESTABLISHED GRADES. REPLACE TOPSOIL AND GRASS LOSSES DUE TO EROSION.
D. PROTECT IN PLACE WORK FROM DAMAGE BY HEAVY EQUIPMENT. PREPARE, GRADE, LEVEL, AND REPLANT DAMAGED AREAS.

1.4 SUBSTANTIAL COMPLETION & PROJECT CLOSEOUT

- A. A CERTIFICATE OF SUBSTANTIAL COMPLETION WILL BE ISSUED WHEN THE WORK PERFORMED UNDER THE CONTRACT HAS BEEN REVIEWED AND FOUND, TO THE OWNER'S REPRESENTATIVE'S BEST KNOWLEDGE, INFORMATION, AND BELIEF, TO BE SUBSTANTIALLY COMPLETE. SUBSTANTIAL COMPLETION IS THE STAGE IN THE PROGRESS OF THE WORK WHEN THE WORK OR DESIGNATED PORTION THEREOF IS SUFFICIENTLY COMPLETE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS SO THE OWNER CAN OCCUPY OR UTILIZE THE WORK FOR ITS INTENDED USE. THE DATE OF SUBSTANTIAL COMPLETION OF THE PROJECT OR PORTION THEREOF IS ALSO THE DATE OF COMMENCEMENT OF APPLICABLE GUARANTEES AS SPECIFIED.
B. A LIST OF ITEMS TO BE COMPLETED OR CORRECTED WILL BE ATTACHED TO THE CERTIFICATE OR SUBSTANTIAL COMPLETION. THE FAILURE TO INCLUDE ANY ITEMS ON SUCH LIST DOES NOT ALTER THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLETE ALL WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
C. THE CONTRACTOR WILL COMPLETE OR CORRECT THE WORK ON THE LIST OF ITEMS WITHIN A SPECIFIC NUMBER OF DAYS AS SHOWN ON THE CERTIFICATE OF SUBSTANTIAL COMPLETION.
D. UPON COMPLETION AND RE-INSPECTION OF ALL CORRECTED ITEMS LISTED, THE OWNER'S REPRESENTATIVE WILL RECOMMEND TO THE OWNER THAT THE WORK OF THIS SECTION IS READY FOR FINAL ACCEPTANCE.

1.5 QUALITY ASSURANCE

- A. GENERAL: COMPLY WITH APPLICABLE FEDERAL, STATE, COUNTY AND LOCAL REGULATIONS GOVERNING LANDSCAPE MATERIALS AND WORK.
B. PERSONNEL: EMPLOY ONLY EXPERIENCED PERSONNEL WHO ARE FAMILIAR WITH THE REQUIRED WORK. PROVIDE SUPERVISION BY A QUALIFIED FOREMAN.

1.6 GUARANTEE

- A. GUARANTEE LAWNS AND GRASSES FOR ONE YEAR AFTER DATE OF FINAL ACCEPTANCE AT THE END OF THIS GUARANTEE PERIOD, ALL LAWN AND GRASS AREAS WILL HAVE ACHIEVED COVERAGE OF THE SPECIFIED GRASS AT A DENSITY OF 100% COVERAGE, FREE OF WEEDS, UNDESIRABLE GRASS SPECIES, DISEASE, AND INSECTS. REPLACE DEAD MATERIALS AND MATERIALS NOT IN VIGOROUS, THRIVING CONDITION AS SOON AS WEATHER PERMITS AND ON NOTIFICATION BY THE OWNER'S REPRESENTATIVE.
B. REPLACE LAWNS AND GRASSES WITH SAME KIND AS ORIGINALLY PLANTED, AT NO COST TO THE OWNER. PROTECT IRRIGATION SYSTEM AND OTHER PIPING, CONDUIT, OR OTHER WORK DURING REPLACEMENT. REPAIR DAMAGE IMMEDIATELY.

1.7 JOB CONDITIONS

- A. DO NOT INSTALL SOD OR SEED ON SATURATED OR FROZEN SOIL.
B. SOD AND SEED INSTALLATION SHALL BE SUBJECT TO SUITABILITY OF THE WEATHER AND OTHER CONDITIONS AFFECTING SOD GROWTH.

1.8 PROGRESS MEETINGS

- A. CONTRACTOR SHALL ATTEND ALL PROGRESS MEETINGS AS REQUESTED BY THE OWNER'S REPRESENTATIVE DURING INSTALLATION.

1.9 QUANTITY VERIFICATION

- A. THE BIDDING CONTRACTOR IS RESPONSIBLE FOR THE INCLUSION OF ALL MATERIALS, LABOR AND EQUIPMENT AS OUTLINED IN THE PLANS AND SPECIFICATION. THE PLANT LIST IS PROVIDED TO THE BIDDING CONTRACTOR AS A CONVENIENCE AND THE QUANTITIES ARE APPROXIMATE. VERIFICATION OF ALL QUANTITIES IS THE SOLE RESPONSIBILITY OF THE BIDDING CONTRACTOR. ANY DISCREPANCIES MUST BE REPORTED TO THE OWNER'S REPRESENTATIVE PRIOR TO SUBMITTAL OF BID.

PART 2 PRODUCTS

2.1 GRASS

- A. GENERAL:
1. SOD SHALL BE NURSERY GROWN ON CULTIVATED AGRICULTURAL SOILS. SOD SHALL HAVE BEEN MOWED REGULARLY AND CAREFULLY AND OTHERWISE MAINTAINED FROM PLANTING TO HARVEST.
2. SOD SHALL BE OF SPECIES INDICATED.
3. THICKNESS OF CUT: SOD SHALL BE CUT TO THE SUPPLIER'S STANDARD WIDTH AND LENGTH. MAXIMUM ALLOWABLE DEVIATION FROM STANDARD WIDTHS AND LENGTHS SHALL BE PLUS OR MINUS .25 INCHES ON WIDTH AND PLUS OR MINUS 5% ON LENGTH.
4. BROKEN STRIPS AND TORN OR UNEVEN ENDS WILL NOT BE ACCEPTED.
5. STRENGTH OF SOD STRIPS: SOD STRIPS SHALL BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE IF SUSPENDED VERTICALLY WHEN GRASPED IN THE UPPER 10% OF THE SECTION.
6. MOISTURE CONTENT: SOD SHALL NOT BE HARVESTED OR TRANSPLANTED WHEN MOISTURE CONTENT (EXCESSIVELY WET OR DRY) MAY ADVERSELY AFFECT ITS SURVIVAL. SOD SHALL BE STORED IN A COMPACT GROUP TO PREVENT DRYING OUT OR FREEZING.
7. TIME LIMITATIONS: SOD SHALL BE HARVESTED, DELIVERED, AND TRANSPLANTED WITHIN A 30-HOUR PERIOD UNLESS A SUITABLE PRESERVATION METHOD IS APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO DELIVERY. SOD NOT TRANSPLANTED WITHIN THIS PERIOD SHALL BE INSPECTED FOR APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO ITS INSTALLATION.
8. THATCH: SOD SHALL BE FREE OF THATCH.
9. DISEASES, NEMATODES AND INSECTS: SOD SHALL BE FREE OF DISEASES, NEMATODES, AND SOIL-BORNE INSECTS.
10. WEEDS: SOD SHALL BE FREE OF OBJECTIONABLE GRASSY AND BROADLEAF WEEDS.
B. SOD:
1. CYNODON DACTYLON (COMMON BERMUDA GRASS)
C. SEED:
1. SEED: FRESH, CLEAN, AND NEW CROP SEED MIXTURE.
A. COMPOSED OF THE FOLLOWING VARIETIES, MIXED TO THE SPECIFIED PROPORTIONS BY WEIGHT, AND TESTED TO MINIMUM PERCENTAGES OF PURITY AND GERMINATION. SHALL BE FREE OF: POA ANNUA, BENT GRASS, AND NOXIOUS WEED SEED.
B. RATE: 2 - 3 POUNDS PER 1,000 SQUARE FEET.
2. TYPES:
TYPES PARTS PURITY GERMINATION
COMMON
BERMUDA 100% 95% 95%

2.2 MULCH

- A. HYDRO-MULCH: CELLULOSE FIBER MULCH SHALL CONSIST OF SPECIALLY PREPARED CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE. THE FIBER MULCH, INCLUDING DYE, SHALL CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS. THE MULCH MATERIAL SHALL BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE CELLULOSE FIBER MULCH WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER AGITATION AND WILL BLEND WITH SEED, FERTILIZER, AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH SHALL COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITH OUT INHIBITING THE GROWTH OF THE GRASS SEEDLINGS.

2.3 TOPSOIL

- A. GENERAL TOPSOIL
1. REFERENCE PLANTING SOIL PLANS.

2.4 SEEDING ACCESSORIES

- A. WEED KILLER:
IF NECESSARY IN THE OPINION OF THE LANDSCAPE ARCHITECT, AN APPLICATION OF BROADLEAF WEED KILLER MAY BE APPLIED PRIOR TO FINAL ACCEPTANCE. ORTHO WEED-B-GONE OR EQUAL AT A RATE OF 3 TEASPOONS/GALLON OF WATER OR 3 CUPS (25 OZ.) PER 50 GALLONS OF WATER SHALL BE APPLIED AT LEAST 48 HOURS BEFORE WATERING OR ANTICIPATED RAINFALL.
B. MULCH TACKLER:
APPLY LIQUID TACKLER UNIFORMLY AT THE RATE OF 60 GALLONS PER ACRE, IF NEEDED, TO KEEP STRAW MULCH IN PLACE.
C. GROUND LIMESTONE
GROUND LIMESTONE SHALL CONTAIN NOT LESS THAN 85% OF TOTAL CARBONATES AND GROUND TO SUCH FINENESS THAT 50% WILL PASS THROUGH A NO. 100 MESH SIEVE, AND 90% WILL PASS THROUGH A NO. 20 MESH SIEVE.

2.5 FERTILIZER

- A. GENERAL:

- 1. FERTILIZER SHALL BE COMMERCIAL PRODUCT, UNIFORM IN COMPOSITION, FREE FLOWING, AND SUITABLE FOR APPLICATION WITH APPROVED EQUIPMENT.
2. DELIVER FERTILIZER TO SITE IN FULLY LABELED ORIGINAL CONTAINERS.
3. FERTILIZER WHICH HAS BEEN EXPOSED TO HIGH HUMIDITY AND MOISTURE HAS BECOME CAKED OR OTHERWISE DAMAGED, MAKING IT UNSUITABLE FOR USE, WILL NOT BE ACCEPTABLE.
B. INITIAL APPLICATION:
1. 17% NITROGEN
2. 17% PHOSPHORIC ACID
3. 17% POTASH
C. SECOND APPLICATION:
1. 21% NITROGEN
2. 0% PHOSPHORIC ACID
3. 0% POTASH

PART 3 EXECUTION

3.1 GENERAL

- A. EXECUTE GRASS PLANTING OPERATIONS ACROSS SLOPE AND PARALLEL TO FINISHED GRADE CONTOURS.

3.2 PRE-PLANT WEED CONTROL

- A. IRRIGATED AND NON-IRRIGATED GRASS AREAS:
1. IF GRASSY OR BROADLEAF WEEDS EXIST ON SITE AT THE BEGINNING OF WORK, SPRAY WITH A NON-SELECTIVE SYSTEMIC CONTACT HERBICIDE, AS RECOMMENDED AND APPLIED BY AN APPROVED LICENSED LANDSCAPE PEST CONTROL ADVISOR AND APPLICATOR. LEAVE SPRAYED PLANTS INTACT FOR AT LEAST 15 DAYS TO ALLOW SYSTEMIC KILL.
2. CLEAR AND REMOVE THESE EXISTING WEEDS BY MOWING OR GRUBBING OFF ALL PLANT PARTS AT LEAST 0.25 INCHES BELOW THE SURFACE OF THE SOIL OVER THE ENTIRE AREA TO BE PLANTED.
B. IRRIGATED GRASS AREAS ONLY:
1. AFTER IRRIGATION SYSTEM IS OPERATIONAL, APPLY WATER FOR 5 TO 10 DAYS AS NEEDED TO ACHIEVE WEED GERMINATION. APPLY CONTACT HERBICIDES AND WAIT AS NEEDED BEFORE PLANTING. REPEAT AS NEEDED.
2. MAINTAIN LAWN AND GRASS AREAS WEED FREE UNTIL FINAL ACCEPTANCE BY OWNER'S REPRESENTATIVE UTILIZING MECHANICAL AND CHEMICAL TREATMENT.

3.3 SOIL PREPARATION

- A. TILLAGE
1. TILLAGE SHALL BE ACCOMPLISHED TO LOOSEN ALL AREAS OF COMPACTED SOIL. WHEN PLACEMENT OF TOPSOIL IS SPECIFIED, TILL COMPACTED AREAS PRIOR TO PLACEMENT.
2. TILL WITH HEAVY DUTY DISC, ROTOTILLER, OR CHISEL-TYPE BREAKING PLOW, CHISELS SET NOT MORE THAN 10 INCHES APART. TILL TO A DEPTH OF 1 TO 3 INCHES.
3. INITIAL TILLAGE SHALL BE DONE IN CROSSING PATTERN FOR DOUBLE COVERAGE THEN FOLLOWED BY A DISC HARROW.
B. CLEANING:
1. REMOVE DEBRIS, BUILDING MATERIALS, RUBBISH, WEEDS, AND STONES LARGER THAN 1 INCH IN DIAMETER.
2. USE ROCK PICK OR OTHER MACHINERY TO GATHER SURFACE STONES LARGER THAN 1 INCH IN DIAMETER.
C. FINE GRADING:
1. AFTER TILLAGE AND PLACEMENT OF TOPSOIL, LEVEL, FINE GRADE, AND DRAG WITH A WEIGHTED SPIKE HARROW OR FLOAT DRAG.
2. ELIMINATE RUTS, DEPRESSIONS, HUMPS, AND OBJECTIONABLE SOIL CLODS.

3.4 FERTILIZING

- A. THE FERTILIZER TYPES AND RATES SPECIFIED HEREIN ARE APPLICABLE UNLESS COUNTERMANDED BY THE SOIL FERTILITY TEST CORRECTIVE RECOMMENDATIONS, IN WHICH CASE THEY WILL BE APPLICABLE.
B. BERMUDA SODDING:
1. INITIAL APPLICATION: APPLY NO MORE THAN 5 DAYS PRIOR TO COMMENCEMENT OF SODDING OPERATIONS AT A RATE OF 20 POUNDS PER 1,000 SQUARE FEET. INCORPORATE INTO SOIL WITH A CHAIN HARROW.
2. SECOND AND THIRD APPLICATIONS: APPLY EVERY 25 DAYS AFTER SODDING AT A RATE OF 10 POUNDS PER 1,000 SQUARE FEET.
3. IRRIGATE THE AREA WITH A MINIMUM OF .25 INCHES OF WATER TO PROPERLY INCORPORATE THE FERTILIZER INTO THE TURF.

3.5 PLANTING SOD

- A. WEATHER CONDITIONS:
1. SCHEDULE WORK FOR PERIODS OF FAVORABLE WEATHER.
2. SOD PLACEMENT ON DAYS WHICH, IN THE JUDGMENT OF THE OWNER'S REPRESENTATIVE, ARE TOO HOT, COLD, SUNNY, DRY, OR WINDY FOR OPTIMAL INSTALLATION MAY BE PROHIBITED.
B. PLACEMENT PATTERN:
1. THE FIRST ROW SHALL BE LAID IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PARALLEL TO THE FIRST ROW AND TIGHTLY ABUTTING EACH OTHER.
2. LATERAL JOINTS SHALL BE STAGGERED. CARE SHALL BE EXERCISED TO ENSURE THAT THE SOD IS NEITHER STRETCHED NOR OVERLAPPED. JOINTS MUST BE BUTTED TIGHTLY TO PREVENT VOIDS THAT COULD PERMIT AIR TO DRY OUT ROOT.
3. IMMEDIATELY AFTER PLACING, SOD SHALL BE PRESSED FIRMLY INTO CONTACT WITH BED BY TAMPING OR ROLLING TO ELIMINATE AIR POCKETS. FOLLOWING TAMPING, SCREENED TOPSOIL SHALL BE USED TO FILL ALL CRACKS AND EXCESS SOIL SHALL BE WORKED INTO THE SOD WITH RAKES OR OTHER SUITABLE EQUIPMENT. SOD SHALL NOT BE SMOTHERED WITH EXCESS FILL SOIL.
4. ON SLOPES STEEPER THAN 3 TO 1, SOD SHALL BE SECURED BY GALVANIZED PINS, WOOD PEGS OR OTHER METHODS APPROVED BY THE OWNER'S REPRESENTATIVE.
5. IMMEDIATELY AFTER SODDING OPERATIONS HAVE BEEN COMPLETED, THE ENTIRE SURFACE SHALL BE COMPACTED WITH A ROLLER OR OTHER APPROVED EQUIPMENT. THE COMPLETED AREA AFTER SODDING SHALL BE UNIFORMLY EVEN, FIRM, AND TRUE TO FINISHED GRADE LINES.
C. WATERING:
1. INITIAL INSTALLATION: WATER MUST BE APPLIED WITHIN 2 HOURS OF EXPOSURE OF THE SOD TO SUN OR WIND. WATER NEWLY LAID SOD UNTIL SATURATION OF THE ENTIRE AREA IS APPARENT. AS A RESULT OF INITIAL IRRIGATION, STANDING WATER MAY BE PRESENT AND MODERATE TO HEAVY RUN OFF MAY OCCUR. CONTINUE TO IRRIGATE DAILY IN SHORTER DURATIONS SO THE ENTIRE AREA STAYS THOROUGHLY WET BUT WITHOUT STANDING WATER. THE LENGTH OF IRRIGATION TIME AND FREQUENCY OF APPLICATIONS WILL VARY AT DIFFERENT LOCATIONS DUE TO WEATHER CONDITIONS AND INDIVIDUAL SITE CHARACTERISTICS.
2. AFTER 7 TO 10 DAYS: CHECK FOR NEW ROOT GROWTH BY LIFTING CORNERS OF SOD BLOCKS. IF CONSISTENT ROOT GROWTH OVER THE ENTIRE SITE IS OBSERVED, WATER APPLICATIONS CAN BE REDUCED TO ONCE EVERY OTHER DAY.
3. AFTER 12 TO 14 DAYS: RECHECK FOR ADDITIONAL ROOTING. IF SOD BLOCKS ARE DIFFICULT TO PULL UP OR ADDITIONAL NEW ROOTS ARE PRESENT ALLOW THE AREA TO DRY TO THE EXTENT THAT MOWING CAN BE PERFORMED.

3.6 SEEDING LAWNS

- A. SEEDING LIMITS: ALL GROUND AREA WITHIN THE INDICATED PROJECT LIMIT LINES, OR ANY ADDITIONAL AREA WHICH HAS BEEN DISTURBED IN ANY WAY BY THE CONSTRUCTION OPERATIONS, SHALL BE FINE GRADED AND PLANTED IN SEED OR SOD UNLESS OTHERWISE INDICATED ON THE DRAWINGS TO BE COVERED WITH TREES, SHRUBS, STRUCTURE(S), WALKS, ROADS, OR OTHER SURFACED AREAS.
B. RESPONSIBILITY: THE CONTRACTOR SHALL UTILIZE ALL SUCH MEASURES AS MAY BE NECESSARY, INCLUDING, BUT NOT LIMITED TO, PROTECTIVE FENCING, SOD, OR EROSION CONTROL NETTING TO PRODUCE A FINISHED CONTINUOUS BLANKET OF TURF OVER ALL AREAS DESIGNATED TO RECEIVE TURF.
1. ANY AREAS EXCEEDING 5:1 SLOPE SHOULD BE TREATED WITH EROSION CONTROL BLANKETS BY CURLEX®, APPROVED EQUAL, OR OTHER EROSION CONTROL METHODS DEEMED NECESSARY BY THE CONTRACTOR TO ESTABLISH A SOLID LAWN AREA.
C. FERTILIZER
1. APPLY FERTILIZER TO INDICATED TURF AREAS AT A RATE EQUAL TO 1.0 POUND OF ACTUAL NITROGEN PER 1,000 SQUARE FEET (450 POUNDS OF FERTILIZER PER ACRE).
2. APPLY FERTILIZERS BY MECHANICAL ROTARY OR DROP TYPE DISTRIBUTOR, THOROUGHLY AND EVENLY INCORPORATED INTO SOIL TO A DEPTH OF 3" BY DISCING OR OTHER APPROVED METHOD. FERTILIZE AREAS INACCESSIBLE TO POWER EQUIPMENT WITH HAND TOOLS AND INCORPORATE INTO SOIL.
3. RESTORE PREPARED AREAS TO SPECIFIED CONDITION IF ERODED, SETTLED, OR OTHERWISE DISTURBED, AFTER FINE GRADING AND PRIOR TO SEEDING.
D. HYDROSEEDING
USE A HYDROMULCHER (SPRAYER) AND APPLY MIXTURE(S) AT THE FOLLOWING RATES. MIX IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
1. LAWNS
a. GRASS SEED: PER SEED TYPE.
b. FERTILIZER: PER SOIL TEST REPORT RECOMMENDATIONS.

3.7 GRADING

- A. MAINTAIN EXISTING ESTABLISHED GRADES, PROTECT TRUE AND EVEN DURING OPERATIONS.

3.8 EROSION CONTROL

- A. DURING WORK AND MAINTENANCE PERIOD, MAINTAIN TOPSOIL IN PLACE AT ESTABLISHED GRADES. REPLACE TOPSOIL AND TURF GRASS LOSSES DUE TO EROSION.

3.9 CLEAN-UP

- A. REMOVE EXCESS MATERIAL AND DEBRIS FROM SITE.

3.10 MAINTENANCE

- A. UNTIL FINAL ACCEPTANCE, MAINTAIN LAWN AND GRASS AREAS BY WATERING, MOWING, WEEDING, SPRAYING, CLEANING AND REPLACING AS NECESSARY TO KEEP THE TURF AND GRASS IN A VIGOROUS, HEALTHY CONDITION.
1. WATERING: AS NECESSARY.
2. MOWING:
a) MOW NEWLY PLANTED GRASS AREAS WEEKLY AFTER INITIAL GROWTH REACHES 1.5 TO 2 INCHES.
3. WEEDING: REMOVE WEEDS AND FOREIGN GRASS OVER LAWN AND GRASS AREAS AT LEAST ONCE A WEEK. HERBICIDES MAY BE USED ONLY WHEN APPROVED BY THE OWNER'S REPRESENTATIVE.

END OF SECTION 329210

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LAWN AND GRASSES SPECIFICATIONS