### PLANTING SPECIFICATIONS

#### PART 1 GENERAL

### DESCRIPTION

A. WORK INCLUDED: PROVIDE ALL LABOR, MATERIALS, EQUIPMENT AND SERVICES AS NECESSARY TO COMPLETE ALL LANDSCAPING WORK AS SHOWN ON THE DRAWINGS AND AS SPECIFIED HERIN.

## B. RELATED WORK DESCRIBED ELSEWHERE:

1. COORDINATE WITH GRADING, DRAINAGE, AND PAVING DRAWINGS SUBMITTED BY THE ENGINEER.

### CODES, RULES, AND SAFETY ORDERS

A. ALL WORK AND MATERIALS TO BE IN FULL ACCORDANCE WITH THE LATEST RULES AND REGULATIONS OF SAFETY ORDERS OF DIVISION OF INDUSTRIAL SAFETY; THE UNIFORM BUILDING CODE, AND OTHER APPLICABLE LAWS AND REGULATIONS, INCLUDING ALL CITY CODES. NOTHING IN THESE SPECIFICATIONS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES. SHOULD THE CONTRACT DOCUMENTS BE AT VARIANCE WITH THE AFOREMENTIONED RULES AND REGULATIONS, NOTIFY AEP AND GET INSTRUCTIONS BEFORE PROCEEDING WITH THE WORK AFFECTED.

### GUARANTEE

A. PLANT GUARANTEE: WARRANT ALL NEW AND NEWLY TRANSPLANTED PLANT MATERIAL TO REMAIN ALIVE AND BE IN A HEALTHY, VIGOROUS CONDITION FOR 1 YEAR (BEGINNING AT THE TIME OF PLANTING OR REPLACEMENT PLANTING).

B. REPLACEMENT OF PLANTS: ALL PLANTS THAT ARE DEAD OR, AS DETERMINED BY AEP OR OWNER'S REPRESENTATIVE, ARE IN AN UNHEALTY OR DAMAGED CONDITION ARE TO BE REPLACED. THE COST OF SUCII REPLACEMENT(S) IS AT CONTRACTOR'S EXPENSE.

C. LANDSCAPE CONTRACTOR SHALL REPLACE DAMAGED OR DEAD LANDSCAPING MATERIAL AS NECESSARY DURING MAINTENANCE (SEE MAINTENANCE SECTION). REPLACEMENT OF DEAD OR DAMAGED LANDSCAPING PLANTS SHALL BE COMPLETELY WITHIN 30 DAYS OF NOTIFICATION BY AEP OR ITS REPRESENTATIVE OR CITY OFFICIAL.

D. CONDITIONS OF PLANT GUARANTEE: WARRANTY SHALL NOT INCLUDE DAMAGE OR LOSS OF TREES, SHRUBS, AND GROUND COVERS CAUSED BY FLOODS, FIRES, FREEZING RAINS, LIGHTING STORMS OR WINTER KILL CAUSED BY EXTREME COLD AND SEVERE WINTER CONDITIONS NOT TYPICAL OF PLANTING AREA, ALL DAMAGE CAUSED FROM ACTS OF NEGLIGENCE FROM CONTRACTOR'S OPERATIONS AND MAINTENANCE SHALL BE REPAIRED AND REPLACED AT CONTRACTOR'S EXPENSE.

## COORDINATION AND RESPONSIBILITY

A. UTILITIES: BEFORE COMMENCING WORK ON THE SITE, BECOME THOROUGHLY ACQUANTED WITH LAYOUT OF ALL UNDERGROUND UTILITIES AND STRUCTURES OVER THE ENTIRE SITE. ALL REQUISITE REPAIRS TO DAMAGE CAUSED BY WORK OF THIS SECTION SHALL BE AT THE CONTRACTOR'S EXPENSE.

B. COORDINATE AND COOPERATE WITH OTHER CONTRACTORS WORKING ON THE SITE FOR SUCCESSFUL COMPLETION OF THE PROJECT, THIS INCLUDES MAINTAINING IN PLACE EROSION AND SEDIMENT CONTROL MEASURES.

# INSPECTIONS

A. PERIODIC INSPECTION: DURING THE COURSE OF CONSTRUCTION AEP OR ITS REPRESENTATIVE MAY VISIT THE SITE AND INSPECT WORK IN PROGRESS AT HIS DISCRETION.

B. SCHEDULED INSPECTIONS: THE CONTRACTOR MUST NOTIFY AEP FOR INSPECTION:

1. PRIOR TO PLANTING TREES, SHRUBS, AND GROUND COVERS TO INSPECT PLANT MATERIAL DELIVERED TO SITE AND INSPECT PLANT PITS AND BACKFILL MIXTURE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL PLANT MATERIAL AT SITE, BACKFILL MIXTURE STOCKPILED, AND ALL TREE PITS EXCAVATED PRIOR TO AEP VISITING SITE.

2. AT COMPLETION OF ALL WORK IN ACCORDANCE WITH CONTRACT DOCUMENTS.

#### SUBSTITUTIONS

A. PLANT SUBSTITUTION: PLANTS OF KINDS OTHER THAN THOSE INDICATED ON THE PLANT LIST WILL BE CONSIDERED BY THE AEP UPON SUBMISSION OF PROOF THAT ANY PLANT IS NOT PROCURABLE IN THE REGION. REPLACEMENT PLANT WILL BE APPROVED ON THE GROUNDS THAT IT RESEMBLES TH PLANT SPECIFIED IN REGARDS TO APPEARANCE, ULTIMATE HEIGHT, SHAPE, HABIT OF GROWTH, GENERAL SOIL, AND OTHER REQUIREMENTS. IN NO CASE SHALL THE AVERAGE COST AND VALUE OF THE SUBSTITUTED PLANTS BE MORE THAN THE COST AND VALUE OF THE PLANTS INDICATED. ALL SUBSTITUTIONS MUST BE SUBMITTED IN WRITING NO MORE THAN SEVEN (7) DAYS AFTER THE NOTICE TO PROCEED AND APPROVAL OF THE SUBSTITUION MUST BE ACKNOWLEDGED BY THE AEP IN WRITING BEFORE APPROVAL IS GRANTED.

### PART 2 PRODUCTS

### PLANT MATERIALS

A. CONFORM TO REQUIREMENTS OF PLANT SCHEDULE ON DRAWINGS. SIZE AND HEIGHT, AS SPECIFIED IN THE PLANT SCHEDULE ON DRAWINGS WILL TAKE PRECEDENCE OVER THE CONTAINER SIZE.

B. QUALITY: SOUND, HEALTHY, VIGOROUS, FREE FROM PLANT DISEASE, INSECTS, PESTS, OR THEIR EGGS AND NOXIOUS WEEDS. CONTAINER STOCK SHALL BE WELL ESTABLISHED AND FREE OF EXCESSIVE ROOTBOUND CONDITIONS.

C. INSPECTION OF PLANT MATERIALS REQUIRED BY CITY, COUNTY, STATE, OR FEDERAL AUTHORITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, SECURE PERMITS OR CERTICATES PRIOR TO DELIVERY OF PLANTS TO SITE.

D. ACCEPTANCE OR REJECTION OF PLANT MATERIAL WILL BE DETERMINED BY THE CITY, OWNER, OR THE OWNER'S REPRESENTATIVE ON THE PROJECT SITE. PLANTS ARE SUBJECT TO INSPECTION AND APPROVAL OR REJECTION AT ANY TIME BEFORE OR DURING PROGRESS OF WORK FOR SIZE, VARIETY, CONDITION, LATENT DEFECTS AND INJURIES. REJECTED PLANTS SHALL BE REMOVED FROM THE PROJECT SITE IMMEDIATELY.

### SOIL AMENDMENTS

A. MULCH USED IN PLANT BACKFILL MIX AND SOIL PREPARATION: WELL ROTTED WOOD FIBER, COMMERCIALLY PREPARED AND PROCESSED FOR NINETY-EITHT (98) PERCENT ORGANIC CONTENT AND COMPOSTED TO SUPPORT BACTERIAL CULTURES; PH RANGE TO BE 6.8 - 7.2. MULCH SHALL CONTAIN A MINIMUM 1.0 PERCENT NITROGEN ON A DRY WIGHT BASIS.

B. FERTILIZER TABLETS FOR PLANT PITS: AGRIFORM (21 GRAM) WITH A GUARANTEED ANALYSIS OF 20% NITROGEN, 10% AVAILABLE PHOSPHORIC ACID, 5% POTASH, 2% COMBINED CALCIUM, 1.5% SULFUR, .36% IRON, .43% ZINC, AND .18% MANGANESE.

C. AMMONIOUM PHOSPHATE: (16-20-0) WITH A GUARANTEED ANALYSIS OF 16% NITOGEN, 20% AVAILABLE PHOSPHORIC ACID.

D. PLANT BACKFILL MIX: PLANTING BACKFILL SHALL BE A THOROUGHLY BLENDED MIXTURE OF SOIL AND SOIL AMENDMENTS AT THE FOLLOWING MIXTURES:

MULCH 1/3 C.Y.

TOPSOIL 2/3 C.Y.

# APPROVED TOPSOIL

A. TOPSOIL CONTENT: 20-45% SILT, 14-20% CLAY, AND 30-60% SAND WITH A MINIMUM OF 5% ORGANIC MATERIAL (NATURAL OR ADDED). THE PH SHALL NOT BE LOWER THAN 6.0 NOR HIGHER THAN 7.8. SOLUBLE SALTS SHALL NOT EXCEED 1200 PPM.

B. TOPSOIL QUALITY: SCREENED, FERTILE, FRIABLE SOIL FROM WELL DRAINED ARABLE LAND AND FREE FROM NUTGRASS, REFUSE, ROOTS, HEAVY CLAY, NOXIOUS WEEDS AND ANY MATERIAL TOXIC TO PLANT GROWTH.

MATERIALS USED FOR TOP DRESSING AND MULCHJING OF SHRUBS, TREE AND GROUND COVER PLANTING BEDS

A. HARDWOOD MULCH; WELL COMPOSED.

### WEED CONTROL CHEMICALS

A. THE APPLICATOR OF ALL WEED CONTROL MATERIALS SHALL BE LICENSED BY THE STATE OF VIRGINIA AS A PEST CONTROL OPERATOR AND A PEST CONTROL ADVISOR IN ADDITION TO HOLDING ANY SUBCONTRACTOR LICENSES THAT ARE REQUIRED.

PRIOR TO THE INSTALLATION OF ANY WEED CONTROL MATERIALS, THE PEST CONTROL ADVISOR SHALL SUBMIT TO AEP A LIST OF THE WEED CONTROL MATERIALS AND QUANTITIES PER ACRE INTENDED FOR USE IN CONTROLLING THE WEED TYPES PREVALENT AND EXPECTED ON THE SITE. PEST CONTROL ADVISOR SHALL FURNISH DATE TO DEMONSTRATE THE COMPATIBILITY OF THE WEED CONTROL MATERIALS AND METHODS WITH THE INTENDED PLANTING VARIETIES.

WEED CONTROL SHALL BE APPLIED TO ALL LAWN AND PLANTING AREAS WITH ADEQUATE TIME TO MEET MANUFACTURER'S RECOMMENDATIONS. IF AFTER APPLICATION, WEEDS REAPPEAR PRIOR TO PLANTING, REAPPLICATIONS WILL BE PROVIDED PER MANUFACTURER'S RECOMMENDATIONS. IF WEEDS REAPPEAR AFTER PLANTING, ADDITIONAL WEED CONTROL WILL BE APPLIED IN A MANNER NOT TO DAMAGE OR RETARD THE GROWTH OF PLANT MATERIAL. ANY PLANT MATERIAL DAMAGED OR KILLED DURING THIS PROCESS OR AS A RESULT OF THE APPLICATION OF WEED CONTROL MATERIAL, SHALL BE REPLACED AT NO COST TO THE OWNER.

I. SELECTIVE CONTACT SYSTEMIC HERBICIDES: COMPATIBLE WITH EXISTING PLANT MATERIAL TO REMAIN AND HAVING NO RESIDUAL. USE IN QUANTITIES AND STRENGHS RECOMMENDED BY MANUFACTURER.

2. PRE-EMERGENT HERBICIDES: USE PRE-EMERGENT HERBICIDE(S) COMPATIBLE WITH NEWLY PLANTED MATERIALS IN QUANTITIES AND STRENGTHS RECOMMENDED BY MANUFACTURER. USE ONLY APPROVED WEED CONTROL MATERIALS AND A LICENSED APPLICATION.

## PART 3 EXECUTION

### SITE PREPARATION

A. PROTECTION: TAKE CARE IN PERFORMING WORK OF THIS SECTION TO AVOID CONDITIONS WHICH WILL CREATE HAZARDS. POST SIGNS OR BARRIERS AS REQUIRED.

B. PRIOR TO PLANTING OPERATIONS: ALL TOP GROWTH OF GRASS, WEEDS, AND OTHER UNWANTED PLANT MATERIAL SHALL BE REMOVED FROM ALL AREAS TO BE PLANTED. CONTRACTOR SHALL SPRAY ALL EXISTING GRASS AND WEEDS WITH SPECIFIED CONTACT SYSTEMIC HERBICIDE A MINIMUM OF TWO TIMES PER MANUFACTURER'S INSTRUCTIONS. DO NOT SPRAY EXISTING TREES. PROTECT AS REQUIRED.

## FINISH GRADING

A. COORDINATE WITH ROUGH GRADING.

B. DIRECT SURFACE DRAINAGE IN MANNER INDICATED ON GRADING AND DRAINAGE DRAWINGS SUBMITTED BY THE ARCHITECT BY MOLDING SURFACE TO FACILITATE NATURAL RUN-OFF OF WATER. FILL LOW SPOTS AND POCKETS WITH TOPSOIL AND GRADE TO ACHIEVE POSITIVE DRAINAGE.

# PLANT MATERIALS

A. EXAMINATION: BEFORE PROCEEDING WITH WORK, CHECK AND VERIFY DIMENSIONS AND QUANTITIES. REPORT VARIATIONS BETWEEN DRAWINGS AND SITE TO AEP BEFORE PROCEEDING WITH WORK, ALL PLANTING INDICATED ON DRAWINGS IS REQUIRED UNLESS OTHERWISE INDICATED.

B. PROTECTION: TAKE CARE AND PREPARATION IN WORK TO AVOID CONDITIONS WHICH WILL CREATE HAZARDS. POST SIGNS OR BARRIERS AS REQUIRED. PROVIDE ADEQUATE MEANS FOR PROTECTION FROM DAMAGE THROUGH EXCESSIVE EROSION, FLOODING, HEAVY RAINS, ETC.

C. INSTALLATION: DO NOT PLANT TREES, SHRUBS, AND GROUND COVERS UNTIL MAJOR CONSTRUCTION OPERATIONS ARE COMPLETED, SOIL PREPARATION IS COMPLETE.

1. LAYOUT INDIVIDUAL TREE LOCATIONS AND AREAS OF MULTIPLE SHRUB AND GROUND COVER PLANTINGS. STAKE LOCATIONS AND SECURE ACCEPTANCE FROM AEP OR ITS REPRESENTATIVE BEFORE PLANTING. MAKE MINOR ADJUSTMENTS AS REQUESTED.

2. EXCAVATE PLANT PITS TO MINIMUM DIMENSIONS DETAILED ON

3. REMOVE PLANT FROM CONTAINER AND PLACE IMMEDIATELY IN PLANT HOLE OVER COMPACTED BACKFILL MIX. PLACE TREES, SHRUBS, AND GROUND COVERS IN HOLES TO CONFORM TO PLANTING DETAILS ON

4. BACKFILL WITH HOMOGENEOUS MIXTURE OF SPECIFIED BACKFILL. ADD FERTILIZER TABLETS IN PLANT PITS IN QUANTITIES SPECIFID HERE

5. SETTLE BY FIRMING AND WATERING TO BRING BALL DOWN TO PROPER LEVEL AS SHOWN ON DRAWINGS. DO NOT USE MUDDY SOIL FOR BACKFILLING, MAKE ADJUSTMENTS IN POSITIONS OF PLANTS AS DIRECTED.

6. THOROUGHLY WATER PLANTS IMMEDIATELY AFTER PLANTING.

#### TREE PLANTING

A. BACKFILL WITH HOMOGENEOUS MIXTURE OF SPECIFIED BACKFILL. ADD FERTILIZER TABLETS IN PLANT PITS IN QUANTITIES SPECIFIED.

B, SETTLE BY FIRMING AND WATERING TO BRING BALL DOWN TO PROPER LEVEL AS SHOWN IN DETAILS. DO NOT USE MUDDY SOIL FOR BACKFILLING. MAKE ADJUSTMENTS IN POSITIONS OF PLANTS AS DIRECTED.

B. THOROUGHLY WATER PLANTS IMMEDIATELY AFTER PLANTING.

#### TREE STAKING AND GUYING

A. SUPPORT FOR TREES: INCLUDE PLACEMENT OF TREE STAKES IN PLANT PITS OUTSIDE OF PLANT ROOTBALL. DRIVE STAKES INTO UNDISTURBED SOIL A MINIMUM OF 12 INCHES BEFORE BACKFILLING SO TREE ROOTS ARE NOT DAMAGED. LODGEPOLE STAKES SHALL BE INSTALLED IN A VERFICAL POSITION WITH TOPS OF STAKES AT THE SAME LEVEL.

B. WIRE TIES: TIE TREE TO STAKES. INSTALL SINGLE STRAND OF GALVANIZED WIRE THROUGH SECTION OF RUBBER HOSE. LENGTH OF HOSE SHALL BE LONG ENOUGH TO PROTECT TREE TRUNK FROM WIRE. SECURE WIRE TO STAKE BY STAPLING AND REMOVE EXCESS WIRE ENDS.

## TOP DRESSING OF PLANTING BEDS

A. RAKE AND GRADE SMOOTH SUBGRADE REMOVING ALL ROCKS LARGER THAN 1/2 INCH IN DIAMETER AND DELETERIOUS MATERIAL

B. APPLY SPECIFIED PRE-EMERGENCE HERBICIDE TO SUBGRADE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

C. PLACE DECOMPOSED MULCH TO A 3-INCH DEPTH AND RAKE TO A NEAT FINISH APPEARNCE. FINISH GRADE OF MULCH TO BE 1-1/2 INCH BELOW TOP OF WALKS.

# FINISH APPEARANCE

A. CLEAN UP AND REPAIR: CLEAN ALL SIDEWALKS, WALLS, AND PLANTING AREAS OF DEBRIS, SOIL AND CHEMICAL STAINS, AND WASTE MATERIALS.

B. FINISH APPEARANCE: PRIOR TO FINAL ACCEPTANCE OF LANDSCAPING BY AEP, ALL NEW AND TRANSPLANTED PLANT MATERIAL SHALL BE IN A HEALTHY STATE OF GROWTH, PLANTER AREAS WEED FREE, TREES HAVE BEEN STAKED AS DETAILED, AND ALL LANDSCAPING, HEADERS, AND PLANTER TOP DRESSING HAVE BEEN INSTALLED AS PER CONTRACT DOCUMENTS.

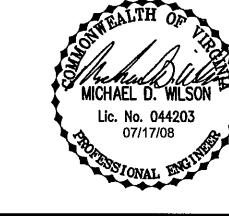
# LANDSCAPE MAINTENANCE

A. GENERAL: CONTRACTOR WILL BE RESPONSIBLE FOR THE HEALTH AND GROWTH OF ALL NEW AND TRANSPLANTED LANDSCAPING FOR LYEAR UPON COMPLETION OF WORK. THIS INCLUDES WEED CONROL, MULCHING AND REGULAR WATERING AS NECESSARY, ONE FINAL WEED CONTROL. APPLICATION FOLLOWED BY (ONE WEEK LATER) MULCHING AND FERTILIZER STAKES (AS NECESSARY) SHALL BE COMPLETED I YEAR AFTER INSTALLATION.

B. REPLACE LANDSCAPING THAT IS DEAD OR APPERS DEAD DURING MAINTENANCE. MAKE REPLACEMENTS WITHIN 30 DAYS OF NOTIFICATION (BY AEP OR CITY).

C. ON-SITE WATER ACCESS (FIRE HYDRANT): CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE APPROPRIATE FIRE HYDRANT METER AND PERMIT TO WATER NEW LANDSCAPING AND FOR REGULAR MAINTENANCE (1 YEAR), EXISTING HYDRANT IS LOCATED ON SOUTHWEST CORNER OF SITE. 600 FEET OF HOSE WILL BE REQUIRED TO REACH LIMITS OF SITE.

D. PROVIDE WITTEN INSTRUCTIONS ON MAINTENANCE REQUIREMENTS TO AEP.

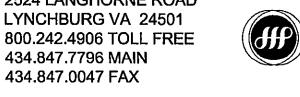


HURT AND PROFFITT, INC. PROJECT NO. 20080140 G.L. NO. 260-07-A5.3 FILE, NO. G-12176



**ENGINEERING >> SURVEYING >> PLANNING PROFFITT** INCORPORATED

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CITY OF ROANOKE

LANDSCAPE SPECIFICATIONS

SCALE: AS NOTED DR: NRH/JWG ENG: MDW CH: FHJ/RAH APPD: MDW DATE: 07/10/08 **AMERICAN** 1 RIVERSIDE PLAZA DWG. 10 OF 10 COLUMBUS, OH 43215 NO. LECTRIC

NO DATE REVISION DESCRIPTION DR ENG CK ISSUE#