

**LANDSCAPE MAINTENANCE PROGRAM REQUIREMENTS**

**1. LAWNS/TURF**

**A. Mowing**

Not all turf area types may be present on every project. Adjust Maintenance Program to address those areas specifically identified on Planting/Landscape Plans.

**Level I - Turf Areas** will be mowed as needed throughout the year in order to maintain a clean, neat appearance. Typically all turf will be cut at a height of 2.5" - 3" during the cooler months and a height of 4" - 4.5" during the hottest months. Level I Turf Areas are defined as any turf area unless otherwise specifically defined on the Landscape Plans as Level II (areas requiring only seasonal mowing).

**B. Fertilization and Weed Control**

**February/March:** All Level I Turf Areas will be treated with a pre-emergent herbicide for the prevention of annual weed grasses and broad leaf weeds.

**March:** All Level I Turf Areas will be treated with a high-density fertilizer to promote spring plant growth and replace nutrients lost due to leaching during the winter months.

**May:** All Level I Turf Areas will be treated with a post-emergent herbicide for control of broad leaf weeds and weed grasses, plus a slow-release fertilizer to maintain a healthy turf during the Summer months.

**September:** All Level I Turf Areas will have a fall application of fertilizer to replace nutrients lost during the summer months.

**November:** All Level I Turf Areas will be treated with a slow-release fertilizer with Iron-Plus to promote winter hardiness.

**C. Insects and Disease Control**

All turf areas will be monitored for infestation of insects or appearance of turf diseases. Due to the unpredictable nature of these problems, treatments will be performed on an "as needed" basis to prevent and control infestations. All insecticides/ fungicides will be applied under the supervision of a Certified Pesticide Applicator. Vertebrate pests such as deer, beaver, vols, and moles are not covered.

**2. EDGING**

OPTIONAL

**A. Lawns**

All curbs and sidewalks will be edged, as needed, throughout the year in order to maintain a clean cut, crisp edge.

**B. Shrub Beds**

All bed lines will be edge cut once a year.

**3. PLANT MAINTENANCE**

**A. Weed Control**

1. March: all bed areas will be treated with a pre-emergent herbicide to control weed seed germination (Ex. Barricade, Snapshot, pendulum)

2. When needed, all beds will be treated with the selective post-emergent herbicide, (Ex. Finale, Roundup, Reward,) to control weed seeds, which have germinated.

3. Additional hand weeding and selective spraying of herbicides such as ROUND-UP will be performed as needed

4. All applications will be applied under the supervision of a licensed Certified Pesticide Applicator.

5. All groundcover beds shall be weeded as needed to prevent volunteer growth of alien species.

**B. Fertilization**

1. All evergreen shrub beds will be fertilized in the early spring according to soil test results and plant fertilizer recommendations.

2. All blooming trees and shrubs will be fertilized with a complete analysis fertilizer 4 to 5 weeks after blooming.

3. Deciduous trees and shrubs except blooming species will be fertilized with a complete slow release fertilizer in the early spring and two additional times during the growing season.

**C. Pruning**

1. All plantings will be pruned at the appropriate time of the year according to type and species. For example, spring blooming trees and shrubs will be pruned after flowering while summer blooming species will be pruned in winter or early spring.

2. All pruning shall be done in accordance with ANSI 300 Standards and International Society of Arboriculture (ISA). 1995. Tree Pruning Guidelines.

3. Groundcovers - Lirioipe, grasses and other groundcovers (i.e. euonymus, hypericum, etc.) shall be mowed (or trimmed as needed), once annually immediately after substantial winter kill or prior to spring growth whichever comes first. Height shall be as needed to maintain a uniform appearance. Periodic pruning of winter kill will be necessary to maintain a neat appearance of sensitive plant species (e.g. hypericum)

4. Perennials shall be deadheaded as needed to remove dead flowers and promote new flowering.

5. Vines shall be trained to their support structure and pruned as needed to establish proper form and to remove die-back.

**D. Insect and Disease Control**

All plantings will be monitored for infestation of insect or appearance of disease.

Once identified, chemical treatments will be applied. All applications will be performed under the supervision of a licensed Certified Pesticide Applicator.

**E. Hand Watering**

Contractor shall monitor all trees, shrubs and other plant material under his/her responsibility for proper moisture. This responsibility includes the routine monitoring, and reporting to Owner's Representative available plant moisture industry standard using moisture meters as appropriate. In the event drought conditions threaten the health of the landscape, Contractor shall propose appropriate measures to insure the health of the plant material. Costs associated with the installation of waterbags and/or hand watering shall be at the rates identified herein.

**4. CLEAN-UP**

**A. Grounds**

1. All grounds will be policed on a bi-weekly basis.

2. Major damage due to high winds, ice, snow, or other unpredictable acts of nature is not included. Major damage clean-up will be provided and charged on an hourly basis.

3. Leaf cleanup in beds and outlying natural areas is to be provided twice per year in the fall. Any major clean-up removal from property exceeding three (3) man-hours of labor will be billed on a time and material basis at normal hourly rates.

4. All plantings will be pruned at the appropriate time of the year according to type and species. For example, spring blooming trees and shrubs will be pruned after flowering while summer blooming species will be pruned in winter or early spring.

5. All pruning shall be done in accordance with ANSI 300 Standards and International Society of Arboriculture (ISA). 1995. Tree Pruning Guidelines.

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7. Perennials shall be deadheaded as needed to remove dead flowers and promote new flowering.

8. Vines shall be trained to their support structure and pruned as needed to establish proper form and to remove die-back.

**D. Insect and Disease Control**

All plantings will be monitored for infestation of insect or appearance of disease.

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9. All plantings will be pruned at the appropriate time of the year according to type and species. For example, spring blooming trees and shrubs will be pruned after flowering while summer blooming species will be pruned in winter or early spring.

10. All pruning shall be done in accordance with ANSI 300 Standards and International Society of Arboriculture (ISA). 1995. Tree Pruning Guidelines.

11. Groundcovers - Lirioipe, grasses and other groundcovers (i.e. euonymus, hypericum, etc.) shall be mowed (or trimmed as needed), once annually immediately after substantial winter kill or prior to spring growth whichever comes first. Height shall be as needed to maintain a uniform appearance. Periodic pruning of winter kill will be necessary to maintain a neat appearance of sensitive plant species (e.g. hypericum)

12. Perennials shall be deadheaded as needed to remove dead flowers and promote new flowering.

13. Vines shall be trained to their support structure and pruned as needed to establish proper form and to remove die-back.

**D. Insect and Disease Control**

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14. All plantings will be pruned at the appropriate time of the year according to type and species. For example, spring blooming trees and shrubs will be pruned after flowering while summer blooming species will be pruned in winter or early spring.

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17. Perennials shall be deadheaded as needed to remove dead flowers and promote new flowering.

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**D. Insect and Disease Control**

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Once identified, chemical treatments will be applied. All applications will be performed under the supervision of a licensed Certified Pesticide Applicator.

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19. All plantings will be pruned at the appropriate time of the year according to type and species. For example, spring blooming trees and shrubs will be pruned after flowering while summer blooming species will be pruned in winter or early spring.

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22. Perennials shall be deadheaded as needed to remove dead flowers and promote new flowering.

**NOTES:**

**1. UNDERGROUND UTILITY VERIFICATION**

Landscape contractor to verify location of underground utilities before beginning work.

**2. SOIL PREPARATION**

Where existing vegetation remains in areas to be seeded, eradicate existing vegetation by having a licensed spray technician apply an approved herbicide; i.e., glyphosate (Roundup®), or tilling the weeds into the soil. Good pre-seeding weed control may require spraying two applications of glyphosate (at least two weeks apart). Close mowing two weeks prior to spraying is recommended to stimulate weed growth. Glyphosate must be applied to vegetative growth in order to kill undesirable plants and their roots. The second application is needed only if the first application is insufficient.

Test soil qualified laboratory tests and amend with lime and fertilizer as needed. Achieve a pH of at least 6.0

For heavy compacted clay soils - Organic matter must be added in order to prevent the clay from hardening after rain events, to the point where emergent seedlings will be unable to push through the soil surface. Organic matter, such as straw, compost, mulch, leaf litter, etc., must be added in order to increase soil organics to at least 1%. The organics must be worked into the top-most 12" of soil prior to planting using a tiller, harrow, disk, or similar implement. Cultivating the top 12" of soil will aid in root development of emergent seedlings, and will allow some percolation of rain water that would otherwise run off the surface with little to no infiltration, likely carrying the seed away with it.

All plantings proposed on this site shall be underdrained. Substantial planting soil preparation/replacement shall be required for all shrub and groundcover beds including import of suitable soil.

Tracking slopes with mechanized equipment should be done perpendicular to fall line to minimize runoff and erosion.

See Tree Pit Detail for structural soil backfill, tree aeration and stabilization and deep root watering.

**3. IRRIGATION**

Irrigation shall be required for all shrub and groundcover beds shown on this plan including planters located under building cantilevers. A Design-Build system design shall be submitted to the landscape architect for review and approval prior to installation. Irrigation design shall provide high efficiency drip or spray irrigation to all tree and shrub areas. Turf areas are not proposed to be irrigated other than for grow-in purposes. Irrigation design shall incorporate a Root Watering System (RWS) capable of complete deep root watering of root balls. Irrigation Contractor shall be licensed as required by the State in which the work is to be conducted.

**4. PLANT MATERIAL STANDARDS**

All plant material and planting standards specified shall meet the minimum standards for nursery stock- ANSIZ60.1-2004 or the County whichever is stricter. Any material with evidence of disease or pest infestations will be rejected. All rework will be at the expense of the Contractor. Substitutions will be permitted only upon prior approval by the Landscape Architect or Owner's Representative. Contractor shall be responsible for furnishing all seed tags and plant tags affirming origin and species. Plant tags shall not be removed prior to final inspection and acceptance. Contractor is responsible for the health of all plant material for a minimum of 30 days following final acceptance. If contractor is awarded a contract for maintenance then he/she shall be responsible for the health and/or replacement of all material as set forth by the maintenance contract.

**5. MISCELLANEOUS NOTES - ANNUALS, MULCH & PLACEMENT OF PLANTS**

a. Landscape contractor shall submit a schedule of proposed plantings for all annual beds and planters providing for spring and fall plant rotations. Select plants to provide variety and unity. Submittal shall be made to Landscape Architect or Owner's Representative for approval prior to installation.

b. Tree placement and landscape bed layout to be approved by landscape architect prior to installation.

c. All disturbed areas are to be stabilized with lawn, plantings, or mulch.

d. Mulch around all plants as specified. See Landscape Planting Specifications

e. See SEEDING SPECIFICATIONS for seed mix and schedules.

f. See LANDSCAPE MAINTENANCE OUTLINE for additional specifications.

**6. ADDITIONAL SPECIFICATIONS**

The Specifications on this sheet are superceded by written specifications included in the "job specifications manual". In these cases, where conflicts are found to exist the Contractor shall bring the issue to the attention of the Landscape Architect for clarification. The higher level specification shall prevail.

7. All Tree placements conform to the NCDOT Guidelines for Planting Within Highway Right-of-Way.

**SEEDING SPECIFICATIONS AND SCHEDULES ABBREVIATED - See Specifications Sections 32-9200 & 32-9219 for additional requirements**

**Temporary Seeding:**

All areas disturbed by construction will be stabilized with temporary seeding immediately following grading. Seeding will comply with the standards and specifications of the latest edition of the Erosion and Sediment Control Regulations for the State or jurisdiction in which the project is located. Seeded areas will be maintained in keeping with accepted practices and care.

**Permanent Seeding:**

**TURF AREAS**

August 15th - April 1st

Cool Season Turf Grass - Seed with Kentucky 31 Fescue 100 lbs/ac + 75 lbs/ac Creeping Fescue (Rubra rubra) + Kentucky Bluegrass 10 lbs/ac; straw and tack all newly seeded areas not hydro seeded.

Sod - as noted below

April 1st - May 1st

Cool Season Turf Grass - Seed with Kentucky 31 Fescue 100 lbs/ac + 75 lbs/ac Creeping Fescue (Rubra rubra) + Kentucky Bluegrass 10 lbs/ac; straw and tack all newly seeded areas not hydro seeded.

Sod - as noted below

May 1st - August 15th

Warm Season Turf Grass - Sunsport Improved Bermuda - 3 lbs/1,000 sf

Sod - as noted below

**SOD AREAS**

Empire or El Toro Zoysia Sod shall be installed in all areas shown or noted as sod. Contractor shall be responsible for handwatering sod until established where no irrigation is proposed. If the required installation falls within calendar dates when warm season sod is dormant, then contractor shall provide temporary seeding (K-31 Fescue) and shall delay sod installation until such time as warm season sod can be installed. Sod and seeding shall extend to curb line and all disturbed areas.

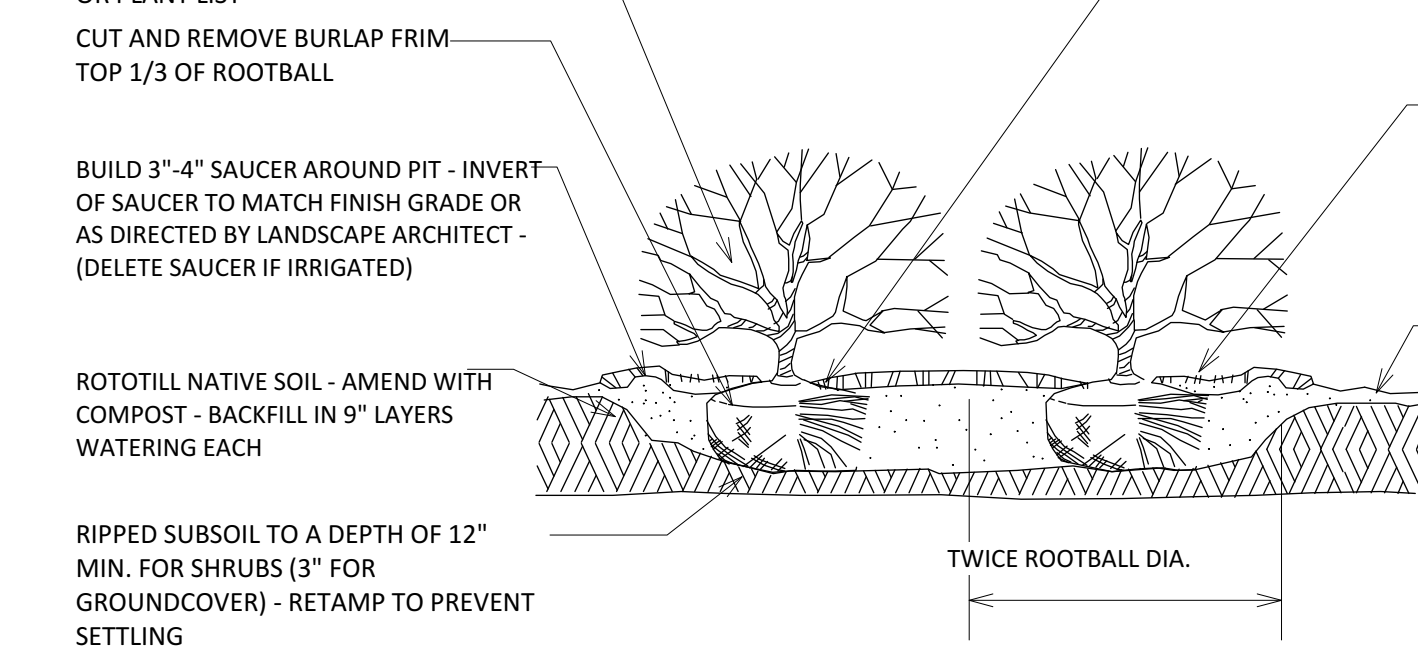
**General Stabilization and Seeding Notes**

- Prep and seed all areas disturbed by construction that are not seeded for Steep Slopes, Native Grass Areas or Wildflower Seed Areas, with Warm Season or Cool Season turf grasses as specified above.

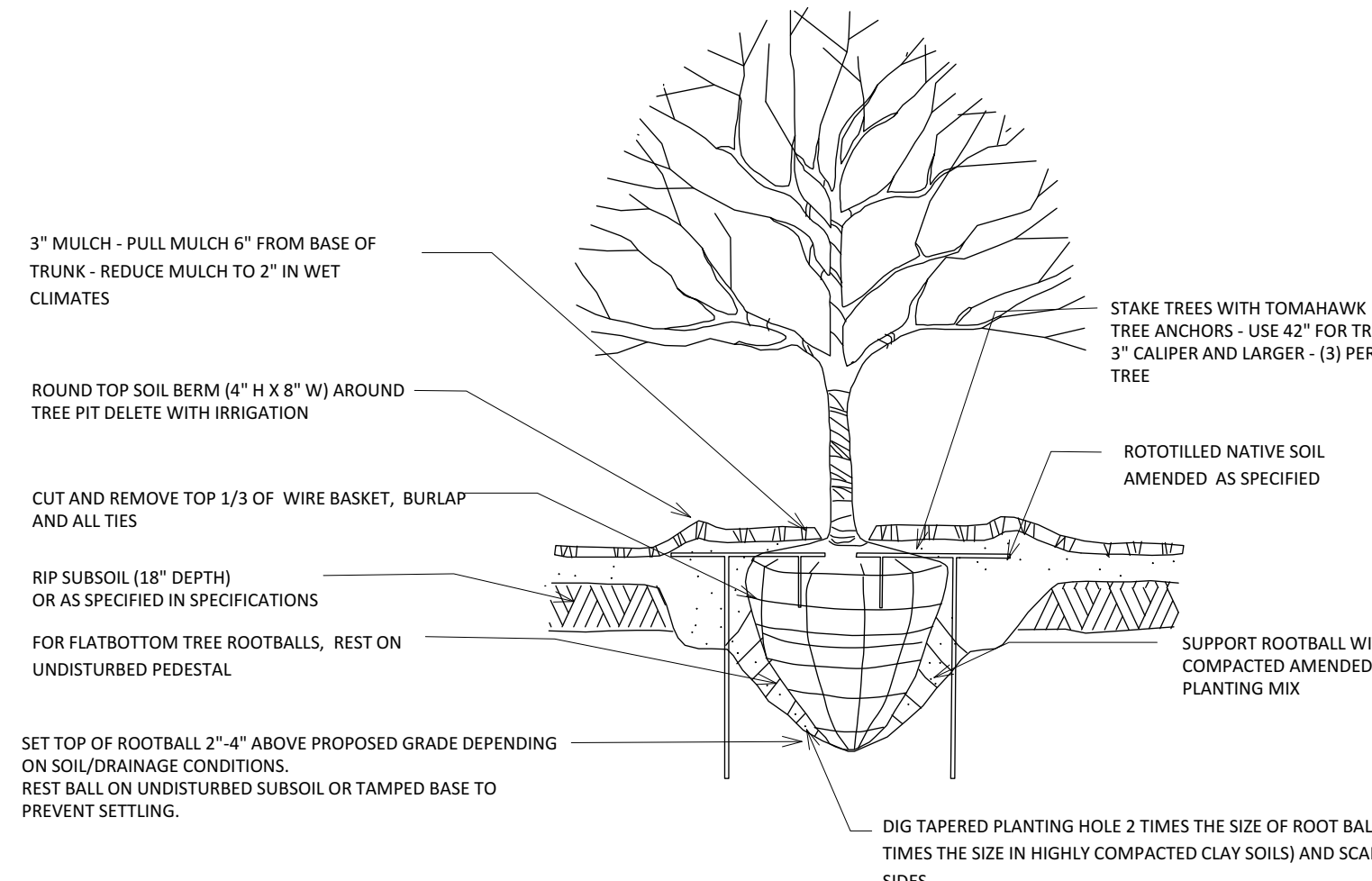
- Do not cover seed more than 1/4 inch

- See complete Landscape Specifications for additional soil prep and seeding requirements.

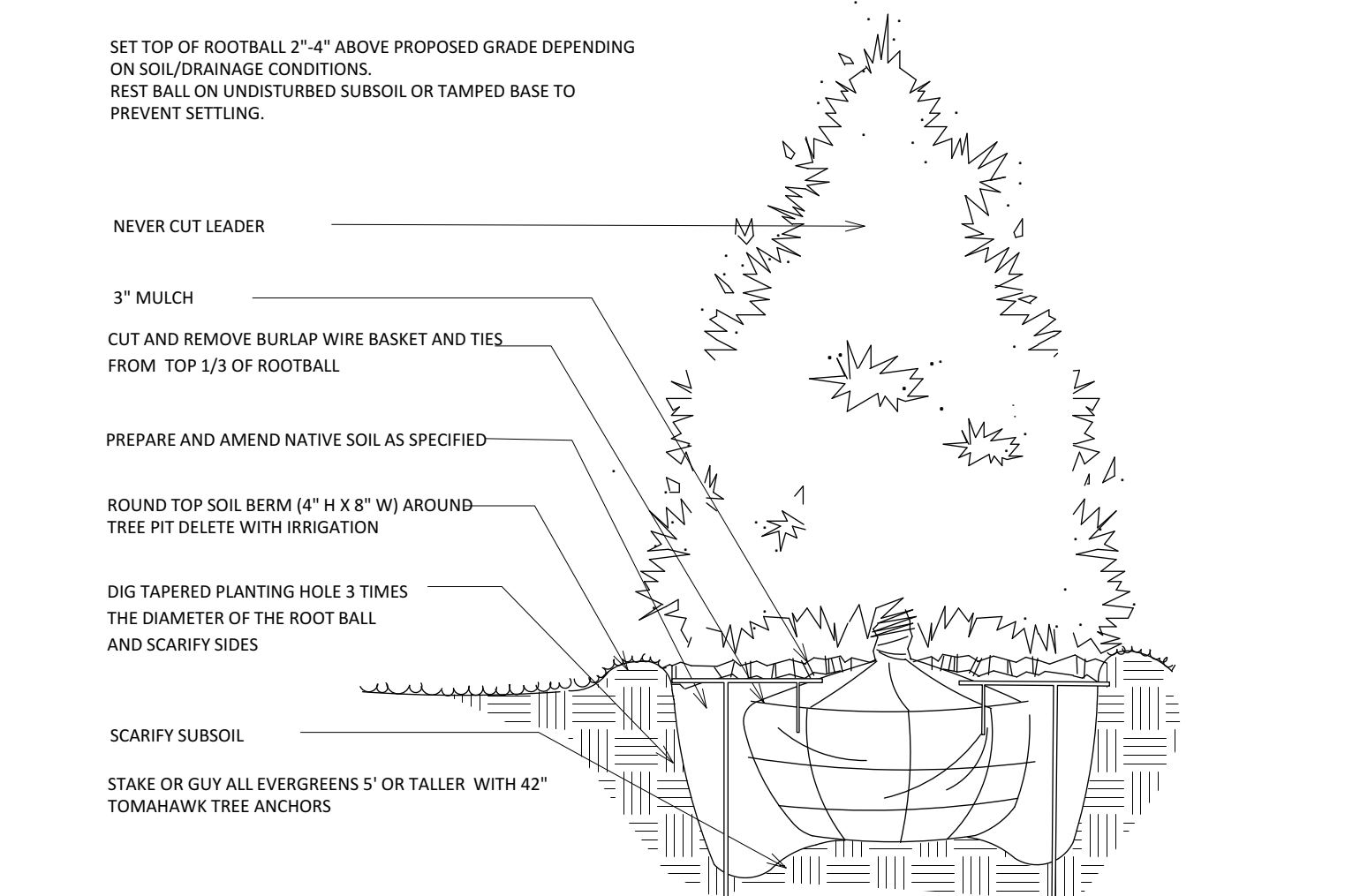
SPACE PLANTS AS SHOWN ON PLAN OR PLANT LIST  
CUT AND REMOVE BURLAP FRIM TOP 1/3 OF ROOTBALL  
BUILD 3"-4" SAUCER AROUND PIT - INVERT OF SAUCER TO MATCH FINISH GRADE OR AS DIRECTED BY LANDSCAPE ARCHITECT - (DELETE SAUCER IF IRRIGATED)  
ROTOTILL NATIVE SOIL - AMEND WITH COMPOST - BACKFILL IN 9" LAYERS WATERING EACH  
RIPPED SUBSOIL TO A DEPTH OF 12" MIN. FOR SHRUBS (3" FOR GROUNDCOVER) - RETAMP TO PREVENT SETTLING



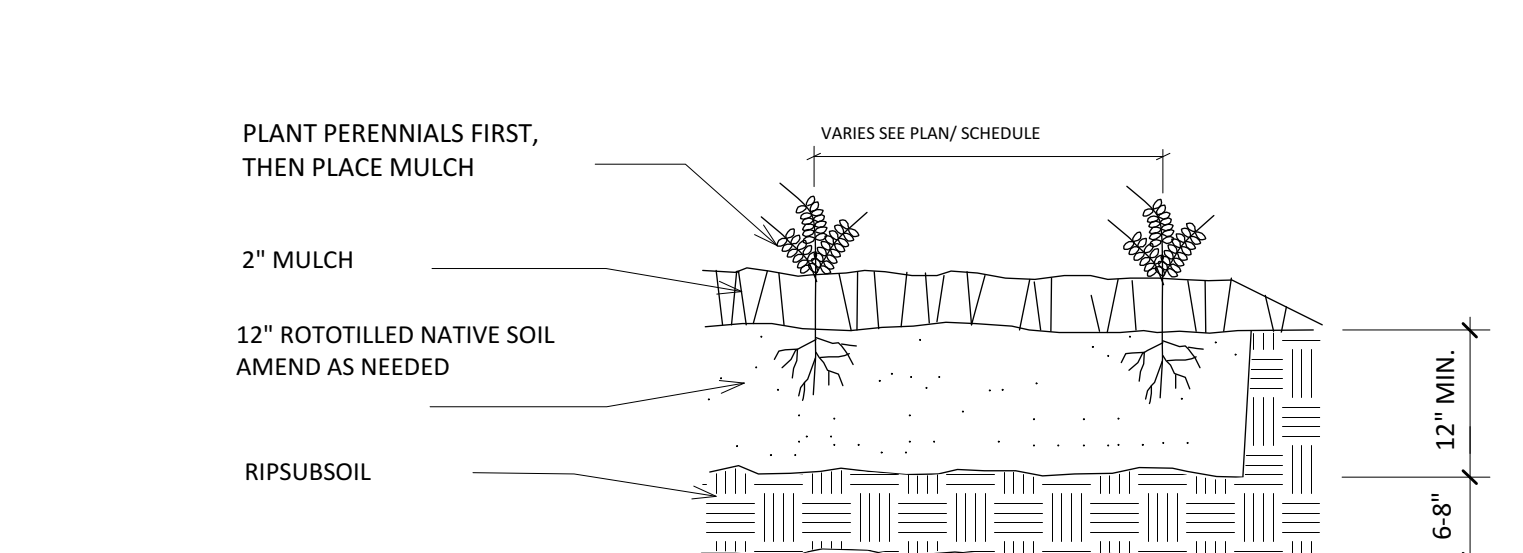
**3 SHRUB PLANTING AND GROUNDCOVER PLANTINGS**  
LA-1.1 N.T.S.



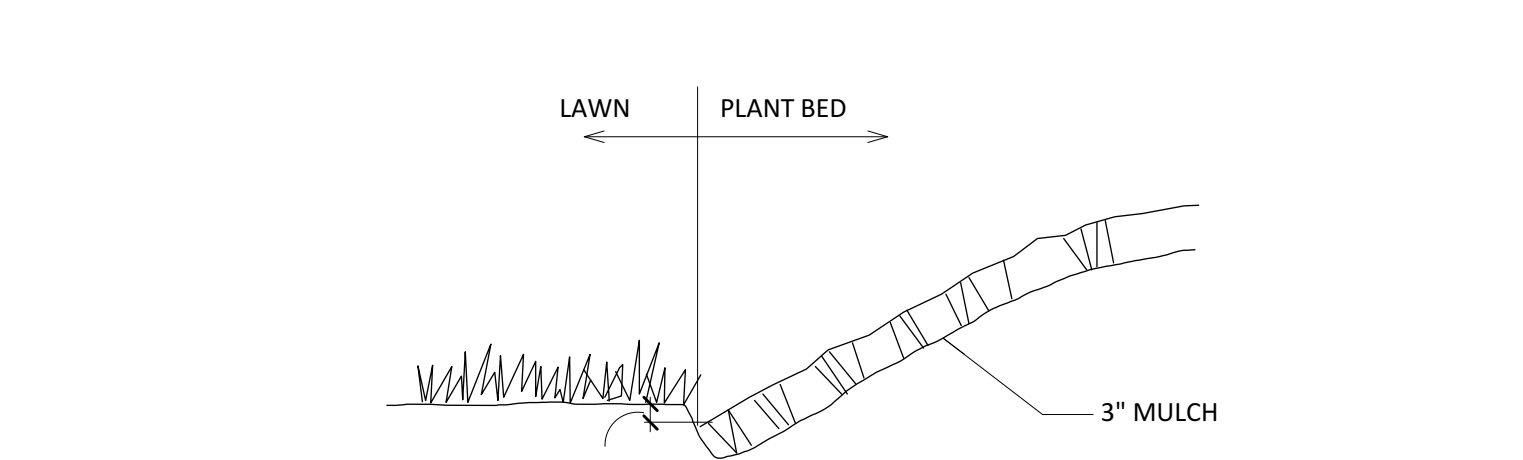
**1 TREE PLANTING**  
LA-1.1 N.T.S.



**2 EVERGREEN TREE PLANTING**  
LA-1.1 N.T.S.



**4 PERENNIAL PLANTING**  
LA-1.1 N.T.S.



**5 MULCH EDGE**  
LA-1.1 N.T.S.

NOTE: PINE STRAW MULCH MAY BE PROHIBITED WITHIN CLOSE PROXIMITIES OF BUILDINGS IN CERTAIN JURISDICTIONS. CONSULT CURRENT LOCAL ORDINANCES.

Principal Office:  
1450 Environ Way  
Chapel Hill, NC 27517  
Virginia Office:  
274 Bolecourt Court  
Boydton, Virginia 23917  
252.213.9591  
stmlandplan.com

**SCOTT MURRAY**  
LAND PLANNING, INC.

Landscape Architecture | Environmental Design | Project Management

Project Name

**The Station at East 54**  
1003 S. Hamilton Rd.  
Chapel Hill, NC 27517  
PIN # 9798-34-0950

**Planting Details & Maintenance Schedule**

Owner/Developer:  
**East West Partners Management Co. Inc.**  
1450 Environ Way  
Chapel Hill, NC 27517

Engineering and Stormwater Consultant:  
**MCADAMS**  
P.O. Box 14005  
Research Triangle Park  
NC 27709  
2905 Meridian Parkway  
Durham, NC 27713

No. Date: Issue Notes:

*Preliminary Design Drawings*  
*Not Approved For Constuction*

Design Firm:  
**Scott Murray Land Planning, Inc.**  
1450 Environ Way Chapel Hill, NC 27517  
252-213-9501 434-889-2925 (fax)  
www.stmlandplan.com  
smurray@stmlandplan.com

CAD File:

Scale:  
as shown

Date:  
Dec. 11, 2015

Drawn By:  
STM

Drawing No.:  
na

**LA-1.1**  
of

This Plan Sheet contains abbreviated Specifications for Plan Approval. Reference accompanying Specifications noted below for additional requirements for landscape installation and maintenance.

Section 32-9200 Turf & Grasses  
Section 32-9213 Final Grading & Soil Preparation  
Section 32-9215 Planting Soils  
Section 32-9219 Seeding  
Section 32-9300 Planting  
Maintenance Proposal (sample)