Steps toward Sustainability

Plant Selection

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General Concepts

- Know The Site
- Soils
- Plans and Construction Documents
- General Planting Practices
- Plant Selection—Right plant in the right place
Know The Site

- Who is your audience?
- What are you trying to achieve?
- What is your end goal?
- Fight with the site or work with conditions?
- Who is taking care of it?
Who is your audience?
Private or Public
Who is your audience?

Walking or driving?
Park, apartment, restoration habitat, right of way, etc
Who is your audience?

Maintenance Expectations:
Low Maintenance or Highly Manicured?
What to achieve and what end goal?

Immersion experience or focal point?
What to achieve and what end goal?

Arboretum feel or gardens?
What to achieve and what end goal?

A place to impress or a place to relax?
Fight with the site or work with conditions?

Rocky? Sloped?

Water quality and availability?

Wetland? Dry or flat?

Above or below ground utilities?
Fight with the site or work with conditions?

- Potential microclimate?
- Competing vegetation?
- Windy?
- Exposure? N, S, E, or W?
Who is taking care of it?
Soils

Knowledge of native soil

Fill needed?

Construction compaction?

Contamination?
Soils

Drainage

Amendment Needed?

Soil tests

How plants and soil interact
Plans and Construction Documents

- Sometimes more is needed than standard planting page
  - ANLA standards for selection and spacing
  - ISA planting specifications
PLANTING NOTES:

1. CONTRACTOR SHALL STAKE OUT ALL INFORMAL TREE LOCATIONS IN FIELD FOR REVIEW BY THE LANDSCAPE ARCHITECT PRIOR TO PLANTING. L.A. RESERVES THE RIGHT TO ADJUST PLANTS TO EXACT LOCATION IN FIELD.

2. PLANTING BEDS SHALL BE STAKED FOR REVIEW BY LANDSCAPE ARCHITECT PRIOR TO EXCAVATION.

3. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UNDERGROUND UTILITIES, PIPES, STRUCTURES, AND LINE RUNS IN THE FIELD PRIOR TO THE INSTALLATION OF ANY PLANT MATERIAL.

4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ADVISE THE LANDSCAPE ARCHITECT OF ANY CONDITION FOUND ON THE SITE WHICH PROHIBITS INSTALLATION AS SHOWN ON THESE DRAWINGS.

5. TREES OVERHANGING WALKS AND PARKING SHALL HAVE A MINIMUM CLEAR TRUNK HEIGHT OF SEVEN (7) FEET. TREES OVERHANGING PUBLIC STREET PAVEMENT DRIVE ASILLES AND FIRE LINES SHALL HAVE A MINIMUM CLEAR TRUNK HEIGHT OF FOURTEEN (14) FEET.

6. ALL PLANT MATERIAL SHALL BE MAINTAINED IN A HEALTHY AND GROWING CONDITION AND MUST BE REPLACED WITH PLANT MATERIAL OF SAME VARIETY AND SIZE IF DAMAGED, DESTROYED, OR REMOVED.

7. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR FINISH GRAVING AND REMOVAL OF DEBRIS PRIOR TO PLANTING IN ALL AREAS.

8. FINAL FINISH GRAVING SHALL BE REVIEWED BY THE LANDSCAPE ARCHITECT. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL TOPSOIL REQUIRED TO CREATE A SMOOTH CONDITION PRIOR TO PLANTING.

9. ALL QUANTITIES ON THIS PLAN ARE FOR INFORMATION ONLY. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE FULL COVERAGE IN ALL PLANTING AREAS AS SPECIFIED IN THE PLANT SCHEDULE.

10. LANDSCAPE CONTRACTOR TO PROVIDE STEEL EDGING BETWEEN ALL PLANTING BEDS AND LAWN AREAS.

11. AN AUTOMATIC IRRIGATION SYSTEM SHALL BE PROVIDED FOR ALL PLANTING AREAS. OVERSPRAY ON STREETS AND WALKS IS PROHIBITED.

12. PLANT MATERIAL SHALL BE MEASURED AND SIZED ACCORDING TO THE LATEST EDITION OF AMERICAN HORTICULTURAL STANDARD.

13. ALL PLANT MATERIAL SHALL CONFORM TO THE SPECIFICATIONS AND SIZES GIVEN IN THE PLANT LIST AND SHALL BE NURSERY GROWN IN ACCORDANCE WITH THE U.S.A. STANDARD FOR NURSERY STOCK LATEST EDITION AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS. ANY PLANT SUBSTITUTION SHALL BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO PURCHASE.

14. CONTRACTOR IS REQUIRED TO PERFORM A PERCOLATION TEST FOR EACH TREE PIT PRIOR TO INSTALLATION. IF DRAINAGE DOES NOT OCCUR WITHIN 24 HOURS THE CONTRACTOR WILL BE REQUIRED TO PROVIDE A GRAVEL SUMP, FILTER FABRIC, AND STAND PIPE. ALL SUMPS SHOULD BE INCLUDED IN THE BASE BID AND PROVIDED AS A DEDUCT ALTERNATE IF NOT REQUIRED AFTER THE PERCOLATION TEST IS PERFORMED.

15. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ANY COORDINATION WITH OTHER CONTRACTORS ON SITE AS REQUIRED TO ACCOMPLISH ALL PLANTING OPERATIONS.

16. The Contractor shall be responsible for making himself familiar with all underground utilities and structures. The Contractor shall take sole responsibility for any cost incurred due to damage of said utilities or structures.

17. Do not willfully proceed with planting operations as designed when it is obvious that unknown obstructions and/or grade differences exist that may not have been known during the design process. Such conditions shall be immediately brought to the attention of the Landscape Architect. The Contractor shall assume full responsibility for all necessary revisions due to failure to give such notification.

3. The Contractor shall be responsible for any coordination with subcontractors as required to accomplish his planting operations.

4. The Contractor is to receive the on-grade portion of the site at ±1/10 of a foot. The Contractor shall obtain a letter of grade certification from the Construction Manager prior to beginning work.

5. Refer to the specifications for planting requirements, materials and execution.

6. All trees shall be subject to tagging by the Landscape Architect and/or owner at a nursery selected by the Contractor or at the discretion of the Landscape Architect.

7. Final location of all plant materials shall be subject to the approval of the Landscape Architect prior to digging any holes. Contractor is to do the following before beginning planting operations:

   Shrubs - lay out the actual containers on site before digging holes.

   Trees - chalk or stake the locations before digging holes. Any tree planted without its final location approved by the Landscape Architect may be requested to be relocated at the sole expense of the Contractor.

   Container Pots - place all plants (still in original containers) specified for one (1) prototypical container pot from each container pot type.

8. The Contractor shall notify the Landscape Architect at least 72 hours in advance prior to commencement of work to coordinate project observation schedules.

9. If conflicts arise between the actual size of areas on the site and the Drawings, contact the Landscape Architect for resolution.

10. It is the Contractor’s responsibility to furnish plant material free of pests or plant diseases. Pre-selected or “Landscape Architect - tagged” plant material must be inspected by the Contractor and certified pest and disease free. It is the Contractor’s obligation to warrant all plant material per the specifications.

11. Groundcovers and shrubs are to be triangularly spaced unless otherwise indicated on the Drawings.

12. All trees within a species shall have matching form, unless noted otherwise on the Planting Plan.

13. All planting areas in newly constructed or filled areas, excavated area (e.g. west side of parking facility), and in planting cutouts within paved area (e.g. woodland court) shall have a minimum 24” depth acceptable topsoil.

14. All planting areas in existing wooded areas shall have existing topsoil excavated with care, only as needed, to break up the soil for establishment of new plants. Top dress these areas per specifications (section 02900).

15. Hand excavation required within root zone of existing trees.

16. All planting areas (excluding turf and seeded areas) are to be mulched with pine straw.

17. Refer to specifications sections 02900 for additional requirements.
Plans and Construction Documents

• Review planting specs per site—both contractor and customer & visually inspect on-site work

5. TREES OVERHANGING WALKS AND PARKING SHALL HAVE A MINIMUM CLEAR TRUNK HEIGHT OF SEVEN (7') FEET. TREES OVERHANGING PUBLIC STREET PAVEMENT DRIVE AISLES AND FIRE LINES SHALL HAVE A MINIMUM CLEAR TRUNK HEIGHT OF FOURTEEN (14') FEET.

This planting note was on the specs for a bed being installed between a walkway and a lawn area…no parking or trees nearby
General Planting Practices

- Layout/stake out plants and field adjust
- Pick quality plant material
- Correct planting depth & mulch depth
- Don’t get sloppy
Plant Selection Guide

• Site Characteristics
  – Light Exposure
    • Can change over time
  – Water Availability
  – Hardiness Zone
  – Soil Type
    • Drainage, Compaction
  – Protected vs. Unprotected
    • Temperature
    • Wind
Plant Selection Guide

• Plant’s Cultural Requirements
  – Water Needs
    • Establishment Period
  – Light Requirement
  – Ultimate Size
Plant Selection Guide

• Maintenance Requirements
  – Who is doing the maintenance?

• In general, Lowest Maintenance:
  – Grasses
  – Trees
  – Shrubs
Plant Selection Guide

• In general, highest maintenance:
  – Annuals
  – Seeds
  – Vegetables
  – Fruit Trees
  – Vines

• It depends
  – Lawn
  – Perennials
  – Ground Covers
• Pest and Disease Tolerance: Qualities that result in a plant being less damaged than a plant without those qualities

• Happens in two ways:
  – Decrease pest abundance
  – Increase damage threshold level of plant
Plant Selection Guide

• Advantages to Using Pest and Disease Tolerant Plants
  – Inexpensive
  – Decreases use of pesticides
  – Increases species diversity

• Find in seed catalogues or cooperative Extensions publications
Plant Selection Guide

- Multi-Season Interest
  - Flowers
  - Fruit
  - Bark
  - Fragrance
  - Edible
  - Wild life appeal
  - Texture
  - Habit
    - Shape
    - Branches
  - Foliage
    - Spring
    - Fall
Plant Selection Guide

- **Beneficials:** Behaviors that help us to control insects that damage our gardens
  - Predators
  - Parasitoids
  - Pollinators
  - Soil Builders
Plant Selection Guide

• How to Attract Beneficials
  – Diversity
  – Shelter/Habitat
  – Food
    • Nectar/Pollen
    • Other Insects (Prey)
  – Water
  – Avoidance of Pesticides
Plant Suggestions

Trees
Shrubs
Perennials
NYSSA SYLVATICA ‘WILDFIRE’
*BLACK TUPELO*
HALESIA TETRAPTERA
*CAROLINA SILVERBELL*
AMELANCHIER X GRANDIFLORA ‘AUTUMN BRILLIANCE’
*APPLE SERVICEBERRY*
CHIMONANTHUS PRAECOX ‘GRANDIFLORUS’
*WINTERSWEET*
CRATAEGUS VIRIDIS ‘WINTER KING’
*WINTER HAWTHORN*
LINDERA OBTUSILOBA
*JAPANESE SPICEBUSH*
ILEX LATIFOLIA
*LUSTERLEAF HOLLY*
LEUCOPHYLLUM FRUTESCENS
*BAROMETER BUSH*
NEVIIUSIA ALABAMENSIS
*ALABAMA SNOW WREATH*
VIBURNUM NUDUM ‘WINTERTHUR’
*POSSUMHAW VIBURNUM*
CALLICARPA AMERICANA ‘WELCH’S PINK’
*AMERICAN BEAUTYBERRY*
VACCINIUM ASHEI
*RABBITEYE BLUEBERRY*

‘ALAPaha’
CALLIRHOE INVOLUCRATA
*WINE CUPS*
HEUCHERA VILLOSA
*CORAL BELLS*

‘TIRAMISU’

‘MOCHA’

‘CITRONELLE’

‘PLUM PUDDING’

‘CARAMEL’

‘AUTUMN BRIDE’
SOLIDAGO RUGOSA ‘FIREWORKS’
*GOLDENROD*
PANICUM VIRGATUM ‘NORTHWIND’
*SWITCHGRASS*
SILPHIUM PERFOLIATUM
*CUP PLANT*
VERONICA STRUM VIRGINICUM ‘ALBUM’
*CULVER’S ROOT*

‘FASCINATION’
THANK YOU