

PART 1 – GENERAL**1.1 RELATED SECTIONS**

- A. Division 01 - General Requirements
- B. 31 20 00 - Earth Moving
- C. 32 13 13 - Concrete Paving
- D. 32 84 00 - Irrigation
- E. 32 91 00 - Planting Preparation
- F. 32 92 00 - Lawns and Grasses
- G. 32 94 00 - Planting Irrigation
- H. 33 11 00 - Water Utilities
- I. 01 33 00 - Submittal Procedures
- J. 01 45 00 - Quality Control

1.2 REFERENCES, STANDARDS, AND CODES

- A. American National Standards Institute (ANSI)
 - 1. ANSI Z60.1 - American Standard for Nursery Stock
- B. American Society for Testing and Materials (ASTM)
 - 1. ASTM D5268 - Standard Guide for Planting Design and Installation
 - 2. ASTM D5970 - Standard Guide for Nursery Stock Quality
- C. American Society of Landscape Architects (ASLA)
- D. International Society of Arboriculture (ISA)
- E. U.S. Department of Agriculture (USDA) Plant Hardiness Zone Map
- F. Occupational Safety and Health Administration (OSHA) Standards
- G. Local Municipal Codes and Ordinances
- H. ANSI A300 - Tree Care Operations - Tree, Shrub, and Other Woody Plant Maintenance Standards
- I. ANSI Z133 - Safety Requirements for Arboricultural Operations

1.3 DEFINITIONS

- A. Plants - Includes trees, shrubs, ground covers, vines, grasses, and perennials specified for the project.
- B. Nursery Stock - Plants grown and maintained under specified standards for transplanting.
- C. Planting Soil - Soil or planting medium prepared or amended for plant installation.

1.4 QUALITY ASSURANCE

- A. All plants shall conform to ANSI Z60.1 standards for nursery stock size, quality, and grading.
- B. Plants shall be nursery grown, healthy, vigorous, and free of disease, pests, and defects.

- C. Inspection of plants may be performed by an independent certified arborist or landscape architect prior to delivery and installation.
- D. Plant installation shall comply with ANSI A300 standards and local regulations.
- E. Contractor shall maintain all plants in a healthy, growing condition from time of delivery through final acceptance.
- F. Provide evidence of compliance with applicable codes and standards upon request.

1.5 SUBMITTALS

A. Action Submittals

- 1. Plant List - Submit a complete list of plants including botanical and common names, quantities, sizes, and source nurseries.
- 2. Samples - Submit representative samples of plant tags, labels, and root ball wrapping materials.
- 3. Planting Schedule - Detailed schedule indicating installation sequence and timing.
- 4. Manufacturer's Data - For all planting materials, amendments, and protective devices.
- 5. Maintenance Schedule - Provide detailed maintenance instructions including watering, fertilizing, pruning, and inspection.

B. Informational Submittals

- 1. Certification of compliance with ANSI Z60.1 and other applicable standards.
- 2. Warranty documentation.
- 3. Inspection reports from certified arborist or landscape architect.
- 4. Material safety data sheets (MSDS) for fertilizers, pesticides, and soil amendments.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver plants in a healthy condition with root balls or containers intact, securely wrapped and labeled.
- B. Protect plants from damage during transportation; avoid exposure to excessive heat, cold, or drying winds.
- C. Store plants in a shaded, well-ventilated area with adequate moisture until installation.
- D. Maintain adequate watering and protection against mechanical damage, pests, and disease during storage.
- E. Handle plants by root ball or container only; do not lift by trunk, stems, or branches.

1.7 WARRANTY

- A. Provide a minimum warranty period of one (1) year from date of final acceptance.
- B. Warranty shall cover replacement or restoration of plants that fail to thrive, die, or become severely damaged.

- C. Warranty shall include labor, materials, and maintenance necessary for replacement plants.
- D. Contractor shall guarantee plant establishment and health during the warranty period.
- E. Warranty does not cover damage caused by acts of God, vandalism, or neglect by the Owner.

PART 2 – PRODUCTS

2.1 PLANTS

- A. General Requirements
 - 1. Provide plants that conform to the sizes, species, and quantities specified on the drawings and in the plant list.
 - 2. All plants shall be nursery grown, acclimated to local climate, and free from disease, pests, and mechanical injury.
 - 3. Plants shall have well-developed branch and root systems.
- B. Trees
 - 1. Provide trees meeting or exceeding ANSI Z60.1 size and quality requirements for specified caliper or height.
 - 2. Root balls shall be wrapped in burlap or wire basket unless otherwise specified.
- C. Shrubs and Ground Covers
 - 1. Provide container-grown or balled and burlapped stock with healthy root systems.
- D. Vines and Climbers
 - 1. Provide plants suitable for site conditions and support structures specified.
- E. Grasses and Perennials
 - 1. Provide plants grown in containers or plugs, acclimated to site conditions.

2.2 SOILS AND AMENDMENTS

- A. Planting Soil
 - 1. Provide planting soil mix complying with project soil analysis recommendations.
 - 2. Mix shall be free of debris, toxic substances, and foreign matter.
- B. Soil Amendments
 - 1. Provide organic compost, peat moss, sand, or other amendments as specified.
 - 2. Amend soil to improve texture, drainage, fertility, and pH as recommended by soil tests.

2.3 MULCHES

- A. Provide organic mulch such as shredded bark, wood chips, or pine needles.
- B. Mulch shall be free of weed seeds, toxic materials, and shall comply with local regulations.
- C. Apply mulch uniformly at specified depth.

2.4 FERTILIZERS AND PLANTING AIDS

- A. Provide fertilizers formulated for new planting applications with slow-release characteristics.
- B. Provide mycorrhizal inoculants, soil conditioners, or other planting aids as specified.

2.5 PLANT PROTECTION DEVICES

- A. Provide tree stakes, guying, wrapping, and guards as needed to protect plants during and after installation.
- B. Materials shall be durable, weather-resistant, and non-damaging to plants.

2.6 MANUFACTURERS

- A. Plants and Materials Suppliers
 - 1. Proven Winners®
 - 2. Monrovia Nursery Company
- B. Frank Schmidt & Son Co.
 - 1. Ball Horticultural Company
 - 2. Arbor Day Foundation Nurseries
 - 3. Local Certified Native Plant Nurseries (as approved)
- C. Soil Amendments and Fertilizers
 - 1. Espoma Organic Products
 - 2. Scotts Miracle-Gro Company
 - 3. BioTerra Soil Products
- D. Mulches
 - 1. Northwest Bark
 - 2. Pine Bark Nuggets Inc.

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Verify that grading, drainage, and irrigation systems are completed and functional prior to planting.
- B. Inspect planting areas for compliance with specified soil preparation requirements.
- C. Notify Architect or Landscape Architect of any discrepancies or conditions detrimental to plant growth.

3.2 PREPARATION

- A. Prepare planting soil as specified in Section 32 91 00 - Planting Preparation.

- B. Loosen subgrade and incorporate soil amendments thoroughly.
- C. Verify moisture content of planting soil is adequate for planting operations.

3.3 PLANT INSTALLATION

- A. Planting Procedures
 - 1. Plant trees, shrubs, and other plants in accordance with ANSI Z60.1 and ASTM D5268 guidelines.
 - 2. Dig holes large enough to accommodate root systems without crowding or deformation.
 - 3. Place plants plumb and at proper depth; backfill with amended planting soil.
 - 4. Water plants thoroughly after planting to eliminate air pockets.
- B. Tree Installation
 - 1. Remove wire baskets and burlap from root balls as much as possible without disturbing roots.
 - 2. Stake and guy trees as required to provide stability.
- C. Shrub, Ground Cover, and Perennial Installation
 - 1. Space plants as indicated on drawings and per nursery recommendations.
 - 2. Firm soil around roots to ensure good contact without compaction.
- D. Mulching
 - 1. Apply mulch in planting beds and around trees to specified depth, avoiding direct contact with stems or trunks.
- E. Fertilization
 - 1. Apply starter fertilizer in planting holes or as top dressing per manufacturer's instructions.

3.4 PLANT PROTECTION AND MAINTENANCE

- A. Protect plants from damage due to construction activities, pests, and environmental extremes.
- B. Provide temporary watering and irrigation as required to establish plants.
- C. Prune plants only as necessary to remove dead or damaged parts; do not over-prune.
- D. Maintain plants in a healthy growing condition until final acceptance.
- E. Remove all planting debris and unused materials from site.

3.5 FINAL ACCEPTANCE

- A. Final inspection will occur after the warranty period to verify plant health and establishment.
- B. Replace plants that have died or failed to thrive as specified in the warranty.
- C. Provide documentation of maintenance and replacement activities.

End of Section