

SPECIFICATIONS - DETAILED PROVISIONS
Section 02950 - Trees, Plants, and Ground Covers

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**SECTION 02950
TREES, PLANTS, AND GROUND COVERS**

PART 1 - GENERAL

1.01 SUMMARY

- A. Work Outline. Provide trees, plants, and ground cover as indicated on the drawings, specified herein, and needed for a complete and proper installation.
- B. Related Work
 - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.
 - 2. Section 02810: Irrigation system.

1.02 SUBMITTALS

- A. Provisions. Comply with pertinent provisions of Section F-30.
- B. Product Data. Within 60 calendar days after the Contractor has received the Owner's Notice to Proceed, you must submit: Complete materials list of items proposed to be provided under this Section; complete data on source, size, and quality; and sufficient data to demonstrate compliance with the specified requirements.
- C. Manual. Upon completion of the work of this section, and as a condition of its acceptance, deliver to the Owner two copies of a manual compiled in accordance with the provisions of section 02970 of these specifications.
- D. Certificates. Owner requires certificates required by law to accompany shipments. Upon completion of the installation, deliver certificates to the Owner.

1.03 QUALITY ASSURANCE

- A. Skilled Workers. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

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- B. Standards. Plants and planting material must meet or exceed the specifications of Federal, State and County laws requiring inspection for plant disease and insect control. Quality and size must comply with current edition of "Horticultural Standards" for number one nursery stock as adopted by American Association of Nurserymen. All Plants must be true to name, with one of each bundle or lot tagged with the name and size of the plants in accordance with standards of practice of American Association of Nurserymen. In all cases, botanical names take precedence over common names.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Delivery. Deliver products to the job site in the manufacturer's original containers or packing with labels intact and legible. Maintain materials in original packing until time of use.
- B. Removal and Replacement. Immediately remove from the site plants which are not true to name, and materials which do not comply with the specified requirements, and promptly replace with plants and materials meeting the specified requirements.

PART 2 - PRODUCTS

2.01 FERTILIZER

Provide commercial balanced 11-8-4 fertilizer delivered to the site in bags labeled with manufacturer's guaranteed analysis.

2.02 SOIL AMENDMENT

- A. Green Waste Material. Provide Green Waste Material or an equivalent soil amendment.

2.03 MULCH

- A. Size and Type. Provide standard size ground bark chips 1/4" to 1" in size, mill-run chips.

2.04 TREE STAKES

Unless otherwise indicated on the drawings, provide cedar stakes, or pressure treated wood, construction grade, rough sawn, 2" x 2" x 8 ft. long.

2.05 GRASS SEED

- A. General. Provide grass seed which is: Free from noxious weed seeds, and recleaned; Grade A recent crop; Treated with fungicide at time of mixing; Delivered to the site in sealed containers with dealers guaranteed analysis.
- B. Type and Mix. Per schedules on drawings.

2.06 PLANT MATERIALS

Provide the plant materials shown on the schedules on the drawings.

2.07 OTHER MATERIALS

Provide other materials, not specifically described but required for a complete and proper installation, as selected by the contractor and approved by the Owner.

PART 3 - EXECUTION

3.01 SURFACE CONDITIONS

- A. Unsatisfactory Conditions. Examine the areas and conditions under which work of this section will be performed. Correct conditions detrimental to timely and proper completion of the work. Do not proceed until unsatisfactory conditions are corrected.

3.02 SPREADING TOPSOIL

- A. Finish Grading. Finish grading will be performed under Section 02210.
- B. Fine Grading. Upon completion of finish grading, perform fine grading required in planting areas, using soil from site.
- C. Raised Planter Beds. Backfill with a mixture consisting of two parts topsoil and one part specified soil amendment, by volume. Place the backfill mixture in layers not to exceed 8" uncompacted thickness. Compact each layer by thorough saturation with water to prevent future settlement.

3.03 PLANTING TREES AND SHRUBS

- A. General. Plant nursery stock immediately upon delivery to site and approval by the Owner except that, if this is not feasible, heel-in all bare root and balled materials with damp soil and protect from sun, wind and frost. Regularly water nursery stock in containers, and place them in a cool area protected from the elements.

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- B. Excavating. For shrubs in one gallon containers, dig a hole 12" in diameter and 12" deep. For shrubs and trees in five gallon containers, dig a hole 20" in diameter and 18" deep. For trees in 15 gallon containers, dig a hole 30" in diameter and 30" deep. For holes deeper than 12", probe by hand to check for any in-place utilities.
- C. Planting
1. Fill Holes with backfill mixture consisting of two parts soil taken from the hole and one part specified soil amendment, by volume. Fill to proper height to receive plant, and thoroughly tamp the mixture before setting the plant.
 2. Set plant in upright position in the center of the hole and compact the backfill mixture around the ball or the roots.
 3. Thoroughly water each plant when the hole is 2/3 full. After watering, tamp the soil in place until the surface of the backfill is level with the surrounding area.
 4. Build up a temporary watering basin around the base of each tree and shrub, unless otherwise directed. No basins around trees and shrubs in turf areas or in raised planter beds.
- D. Mulch. Apply the specified mulch to a depth of 2" evenly spread over the entire area of each soil basin.

3.04 PLANTING GROUND COVER

- A. General. Rake existing soil smooth and free from soil lumps, rocks and other deleterious material. Mix in 1" minimum soil amendment and rake smooth.
- B. Planting. Space the ground cover plants evenly as indicated on the drawings, staggering the spaces around shrubs and trees as well as in open areas. Plant only in soil that is moist but friable, never in wet or soggy soil. When planting in the open on hot days, above 90 degrees F., shorten the time between planting and watering.

3.05 SOWING TURF GRASS

- A. Preparation. Grade seed beds, thoroughly removing ridges and depressions, making areas smooth, continuous, firm planes that ensure proper drainage. Remove soil lumps, rocks, sticks and other deleterious material.

- B. Sowing. Sow with a seeder approved for this purpose only. Sow at a rate of six lbs. per 1,000 square feet. Promptly after seeding, wet the seed bed thoroughly and keep all areas moist until germination is complete.
- C. Fertilizing. Apply the specified fertilizer at the rate of 20 lbs. per 1,000 square feet. Rake lightly into the soil.
- D. Protection. Protect turf areas from all forms of traffic by erecting temporary fences or barriers and signs as necessary to prevent trampling or gouging.

3.06 STAKING

- A. Quantity. Stake trees, using two stakes per tree with two tree ties minimum per stake. Drive stakes into the ground at least two feet.
- B. Type of Ties. Tree ties are to be minimum 8 ga. galvanized wire with rubber tubing around tree trunk.
- C. Placement. Stakes will be placed 90 degrees to prevailing winds.

3.07 INSPECTION

- A. Schedule. In addition to normal progress observations, schedule and conduct the following formal inspections, giving at least 24 hours advance notice to proper representative of Owner.
 - 1. Inspection of plants in containers prior to planting.
 - 2. Inspection of plant locations, to verify compliance with drawings.
 - 3. Final inspection within 24 hours after completion of all plantings.
 - 4. Final inspection at the end of the maintenance period, provided that previous deficiencies have been corrected.

3.08 MAINTENANCE

- A. Time Period. Maintain planting, starting with the first day of planting operations and continuing for 90 calendar days after planting is complete and approved by the Owner.

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- B. Work Included. Watering, weeding, cultivating, spraying, and pruning necessary to keep the plant materials in a healthy growing condition and to keep the planted areas neat and attractive throughout the maintenance period. Provide equipment and means for proper application of water to those planted areas not equipped with an irrigation system. Protect planted areas against damage, including erosion and trespassing, by providing and maintaining proper safeguards.
- C. Replacements. At the end of the maintenance period, all plant materials shall be in a healthy growing condition. During the maintenance period, should the appearance of any plant indicate weakness and probability of dying, immediate replacement of that plant with a new and healthy one of the same type and size without additional cost to Owner.
- D. Extension of Maintenance Period. Continuance of maintenance period at no additional cost to the Owner until previously noted deficiencies have been corrected, at which time the final inspection will be made.

END OF SECTION 02950