

SECTION 02950 – LANDSCAPING

PART 1 – GENERAL

1.1 SUMMARY

- A. Furnish all materials, labor, services, and equipment necessary for the proper planting of all trees and sizes specified, and the prescribed locations, and in accordance with the Drawings and Specifications.

1.2 APPROVALS

- A. The irrigation system shall be installed, adjusted, and approved along with planting as needed for irrigation coverage starting any work of this section.

1.3 SUBSTITUTIONS

- A. Substitutions will not be permitted without written approval by District's representative.
- B. If a specified plant species or variety is not obtainable, Contractor may submit a proposal to provide the nearest equivalent size or variety to the Landscape Architect for consideration. Substitutions are made at no additional cost to the District.

1.4 SUBMITTALS

- A. Submit copies of all invoices for plant material delivered to the site.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Topsoil: Fertile, friable, sand, loam, and have at least 5% organic matter, free from subsoil, clay lumps, stones, or similar objects larger than 1/2" in any dimension; including brush, roots, objectionable vegetation, or material unsuitable or harmful to plant growth.
- B. All soil mixtures for planting shall be prepared and mixed in separate stockpiles. Contractor shall not prepare soil mixtures at the plant pits or use excavated material for the soil mixture. If groundcover is called for in the plan, Contractor may mix the groundcover soil mixture at the planting bed location providing approved topsoil, as specified herein, is used.

- C. Prepared Backfill mix: see drawings for mix.
- D. Fertilizer: Commercially manufactured; furnished in unopened standard containers that are clearly marked with the name, weight, and guaranteed analysis of the contents and to ensure proper protection in transportation and handling; and in compliance with all local, state, and federal fertilizer laws. Packaging should indicate appropriate N-P-K ratios for new plants and/or grass or maintenance of the same. New trees should be planted with Agriform Planting tablets or similar product.
- E. Reinforced Rubber Hose: 2 ply and at least $\frac{3}{4}$ inches in diameter, as shown on the drawings.
- F. Tree staking: Lodgepole pine stakes at least 2" by 2" actual dimension and not less than 10 feet long, of sound, durable lumber of uniform size, pointed at one end.
- G. Water required for work shall be obtained fresh water from sources and free from injurious chemicals and other toxic substances harmful to plant life.
- H. Plant Materials: All plants shall be true to type and nomenclature and typical of their species or variety; have a normal habit of growth with well-developed branch systems and vigorous root systems; sound healthy, vigorous, free from defects, disfiguration, injury, disease of any kind, insect eggs, borers and any infestation; be nursery grown, except approved collected materials; have been growing under similar climatic conditions to those of the locality of this project for at least two years prior to planting.
 - i. All plant materials shall be shipped from nurseries located within a 60 mile radius of the project.
- I. Tree root barriers: Required when tree is installed less than 5 (five) feet from any hardscape. Barriers shall be linear, .08" wall thickness, polypropylene panels with UV inhibitors, with $\frac{1}{2}$ " deep vertical root directing ribs spaced at 6" o.c. Install min 12 inches from hardscape and 12' long centered on tree trunk.

PART 3 – EXECUTION

3.1 Not Used

3.2 FINE FINISH GRADING - SUB GRADE

- A. All flow lines shall be maintained to allow free drainage of surface water. Displaced material, which interferes with drainage, shall be removed and

placed as directed. Low spots shall be graded to drain properly.

- B. All rock, debris, and miscellaneous foreign matter shall be removed.
- C. Finish grade all planting areas to a smooth even condition. Make sure no water pockets or irregularities remain.
- D. Remove all foreign materials; remove clods and rocks larger than 1-1/2" in any dimension from soil within 3" of finish grade.
- E. Bring finish grades to required elevations so that after conditioning and planting grade is 2" below tops of curbs and walks. Slope to drain toward adjacent drainage swales or catch basins.
- F. Contour mounds: Construct with imported topsoil and specified soil amendments. Install and shape mounds to minimize settlement and/or erosion. Referenced dimensions of mound contours refer to height above finish grade.

3.3 INSTALLATION

A. Plants

- 1. Locations as indicated on drawings.
- 2. In all mass planting areas, the plants shall be evenly spaced to give uniform cover in the planting bed area.
- 3. Planted in pits as detailed in the drawings.
- 4. Mulch shall be applied after planting is completed, see plan.

B. All trees

- 1. Plant in pits as detailed in the drawings.
- 2. Excavate pits with vertical sides. Pits shall be large enough to allow a minimum of one foot on the sides of the rootball of the plant, without disturbing soil below the rootball, of such depth that when planted and settled, the crown of the plant will be 1-inch above finish grade.
- 3. Backfill pits with specified soil mix and compact firmly, especially under the rootball to establish plant on firm foundation. The "Soil Mix" shall be carefully and firmly worked and tamped under and around the base of the ball to fill all

voids.

4. When partially backfilled and compacted, the container shall be removed.
 5. All plants shall be thoroughly watered immediately after planting. This means complete saturation of all backfill in the pits and beds during the same day of planting.
 6. Mulch shall be applied after planting is completed, see plan.
- C. Contractor will be responsible for any damage to landscape area caused by the work and shall repair in a satisfactory manner at Contractor's own expense.
- D. All plants shall conform to all sizes and measurements specified in the plant list. Plants meeting requirements specified in the plant list must have a normal balance between height and spread at the District's judgment will reject trees not meeting this criteria.
- E. Contractor shall be responsible for all plant inspection certificates materials which may be required by Federal, State, or other authorities to accompany shipments of plants.
- F. All trees shall be staked and guyed immediately after planting.
- G. All plants shall be neatly pruned after planting in accordance with standard horticultural practice to preserve the natural character of the plant. Deadwood, broken or badly bruised branches shall be removed with a clean, sharp cut.
- H. Fertilizing and Conditioning at any shrub or groundcover planting areas: Provide planting areas to finish grades, including mounds, before installation of specified fertilizer or soil conditioning materials.
1. Mechanically install the following amount of fertilizer or soil conditioning materials at a uniform rate as specified on the plans.
 2. Quantities of required materials for planting areas shall be at Project site. Furnish IOR with delivery tickets before installation to verify source, kind, and quantities delivered.
 3. After installation of fertilizer and soil conditioning materials, uniformly cultivate materials into upper 6 inches of soil with suitable equipment operated in at least two directions at approximate at right angles. Process soil until friable.

- I. After cultivation the whole area shall be raked even and smooth to grade. The planting of shrubs shall commence after preparation in accordance with these specifications.
- J. All trees planted within 5 feet of walls, paved surfaces, curbs, or gutters shall be installed with linear root barriers adjacent to the built surface. Depth shall be 18" adjacent to walls and paved surfaces, and 24" adjacent to curbs and gutters. Place with vertical ribs facing the tree and with the top ½" exposed above grade.

3.4 CLEAN-UP

- A. Keep all areas of work clean, neat and orderly at all times. Throughout the course of planting, excess materials shall immediately be removed from the site, walkways and driveways kept clear, and all precautions taken to avoid damage to existing structures, trees, shrubs, plants, and grass. All ground surfaces shall be raked smooth.

3.5 MAINTENANCE – 90 days from District acceptance of work

- A. Contractor shall maintain all planting areas, plants, and related items for the guarantee period by watering, weeding, fertilizing, pruning, trimming, spraying, and any other standard horticultural maintenance practice required in keeping plants in a vigorous healthy and presentable growing condition.
- B. Watering shall be provided as often as necessary to keep the soil condition of the plant in a moist condition at all times. Plants shall not be allowed to dry out at any time.
- C. All planting beds shall be kept clear of weeds at all times.
- D. Control for rodents such as gophers and ground squirrels as needed.

3.6 PLANTING GUARANTEE

- A. All trees shall be guaranteed for one year, and all plants shall be alive and in satisfactory growing condition at the end of the guarantee period. The beginning of the guarantee period shall be upon acceptance of the completed planting.
- B. Plants which die or become unhealthy or appear to be in a badly impaired condition shall be removed promptly and replaced, and any plants which settled below or rise above the desired finished grades shall be reset at proper grade. All replacements shall be plants of the same size and quality as originally

specified in the "Plant List" and be furnished, planted, guyed, and maintained as specified herein at no additional cost.

- C. At the guarantee period conclusion, a final inspection of all work included in this contract will be made. Any plant found to be not in a healthy growing condition, broken, damaged, or otherwise in such a condition as to impair or destroy the symmetrical or other desired appearance shall be removed immediately from the site and replacement made by the Contractor, as specified under this section, at no additional cost to the District.

END OF SECTION