

PART 1 - GENERAL

DESCRIPTION

Provide trees, plants and ground covers as shown and specified. The work includes:

- 1. Soil preparation. (Topsoil to be provided by GC)
2. Trees, plants and ground covers.
3. Planting mixes.
4. Mulch and planting accessories.
5. Maintenance until final acceptance by RaceTrac Construction Manager

Related Work:

- 1. Irrigation System.

QUALITY ASSURANCE

Plant names indicated, comply with "Standardized Plant Names" as adopted by the latest edition of the American Joint Committee of Horticultural Nomenclature. Names of varieties not listed conform generally with names accepted by the nursery trade. Provide stock true to botanical name and legibly tagged.

Comply with sizing and grading standards of the latest edition of "American Standard for Nursery Stock". A plant shall be dimensioned as it stands in its natural position.

All plants shall be nursery grown under climatic conditions similar to those in the locality of the project for a minimum of 2 years.

Stock finished shall be at least the minimum size indicated. Larger stock is acceptable, at no additional cost, and providing that the larger plants will not be cut back to size indicated. Provide plants indicated by two measurements so that only a maximum of 25% are of the minimum size indicated and 75% are of the maximum size indicated.

Before submitting bid, the Contractor shall have investigated the sources of supply and satisfied himself that he can supply the listed plants in the size, variety and quality listed and specified. Failure to take this precaution will not relieve the Contractor from his responsibility for furnishing and installing all plant materials in strict accordance with the Contract Documents without additional cost to the Owner. Landscape Architect shall approve any substitutes of plant material or changes in plant material size prior to contractor submitting a bid.

SUBMITTALS

The Landscape Contractor shall submit the following materials certification:

- 1. Photographs of landscape material to be used or locations of nurseries for Landscape Architect to tag material.
2. Boulders and rock mulch samples on site and available for approval by Landscape Architect on first site visit during construction. Photographs of boulders and rock mulch may be offered as alternatives to samples on site.
3. Red Oak double shredded hardwood mulch sample on site for approval by Landscape Architect on first site visit during construction.
4. Routine soil test by approved laboratory and or state cooperative. Mix together a minimum of 5 soil cores per site for testing.
5. Upon plant material acceptance, submit written maintenance instructions recommending procedures for maintenance of plant materials.

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DELIVERY, STORAGE AND HANDLING

Deliver fertilizer materials in original, unopened, and undamaged containers showing weight, analysis, and name of manufacturer. Store in manner to prevent wetting and deterioration.

Take all precautions customary in good trade practice in preparing plants for moving. Workmanship that fails to meet the highest standards will be rejected. Spray deciduous plants in foliage with an approved "Anti-Desiccant" immediately after digging to prevent dehydration. Dig, pack, transport, and handle plants with care to ensure protection against injury. Inspection certificates required by law shall accompany each shipment invoice or order to stock. Protect all plants from drying out. If plants cannot be planted immediately upon delivery, properly protect them with soil, wet peat moss, or in a manner acceptable to the Landscape Architect. Water heeled-in plantings daily. No plant shall be bound with rope or wire in a manner that could damage or break the branches or trunk.

Cover plants transported on open vehicles with a protective covering to prevent wind burn.

Provide dry, friable, loose topsoil for planting bed mixes. Amend with 4 parts screened topsoil and 1 part organic material (ie. Nature's Helper, Pro-Mix). Frozen or muddy topsoil is not acceptable.

PROJECT CONDITIONS

Protect existing utilities, paving, and other facilities from damage caused by landscaping operations.

A complete list of plants, including a schedule of sizes, quantities, and other requirements is shown on the drawings. In the event that quantity discrepancies or material omissions occur in the plant materials list, the planting plans shall govern.

The irrigation system will be installed prior to planting. Locate, protect and maintain the irrigation system during planting operations. Repair irrigation system components, damaged during planting operations, at this Contractor's expense. Do not begin landscape accessory work before completion of final grading or surfacing.

WARRANTY

Warrant plant material to remain alive and be in a healthy, vigorous condition for a period of 1 year after completion and final acceptance of entire project.

Replace, in accordance with the drawings and specifications, all plants that are dead or, are in an unhealthy or unsightly condition, and have lost their natural shape due to dead branches, or other causes due to the Contractor's negligence. The cost of such replacement is the Contractor's expense. Warrant all replacement plants for 1 year after installation.

Warranty shall not include damage or loss of trees, plants or ground covers caused by fires, floods, freeze rains, lightning strikes, or winds over 75 miles per hour, winter kill caused by extreme cold and severe winter conditions not typical of planting areas, or acts of vandalism, negligence on the part of the Owner.

Remove and immediately replace all plants, found to be unsatisfactory during the initial planting installation. Maintain plant material and lawns until final acceptance is made.

ACCEPTANCE

Inspection to determine acceptance of planted areas will be made by the Owner's representative or Landscape Architect.

- 1. Planted areas will be accepted provided all requirements, including the drawings, have been complied with and plant materials are alive and in a healthy, vigorous condition.

The Contractor will commence the specified plant maintenance once plants have been planted and until final acceptance.

CODES, PERMITS AND FEES

Obtain any necessary permits for the execution of Work and pay all fees required for permits.

The entire installation shall fully comply with all local and state laws and ordinances, and with all established codes applicable thereto.

PART 2 - PRODUCTS

MATERIALS

Plants: Provide plants typical of their species or variety, with normal, densely-developed branches and vigorous, fibrous root systems. Provide only sound, healthy, vigorous plants free from defects, disfiguring knots, sun scald injuries, frost cracks, abrasions of the bark, plant diseases, insect eggs, borers, and all forms of infestation. All plants shall have a fully developed form without voids and open spaces. Plants held in storage will be rejected if they show signs of growth during storage.

- 1. Dig balled and burlaped plants with firm, natural balls of earth of sufficient diameter and depth to encompass the fibrous and feeding root system necessary for full recovery of the plant. Provide ball sizes complying with the latest edition of the "American Standard for Nursery Stock". Cracked or mushroomed balls are not acceptable.
2. Container-grown stock: Grown in a container for sufficient length of time for the root system to have developed to hold its soil together, firm and whole.
a. No plants shall be loose in the container.
b. Container stock shall not be pot bound or have circling roots. Circling roots will be rejected.
3. Provide trees species that mature at heights over 25 feet with a single main trunk. Trees that have the main trunk forming a "Y" shape are not acceptable.
4. Plants planted in rows shall be matched in form.
5. Plants larger than those specified in the plant list may be used when acceptable to the Landscape Architect.
a. If the use of larger plants is acceptable, increase the spread of roots or root ball in proportion to the size of the plant.
6. The height of the trees, measured from the crown of the roots to the top of the top branch, shall not be less than the minimum size designated in the plant list.
7. No pruning wounds shall be present with a diameter of more than 1" and such wounds must show vigorous bark on all edges.
8. Evergreen trees shall be branched to the ground unless specified otherwise.
9. Shrubs and small plants shall meet the requirements for spread and height indicated in the plant list.
a. The measurements for height shall be taken from the ground level to the height of the top of the plant and not the longest branch.
b. Single stemmed or thin plants will not be accepted.
c. Side branches shall be generous, well-twigged, and the plant as a whole well-bushed to the ground.
d. Plants shall be in a moist, vigorous condition, free from dead wood, bruises, or other root or branch injuries.

ACCESSORIES

Topsoil for Planting Beds: Fertile, friable, natural topsoil of loamy character, without admixture of subsoil material, obtained from a well-drained arable site, reasonably free from clay, lumps, coarse sands, stones, plants, roots, sticks, and other foreign materials, with acidity range of between pH 6.0 and 6.8. Topsoil to be at a minimum depth of 6" in planting beds and 4" depth in sodded areas.

Fertilizer: Similar or equal to Milorgonite (6-3-0).

Anti-Desiccant: Protective film emulsion providing a protective film over plant surfaces; permeable to permit transpiration. Mixed and applied in accordance with manufacturer's instructions.

Mulch: See plans for type of mulch to be used.
A. Hardwood: 6 month old well rotted double shredded native hardwood dark brown mulch not larger than 4" in length and 1/2" in width, free of wood chips and sawdust. Install minimum depth of 4".

Water: Free of substances harmful to plant growth. Hoses or other methods of transportation furnished by Contractor.

Guying/Staking/Wire: No. 10 or 12 gage galvanized wire.
1. Turnbuckles: Galvanized steel of size and gage required to provide tensile strength equal to that of the wire. Turnbuckle openings shall be at least 3".

Staking and Guying Hose: New, Two ply, reinforced garden hose not less than 1/2" inside diameter. Green or black in color, all same color for the project.

Tree Wrap: Standard waterproofed tree wrapping paper, 2-1/2" wide, made of 2 layers of crepe kraft paper weighing not less than 30 lbs. Per ream, cemented together with asphalt.

Twine: Two-ply jute material.

PART 3 - EXECUTION

INSPECTION

Examine proposed planting areas and conditions of installation. Do not start planting work until unsatisfactory conditions are corrected.

PREPARATION

Time of planting:

- 1. Evergreen material: Plant evergreen materials between August 15 and October 15 or in spring before new growth begins. If project requirements require planting at other times, plants shall be sprayed with anti-desiccant prior to planting operations.
2. Deciduous material: Plant deciduous materials April 1 to June 1 and August 15 to November 15. If deciduous trees are planted in-leaf, they shall be sprayed with an anti-desiccant prior to planting operation.
3. Planting times other than those indicated shall be acceptable to the Owner.

Planting shall be performed only by experienced workmen familiar with planting procedures under the supervision of a qualified supervisor.

Locate plants as indicated or as approved in the field after staking by the Contractor. If obstructions are encountered that are not shown on the drawings, do not proceed with planting operations. Contact Landscape Architect to determine new location.

Excavate circular plant pits with vertical sides, except for plants specifically indicated to be planted in beds. Provide shrub and tree pits as shown in tree and shrub planting details. Depth of pit shall accommodate the root system. Provide undisturbed sub grade to hold root ball at nursery grade as shown on the drawings. Root flare must be visible after planting.

Provide pre-mixed planting mixture for use around the balls and root systems of plants consisting of 90% excavated material and 50% topsoil mix. Add plant fertilizer per manufacturer's recommendation for each cu. yd. of mixture.

Provide pre-mixed ground cover bed planting mixture consisting of 4 parts screened topsoil to 1 part peat moss and plant fertilizer per manufacturer's recommendation for each cu. yd. of mixture.

Remove loose material and debris from base surface before placing landscape accessories.

Drainage Test

Randomly select a representative number of shrub plant pits in each shrub planting area and test for drainage prior to planting. Randomly select a representative number of tree plant pits and test for drainage prior to planting. Fill each selected plant pit with water and let stand for twenty-four (24) hours. Do not proceed with planting where drainage problems are apparent. Report to the Owner's Representative areas which do not drain within twenty-four (24) hours.

INSTALLATION

Set plant material in the planting pit to proper grade and alignment. Set plants upright, plumb, and faced to give the best appearance or responsibility of each other or adjacent structure. Set plant material 2"-3" above the finish grade. No filling will be permitted around trunks or stems. Backfill the pit with topsoil mix and excavated material. Do not use frozen or muddy mixtures for backfilling. Form a ring of soil around the edge of each planting pit to retain water as shown in detail.

After balled and burlapped plants are set, muddle planting soil mixture around bases of balls and fill all voids.

- 1. Remove all burlap, ropes, and wires from the top 2/3 of the root ball.

Space ground cover plants in accordance with indicated dimensions. Adjust spacing as necessary to evenly fill planting bed with indicated quantity of plants. Plant to within 24" of the trunks of trees and shrubs within planting bed and to within 12" of edge of bed.

Mulching:

- 1. Mulch tree and shrub planting pits and shrub beds with required (see landscape plan) mulching material 4" deep immediately after planting. Thoroughly water mulched areas. After watering, rake mulch to provide a uniform finished surface.

Wrapping, guying, staking:

- 1. Inspect trees for injury to trunks, evidence of insect infestation, and improper pruning before wrapping.
2. Staking/Guying.
a. Stake/guy all trees immediately after lawn sodding operations and prior to acceptance.
b. Stake deciduous trees 3" caliper and less. Stake evergreen trees under 8'-0" tall.
c. Guy deciduous trees over 3" caliper. Guy evergreen trees 8'-0" tall and over.
3. All work shall be acceptable to the Landscape Architect.

Pruning:

- 1. Prune branches of deciduous stock, after planting, to balance the loss of roots and preserve the natural character appropriate to the particular plant requirements. In general, remove 1/4 to 1/3 of the leaf bearing buds. Remove or cut back broken, damaged, and unsymmetrical growth of new wood.
2. Multiple leader plants: Preserve the leader which will best promote the symmetry of the plant. Cut branches flush with the trunk or main branch, at a point beyond a lateral shoot or bud a distance of not less than 1/2 the diameter of the supporting branch. Make cut on an angle.
3. Prune evergreens only to remove broken or damaged branches.

MAINTENANCE

The Contractor shall provide as a separate bid, maintenance for a period of 1 year after final acceptance of the project landscaping. The Contractor must be able to provide continued maintenance if requested by the Owner or provide the name of a reputable landscape contractor who can provide maintenance.

Maintenance shall include mowing, fertilizing, mulching, pruning, cultivating, weeding, watering, and application of appropriate insecticides and fungicides necessary to maintain plants and lawns free of insects and disease.

- 1. Re-set settled plants to proper grade and position. Restore planting saucer and adjacent material and remove dead material.
2. Tighten and repair guy wires and stakes as required. Remove guy wires after one year. Guy straps are not to be too tight some slack is required.
3. Correct defective work as soon as possible after deficiencies become apparent and weather and season permit.
4. Water trees, plants and ground cover beds within the first 24 hours of initial planting, and not less than twice per week until final acceptance.

CLEANING

Perform cleaning during installation of the work and upon completion of the work. Remove from site all excess materials, soils, debris, and equipment. Repair damage resulting from planting operations.

CONTACT RACETRAC PETROLEUM, INC. PROJECT MANAGER PRIOR TO ANY REVISIONS TO THE PLAN SUPPLIED BY RACETRAC PETROLEUM, INC.



Table with columns for DATE, NO., and LANDSCAPE SPECIFICATIONS. Includes logos for W&A Engineering and RaceTrac, and contact information for Racetrac Petroleum, Inc.