

SECTION 02900
LANDSCAPING, GENERAL

PART 1 - GENERAL

1.1 SUMMARY:

A. Section includes:

1. Landscaping general requirements.
2. Landscaping accessories.

B. Related Sections:

1. **Section 02111 – Tree and Plant Protection**
2. Section 02810 - Irrigation System.
3. Section 02920 - Soil Preparation.
4. Section 02930 - Lawns and Grasses.
5. **Section 02931 – Native Grasses Seeding**
6. Section 02950 - Trees, Plants and Ground Covers.

1.2 REFERENCES:

A. Uniform Federal Accessibility Standards (UFAS).

B. University of Colorado, Colorado Springs Facilities Services Department:

1. Campus Master Plan.
2. Campus Micro Master Plans (**when applicable**).

1.3 DEFINITIONS:

A. The terms listed below have been used in this section and throughout the UCCS Standards. Definitions are provided for each.

1. **Landscape:** Every single item on the campus floor except buildings occupied by people, materials storage, or equipment.
2. **Operations:** The series of actions taken to establish procedures and various controls that keep the campus functioning a high level of efficiency. These Include: Planning, scheduling, budgeting, coordinating, supervising, improving, and maintaining the campus landscape.
3. **Maintenance:** The constant and continuing upkeep of campus facilities and plant material.
4. **Development:** The physical evolvement of the campus landscape through the enhancement of existing facilities and the creation of new facilities where none existed

- before.
5. Facilities: The physical objects that are built, installed, or established that serve a particular purpose in the campus landscape, such as buildings, walks, streets, parking lots, benches, lighting, and all other man-made items in the campus landscape -- but not plant material.
 6. Plant Material: Lawns, trees, shrubs, vines, flowering plants, turf, native grasses and other growing things.

1.4 SUBMITTALS:

A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specification Sections.

B. Materials List:

1. Plant material including source and location.
2. Mulches; organic rocks..
3. Amendments.
4. Accessories including edging, stake-guy system.

C. Plant and Material Certifications:

1. Certificates of inspection as required by government authorities.
2. Manufacturer's or vendor's certified analysis for soil amendments and fertilizer materials.
3. Label data substantiating that plants, trees, shrubs and planting materials comply with specified requirements.
4. Seed vendor's certified statement for each grass seed mixture required. Stating botanical and common name, percentages by weight, and percentages of purity, germination, and weed seed for each grass seed species.

D. Planting Schedule: Proposed planting schedule, indicating dates for each type of landscape work during normal seasons for such work in area of site. Correlate with specified maintenance periods to provide maintenance from date of substantial completion. Once accepted, revise dates only as approved in writing, after documentation of reason for delays.

E. Maintenance Instructions: Typewritten instructions recommending procedures to be established by Owner for maintenance of landscape work for one full year. Submit prior to expiration of required maintenance period(s).

1.5 QUALITY ASSURANCE:

A. Pre-Planting Inspection:

1. The Owner and Landscape Consultant will inspect all trees at the nursery before planting commences.
2. All plant fertilizers, backfill mixes, mulches and soil amendments will be accepted by the Owner prior to planting operations.

B. Planting Inspections:

1. The Owner or Landscape Consultant will inspect the staked location of all trees prior to planting.
2. The Owner or Landscape Consultant will inspect the staked locations of container stock prior to planting. Contractor to report any variance of quantity on unit price contracts.

C. Pre-Maintenance Inspection:

1. The Owner or Landscape Consultant will inspect site at the completion of all planting operations.

D. Final Inspection:

1. Final acceptance of the Owner and Landscape Consultant will not be given until all deficiencies are corrected.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Packaged Material: Deliver packaged materials in containers showing weight, analysis, and name of manufacturer. Protect materials from deterioration during delivery, and while stored at site.

1.7 JOB CONDITIONS

- A. Utilities: Determine location of underground utilities and perform work in a manner which will avoid possible damage. Hand excavate, as required. Maintain grade stakes set by others until removal is mutually agreed upon by parties concerned.
- B. Excavation: When conditions detrimental to plant growth are encountered, such as rubble fill, adverse drainage conditions, or obstructions, notify Architect before planting.

PART 2 - MATERIALS

2.1 TOPSOIL

- A. Topsoil for landscape work may not be available at site and must be furnished and as specified.
- B. Provide new topsoil that is fertile, friable, natural loam, surface soil, reasonably free of subsoil, clay lumps, brush, weeds and other liter, and free of roots, stumps, stones larger than 2 inches in any direction, and other extraneous or toxic matter harmful to plant growth.
1. Obtain topsoil from local sources or from areas havinf similar soil characteristics to that found at project site. Obtain topsoil only from naturally well-drained sites where topsoil occurs in depth of no less than 4 inched. Do not obtain from bogs or marshes.

2.2 SOIL AMENDMENTS AND FERTILIZERS:

- A. Type, analysis and application shall be determined by the Landscape Consultant based upon type of planting and the results of specific project soil analysis.
- B. Submit specific product analysis for approval.
- C. Organic Compost: Composted Cow Manure at 4 cubic yards per 1000 square feet.
- D. Compost: A-1 Premium 3 Organic Compost
- E. Mulch: Organic mulch free from deleterious materials and suitable for top dressing of trees, shrubs, or plants.

2.3 LANDSCAPE MATERIALS:

- A. Bark Mulch:
 - 1. Gorilla Hair Mulch
- B. Gravel Mulch:
 - 1. 3/4" rock, color as selected.
 - 2. Submit sample for acceptance. Depth shall be 3" minimum.
 - 3. Soil separator fabric required.
- C. Soil Separator Fabric:
 - 1. 4 oz. per square yard polypropylene fabric, water permeable, and unaffected by U.V. light, freezing and thawing.
 - 2. Approved substitute fabrics.
 - 3. Provide **at all** gravel beds.
- D. Pre-Emergent Herbicide:
 - 1. Apply beneath all mulch layers and soil separator fabric. Apply at manufacturer's specified rate. Comply with EPA requirements regarding application and use of product.
 - 2. Submit manufacturer's data for approval.
- E. Landscape Edging
 - 1. Install per manufacturer's instructions.

F. Crusher Fines: The following type, size, and color. Allpied over specified filtration fabric.

1. Size ¼” minus
2. Color: as selected
3. Allpied to 3” depth

G. Anti-Desiccant: Emulsion type, film-forming agent designed to permit transpiration, but retard excessive loss of moisture from plants. Deliver in manufacturer’s fully identified containers and mix in accordance with manufacturer’s instructions.

H. Wrapping: tree-wrap tape not less than 4 inches wide, designed to prevent borer damage and winter freezing.

I. Stakes and Guys: Provide standard wood stakes. Provide wire ties and guys of 2-strand, twisted, pliable galvanized iron wire, not lighter than 12 gal. with zinc-coated turnbuckles. Provide manufactured fabric tree strap with grommet to protect tree trunks from damage by wires.

PART 3 - EXECUTION

3.1 PREPARATION:

- A. Lay out individual tree and shrub locations and areas for multiple plantings, Stake locations and outline areas and secure Architect’s acceptance before start work. Make minor adjustments as may be required.
- B. After receiving approval of staked locations, and prior to digging, the Contractor shall request and verify locations of all utilities within the planting area.

END OF SECTION 02900