

**SECTION 15 – CLEARING AND GRUBBING  
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## **SECTION 15 - CLEARING AND GRUBBING**

### **15-1 GENERAL**

Clearing and grubbing consists of removing all objectionable material, and material as designated in these Specifications, from within the work site or other areas as shown on the Plans or specified in the Special Provisions.

The methods of removing existing facilities must conform to Section 13, “Existing Facilities”, of these Specifications.

Attention is directed to Section 10, “Environmental Controls at Work Site”, of these Specifications for additional requirements.

Removal of existing trees includes removal of tree stumps and tree roots 2” or larger in diameter to a minimum depth of twelve inches below the grading plane. Removed trees, stumps and roots are the property of the Contractor and must be removed from the project site. All debris resulting from tree removal work, including broken branches, fallen leaves, wood chips, and sawdust produced from stump and root removal work, must be promptly removed from the work site. If the tree to be removed is within the drip line of another tree that is to remain, the tree removal work must be done under the direction of a Certified Arborist. The holes resulting from tree stump and tree root removal activities must be backfilled as specified in Section 18, “Earthwork”, of these Specifications. If the tree removal work is in a lawn area that is to remain, the area of tree removal must be repaired and replanted with turf sod as specified in Section 20, “Landscaping”, of these Specifications.

Clearing and grubbing operations must not cause more than minimal damage to public and private property and improvements, including existing trees, shrubbery and lawns, outside of the work site, or other areas shown or specified in the Contract.

#### **15-1.01 Vegetation and Debris**

Vegetation designated for removal, such as weeds, grass, shrubbery, roots, and stumps, and debris, such as broken concrete and trash, must be removed from the right-of-way or construction areas and disposed of by the Contractor. Vegetation to remain must be protected in place.

#### **15-1.02 Trees, Shrubs, Ground Cover, and Lawns**

For the purpose of these Specifications, trees are defined as having a trunk diameter at breast height of 3 inches and greater measured at a height of 4-1/2 feet above the ground. Shrubs are defined as single or multi-stem individual plants, not of tree size. Ground cover is defined as multiple spreading and matting plant material of a density to cover bare ground, including turf lawn.

Only plant material shown on the Plans to be removed and disposed of must be removed and disposed of. Prior to the clearing and grubbing operations on a particular property or portion of the work site, the Agency will mark and designate the trees, shrubs, and ground cover areas to be removed and disposed of.

Trees, shrubs and ground cover that are not to be removed must be protected from injury or damage. Attention is directed to Section 10-13, “Protection of Existing Trees”, of these Specifications for protection of certain existing trees within the County of Sacramento.

Trees, shrubs and ground cover designated to be relocated, and not specifically designated for disposal, must be preserved by removing an adequate and substantial root mass of native soil and roots with the rootball wrapped in burlap and kept moist until the Work has progressed to permit the replanting. The removal and replanting must be performed in a careful and professional manner at the direction of an Arborist certified by the International Society of

Arborists, hereinafter designated as a “Certified Arborist”. The tree trimming must be limited to tree limbs required to be removed to allow for minimum required vehicular clearance. Tree root cutting must be limited to only what required for earthwork operations. Roots 1/2 inch or greater in diameter must be cut cleanly and protected from moisture loss as directed by the Certified Arborist or by the Certified Arborist's staff. Root cutting on trees to remain, which in the opinion of the Certified Arborist will jeopardize the health or stability of the tree, must be brought to the attention of the Agency for specific instructions prior to the cutting of the roots.

The Contractor must submit the name of the Certified Arborist to the Agency, in writing, a minimum of 4 Working Days prior to the start of clearing and grubbing operations.

Tree branches or portions of shrubs which extend over a roadway must be trimmed to provide a minimum clearance of 14 feet above the shoulder point of the roadbed, unless specifically permitted otherwise in writing by the Agency. The tree or shrub branches to be removed must be removed by a tree trimmer certified by the International Society of Arborists.

Lawns which are disrupted during the Work must be regraded and replaced or repaired to match the existing lawn. Unless shown or specified otherwise in the Contract or directed otherwise by the Agency, lawns that are damaged must be replanted with new sod. The resulting lawn must be left in a condition equal to or better than the condition of the lawn prior to the start of the work.

### **15-1.03 Disposal and Salvage**

All materials removed become the property of the Contractor and must be disposed of off the rights-of-way or easement, unless otherwise shown or specified in the Contract. Existing public or private improvements that are designated in the Contract to be salvaged must be carefully removed and stockpiled in the right-of-way or easement for later removal by the Agency or the adjacent property owner.

### **15-1.04 Abandonment of Pipes, Conduits, and Structures**

When a pipe, conduit, structure, or other facility is to be abandoned within specified limits, all structures and appurtenances within the limits must also be abandoned. All abandoned pipes, conduits, structures, and other abandoned facilities within 2 feet below the roadway subgrade must be removed and disposed of. Pipes that are lower than 2 feet below the roadway subgrade must either be removed or the ends plugged with concrete, at the option of the Contractor, unless specified otherwise in the Contract.

When pipes, conduits, structures, or other facility have been or are to be abandoned and are not otherwise specified to be removed, if, in the opinion of the Agency, the items are found to interfere with construction, the interfering portion must be removed and the remaining open portion securely sealed. Where the greatest internal dimension of the pipe or conduit is 3 feet or less, the seal must consist of a wall of concrete not less than 6” thick or an 8” thick wall of brick and mortar. For larger openings, details of the seal will be shown on the Plans or directed by the Agency.

When catch basins, drain inlets, or manholes are to be abandoned, the upper portion must be removed to a depth of at least 1 foot below street subgrade and the conduits connected to the structure must be sealed as specified in this Specification. The bottom of the structures must be perforated or broken to prevent the entrapment of water.

Structures designated on the Plans to be removed must be removed to the full depth of the structure, including its foundation. Voids resulting from abandoned or removed structures must be filled with suitable material, in accordance with Section 18-5.02, “Backfill”, of these Specifications, and compacted to a relative compaction (refer to Section 5) of 90 percent. If the voids are in surfaced areas otherwise to remain undisturbed, they must be backfilled with materials equal to or better in quality and to the same thicknesses as the surrounding materials, as directed by the Agency.

All costs for this work are included in the prices bid for the items involved.

**15-1.05 Silt Control**

The Contractor must comply with Section 10-4, “Erosion, Sediment, and Water Pollution Control”, of these Specifications during clearing and grubbing operations.

**15-1.06 Miscellaneous**

Clearing and grubbing includes the removal and proper disposal of existing barricades as shown on the Plans for removal, and removal of pavement markers prior to asphalt overlays and application of slurry seal as directed by the Agency. Unless otherwise provided for in the Special Provisions, all concrete removal shown on the Plans, or otherwise directed by the Agency, must be in accordance with Section 13, “Existing Facilities”, of these Specifications and included in the price paid for clearing and grubbing with no additional payment allowed. Actual limit of concrete removal must extend to nearest score mark or joint, if nearest score mark or joint is within 3 feet of limit of removal as indicated on the Plans. Along the entire length of curb and gutter removal, saw cut and remove the existing roadway pavement a minimum of 2 feet wide by 6 inches deep. Unless otherwise provided for in the Special Provisions, clearing and grubbing includes removal of existing storm drainage facilities as shown on the Plans. Removal must be in accordance with Section 13, “Existing Facilities”, of these Specifications and included in the price paid for clearing and grubbing and no additional payment will be made.

**15-2 PAYMENT**

All work associated with the removal of trees will be paid for per each of the categories of tree trunk diameters listed in the Proposal. The tree trunk diameters are measured at a height of 4-1/2 feet above ground. Payment for tree removal includes all labor, tools and equipment required for the removal and disposal of the tree, stump, roots and all debris, all required services of a Certified Arborist, backfilling of all resulting removals and the repair and replanting of all disturbed landscaping, and all incidentals.

If there are no bid items for tree removals, all tree removal work including removals, disposals, required services of a Certified Arborist, earthwork and landscaping is included in the lump sum price paid for Clearing and Grubbing and no additional compensation will be paid.

The lump sum price paid for clearing and grubbing includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals necessary to perform the work, and for doing all the work involved in clearing and grubbing, including protection of existing trees, as shown or specified in the Contract, specified in these Specifications, and directed by the Agency, including the removal and disposal of all the resulting material.

When the Contract does not include an item for clearing and grubbing, full compensation for clearing and grubbing required to perform the Work is included in the prices paid for the items of work requiring clearing and grubbing and no additional compensation will be paid.