

Bracketed section numbers refer to the 2006 *Standard Specifications*.

## Section 16 Clearing and Grubbing

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### 4-1601 General

This section covers clearing and grubbing. Clearing and grubbing is usually one of the first work items and is generally paid as a lump sum item or by the acre. During clearing and grubbing, pay special attention to the preservation of property and environmentally sensitive areas.

### 4-1601 General

### 4-1602 Before Work Begins

During this preliminary inspection, take the following steps:

### 4-1602 Before Work Begins

- Review the plans, special provisions, and right-of-way agreements for details that may require special staking or issuing change orders.
- Ensure the approval of the water pollution control plan. Review the plan to ensure clearing and grubbing conforms to the plan.
- Ensure the clear marking of features and facilities that are to be preserved. Review and verify the contractor's submitted list of existing irrigation system deficiencies.
- Discuss with the contractor such items as the marking of any special locations, including environmentally sensitive areas and any additional areas to be cleared. Call the contractor's attention to any environmental commitments Caltrans made or any regulations or permits other agencies require, or both.
- Before disposing of material outside of the highway right-of-way, review any planned disposal sites. Refer to Section 5-1.20B(4) [7-1.13], "Contractor-Property Owner Agreement," of the *Standard Specifications* to determine the contractor's necessary actions.
- If a planned disposal site is not available for state use, discuss the Caltrans policy in Section 7-103L, "Disposal, Staging, and Borrow Sites," of this manual with the contractor. To ensure mutual understanding and agreement, hold a joint meeting including the contractor, environmental-construction liaison, and appropriate regulatory agencies. The contractor must obtain and submit permits, environmental studies, and documentation, among other items required by agencies having jurisdiction over the site. If the contractor satisfies all submittal requirements for the disposal site, provide written authorization for disposal outside the highway right-of-way.
- Before permitting the contractor to chip plant materials for disposal on the job site, investigate to determine if plant disease or insect pests will be spread to disease-free or insect-free areas. You can obtain technical advice on diseases and insects in cultivated trees from the county agricultural extension offices. For advice about natural forest trees, contact the California Department of Forestry or the U.S. Forest Service. If the decontamination of chips is advisable and the contract does not provide for pest control, ensure this work is done as an ordered change.

**4-1603**  
**During the**  
**Course of Work**

**4-1603 During the Course of Work**

During the work, take the following steps:

- Ensure the contractor's equipment has the required safety devices to protect personnel. In forest areas, ensure the use of the required spark arresters on equipment.
- Ensure the contractor's operation does not create a public hazard. If necessary, require traffic control during timber falling.
- Periodically observe the operation to ensure the prevention of damage to adjacent property and environmentally sensitive areas and to ensure the preservation of trees and facilities that are to remain. As set forth in permits and agreements, verify the contractor's adherence to environmental commitments and permits. For any deviations and violations, document and require corrective action by the contractor, and consult with the district environmental-construction liaison for review and comment.
- Determine the limits of clearing areas that do not require stump removal and check the height of stumps above natural ground.
- Determine if dead, dying, or otherwise unstable trees located in the right-of-way (but outside the clearing limits) constitute a hazard. Any such trees should be removed.
- The contract may state that merchantable timber is the property of other agencies. Check that any timber handling adheres to the agreement with these agencies.
- When burial of debris within the right-of-way is permitted, ensure the debris will not act as a permeable layer, does not block drainage, and will not interfere with maintenance. Also, ensure no material is buried within the roadway prism unless otherwise allowed in the special provisions.
- Ensure that the burial of debris, both on and off the right-of-way, is not aesthetically detrimental and does not create contamination problems. Keep accurate records whenever any solid waste that might interfere with future work is disposed of by burying it adjacent to the roadway. Show this information on the as-built plans.
- When burning is permitted, ensure the contractor has obtained a permit from the air pollution control officer of the local or regional authority. Prohibit burning at locations where the smoke will impede visibility for public traffic. Ensure the contractor takes adequate precautions, such as constructing fire trails and posting guards, to prevent the uncontrolled spreading of fires. When poison ivy, oak, or sumac is present in areas where burning is otherwise permitted, ensure the burning of such material complies with any local ordinances or safety regulations.
- Ensure that tree branches extending over the roadway are cut off as required by Section 16-1.03B, "Clearing," of the *Standard Specifications*. During the removal of additional branches, direct the contractor to give the trees a balanced appearance.
- A checklist showing locations where clearing is incomplete may be necessary in the final stages of the operation. Complete payment should not be made until all areas have a neat and finished appearance.

#### **4-1604 Measurement and Payment**

If the work is not to be completed within one pay period, determine a pay system that provides for periodic payments that represent the true percentage of the work completed.

#### **4-1604 Measurement and Payment**