

**Section 16 Clearing and Grubbing****Section 16  
Clearing  
and Grubbing****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 hectare. 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 contract 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.
- Discuss with the contractor such items as the marking of any special locations, such as 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 and refer to Section 7-1.13, "Disposal of Material Outside of Highway Right of Way," of the *Standard Specifications* and Section 3-708 of the *Construction Manual*, to determine the contractor's necessary actions. Unless the disposal site is already available for state use, as per the Caltrans policy regarding "Disposal, Staging and Borrow," (DSB) as discussed in Section 7-103D of the *Construction Manual*, the contractor must obtain and present to the resident engineer any permits, environmental studies, and documentation, among other items, required by agencies having jurisdiction over the site. To ensure mutual understanding and agreement, hold a joint meeting between the resident engineer, contractor, environmental/construction liaison, and these regulatory agencies. If the contractor meets these requirements he should be provided with the required written permission 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. The resident engineer should consult with the district environmental unit 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 wastes that might interfere with future work are disposed of by burying the solid wastes adjacent to the roadway. Also, 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 specified. During the removal of additional branches, direct the contractor to present a balanced appearance of the trees. Check that the contractor treats as specified any scars resulting from removal.
- 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.

Some contracts may have a limitation on payment for clearing and grubbing. Refer to section 5 of the special provisions.

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