

SECTION 02231

SITE CLEARING AND GRUBBING

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Clear, grub, remove and dispose of trees, stumps, and debris within the designated limits of the roadways, channels, easements, and other designated areas.

1.2 RELATED SECTIONS

- A. Section 01355: Environmental Protection
- B. Section 01571: Temporary Environmental Controls
- C. Section 02221: Remove Structure and Obstruction

1.3 DEFINITIONS

- A. Clear: remove and dispose of trees, stumps, logs, limbs, sticks, vegetation, debris, and other material on the natural ground surface.
- B. Grub: remove and dispose of roots, buried logs, debris, and other material under the ground surface.

1.4 PAYMENT PROCEDURES

- A. When there is no bid item included in the proposal for "Site Clearing and Grubbing:"
 - 1. This work is considered incidental to other items of work and no separate measurement or payment will be made.
 - 2. Include all costs in other items of work.

PART 2 PRODUCTS **Not used**

PART 3 EXECUTION

3.1 PREPARATION

- A. Verify with Engineer the vegetation or objects to be removed.
- B. Review work procedures with Engineer.
- C. Schedule work carefully with consideration for property owners and general public.
- D. Refer to Section 01571 for temporary environmental measures.

3.2 VEGETATION REMOVAL

- A. Grub the areas 2 feet below natural ground within the limits of clearing of all stumps, roots, buried logs, and all other underground obstructions.
- B. Stumps, roots, and non-perishable solid objects may remain in cleared areas where the embankment is:
 - 1. 2.0 feet or more above the natural ground.
 - 2. At least 2.0 feet away outside the slope stake lines.
- C. Completely grub stumps and roots where a structure is to be constructed, piles are to be driven, or unsuitable material is to be removed.

3.3 BACKFILLING

- A. Backfill all stump holes, cuts, depressions, and other holes resulting from clearing and grubbing within areas to receive embankment. Compact backfilled areas to the density of the surrounding ground.
- B. Measure and pay separately for materials used for backfilling under “Roadway Excavation” or “Borrow.”
- C. Consider “Roadway Excavation” and “Borrow” as incidental to the work when these items are not included in the bid proposal. No separate measurement or payment made in this case.

3.4 DISPOSAL

- A. Dispose of material in accordance with Section 01355.
- B. Do not dispose of material within the designated roadbed.
- C. Outside of the right-of-way:
 - 1. Acceptable when done according to prevailing laws (including environmental laws), ordinances, regulations, and rules, and at no additional cost to the Department.
 - 2. Furnish the Engineer with copies of the disposal permits or agreements.
- D. Inside the right-of-way:
 - 1. Bury material at locations specified by or acceptable to the Engineer.
 - 2. Use material to widen embankments and flatten embankment side slopes as approved by the Engineer.
 - 3. Cover disposed material with a minimum of 2.0 ft of earth and grade to drain properly at no additional cost to the Department.
 - 4. Reduce wood to chips a maximum of ½ inch thick for mulching cut and fill slopes. Chips may be buried or distributed uniformly on the ground surface and mixed with the underlying earth so the mixtures will not sustain burning.

3.5 TREE REMOVAL

- A. Refer to Section 02221.

3.6 PROTECTION

- A. Land monuments, property markers, or official datum points:
 - 1. Protect until their removal is approved.
 - 2. Reference for re-establishment before removing.
- B. Protect trees from damage to roots and branches if they are designated to remain.
- C. Protect other vegetation and/or objects designated to remain.

END OF SECTION