

## SECTION 02817

### CLEARING AND GRUBBING

#### PART 1 - GENERAL

##### 1.01 SCOPE OF WORK

- A. Work specified in this Section consists of Clearing and Grubbing within areas specified in the Contract Documents or as directed by the Owner's representative. Work under this Section includes removal and disposal of all designated trees, palms, brush, stumps, grass, roots, and other such protruding objects. Also included is the removal and disposal of fencing, concrete curb, sidewalks, existing pavement, and debris not required to remain or to be salvaged that is necessary to prepare the area for the proposed improvements. Contractor shall notify all utility companies or utility owners (both public or private) of their intent to perform such work and shall coordinate field location of utility lines prior to commencement of construction.
- B. Other miscellaneous work considered necessary for the complete preparation of the overall project site is also included under this Section. Work includes, but is not limited to, the following:
  - 1. Leveling and restoration of terrain outside the limits of construction for purposes of facilitating maintenance and other post- construction operations.
  - 2. Trimming of certain trees and shrubs within project limits for utilization in subsequent landscaping of the project.
  - 3. Plugging or sealing of culvert pipes or other structures to prevent erosion or collapse of adjacent soils.

##### 1.02 SPECIFICATIONS AND STANDARDS REFERENCE

- A. Where supplementary specifications or standards such as ASTM, AWWA, AASHTO, etc. are referenced, such references shall be latest edition.

#### PART 2 - PRODUCTS - Not Used.

#### PART 3 EXECUTION

##### 3.01 CLEARING AND GRUBBING

- A. Clearing and Grubbing shall consist of complete removal and disposal of all items stated in Article 1.01 which are not specified for removal under other items of the contract.
- B. Unless otherwise shown in the Plans or Contract Documents, Standard Clearing and Grubbing shall be done within the following areas:
  - 1. All areas where any type of excavation is to be done.
  - 2. All areas where any type of embankment will be constructed.
  - 3. All areas where any type of pavement will be constructed.
  - 4. Other areas designated in the Plans or by the Specifications.

C. Depths of Removal

1. In the areas listed below all roots and other debris shall be removed to a depth of at least one foot below ground surface. The surface shall then be plowed to a depth of at least six inches and all roots exposed shall be removed to a depth of at least one foot. All stumps including subsurface roots shall be completely removed to the satisfaction of the Landscape Architect.

Trees shall be removed so roots are pulled out rather than broken or sawed off. Areas requiring the removal methods stated in this paragraph are as follows:

- a) Excavation areas where roots or similar vegetation in the top one foot would interfere with disking, harrowing, or finish grading operations prior to landscaping.

2. In all other embankment areas not listed above where Clearing and Grubbing is to be done, all roots, stumps, and debris protruding through or appearing on the surface shall be removed to a depth of at least one foot below the surface but no plowing or harrowing will be required in these areas.

- D. Trees to Remain: As an exception to the above provisions, where so directed by the Existing Conditions Plan, desirable trees within the clearing limits shall be protected and left standing. No equipment shall stand, stop, or travel across or inside the drip line of any trees or vegetation designated to be saved or protected.

- E. Boulders: Any boulders laying on the top of the existing surface or otherwise encountered during the Clearing and Grubbing shall be removed and disposed of by the Contractor in areas provided by the Contractor. As an alternate to off-site disposal and at the Contractor's expense, he may elect to utilize these boulders in embankments provided the conditions of Article 3.04 in Section 02820 are satisfied. Any breaking or splitting of boulders that may be necessary to comply with size requirements for embankment shall be incidental to the cost of Clearing and Grubbing. No boulders or rock shall be left or placed on-site.

### 3.02 SELECTIVE CLEARING AND GRUBBING

- A. Selective Clearing and Grubbing shall consist of removing and disposing of all vegetation, obstructions, etc. as provided above except that in non-structural areas where the Contractor so elects, roots may be cut off flush with the ground surface. Stumps shall be completely removed. Undergrowth shall be completely removed except in areas designated by the Landscape Architect for aesthetic purposes.
- B. Desirable trees, that are designated by the Landscape Architect to remain, shall be protected and trimmed in such a way to avoid damage to limbs during construction.

### 3.04 ERADICATION OF EXOTIC VEGETATION

- A. Where listed as a separate pay item, Eradication of Exotic Vegetation shall consist of removal and disposal of Australian Pine, Melaleuca, Brazilian Pepper, Florida Holly and other species specifically stated on the Plans or specified herein. Also included shall be the removal of the subsurface root system for each exotics.
- B. In areas where removal is modified to permit cutting off flush with in the ground surface, stump and root system shall be treated with an agency approved chemical herbicide that will ensure the eradication of the root system.
- C. Within the limits established for the Eradication of Exotic Vegetation, all other trees, brush, etc. not classified as exotic shall be removed, unless designated in the field by the Owner's representative to remain. The removal and disposal of non-exotic vegetation shall conform to the provisions of Article 3.01.

### 3.06 REMOVAL OF EXISTING STRUCTURES

- A. Work specified in this Article shall include removal and disposal of existing fencing, footers, pipes, and structures of whatever type as specifically shown in the plans to be removed or as otherwise specified for removal in the Contract Documents. Also included are structures of whatever type or portions thereof which are encountered during construction operations. Where partial removal of a structure is approved by the Engineer, or Landscape Architect. The portion of the existing structure shall be backfilled, plugged, or filled in such a way that will prevent the settlement, movement, erosion or collapse of the adjacent soils.

### 3.07 DISPOSAL OF MATERIALS

- A. Timber, stump, roots, brush, boulders, rubbish, and other objectionable material resulting from work specified in this Section shall be disposed of off-site in locations provided by the Contractor.

### 3.08 OWNERSHIP OF MATERIALS

- A. Except as may be otherwise stated in the Contract Documents, all buildings, structures, appurtenances and other materials removed by the Contractor shall become the property of the Contractor, to be disposed of in areas provided by him.

### 3.09 METHOD OF MEASUREMENT

- A. General: For the various items of work specified in this Section when listed as a separate pay item, payment shall be made by the unit price or the lump sum amount as established in the Contract Documents. Where no separate pay item is established, the cost of all such work shall be included in the various scheduled items of work specified in the Contract Documents, except as provided below.
- B. Clearing and Grubbing: Measurement of Clearing and Grubbing shall include only the areas specified in the Contract Documents that are required to be cleared to permit the construction of the various items or work. Areas that area cleared for convenience, access, or other purposes that are not a requirement of construction will not be measured for payment.

- C. Selective Clearing and Grubbing: Measurement of Selective Clearing and Grubbing shall include all areas shown in the plans or designated in the field by the Owner's representative. This measurement shall include the total area within the limits of Selective Clearing and Grubbing and no deduction shall be made for areas in which desirable trees and brush are designated to remain. Where the limits of Selective Clearing and Grubbing are shown on the Plans or otherwise established in the Contract Documents but no separate pay item established, the measurement of such work shall be included in the quantity or lump sum amount of "Clearing and Grubbing".
- D. Special Clearing and Grubbing: Measurement of Special Clearing and Grubbing shall include all areas shown in the plans or designated in the field by the Owner's representative. This measurement shall include only actual areas cleared by the hand method and shall not include areas cleared by other methods or areas that remain in their original condition.

Where the limits of Special Clearing and Grubbing are shown on the Plans or otherwise established in the Contract Documents but no separate pay item established, the measurement of such work shall be included in the quantity or lump sum amount of "Clearing and Grubbing".

- E. Eradication of Exotic Vegetation: Measurement of Eradication of Exotic Vegetation shall include areas shown on the Plans or designated in the field by the Owner's representative.

This measurement shall include the total area within the limits established for Eradication of Exotic Vegetation and include the areas within these limits where non-exotic vegetation is removed. Where the Owner's representative has designated desirable vegetation to remain within these limits, no deduction of area shall be made for the "saved" areas.

Where limits of Eradication of Exotic Vegetation area shown on the Plans or otherwise established in the Contract Documents but no separate pay item established, the measurement of such work shall be included in the quantity or lump sum amount of "Clearing and Grubbing".

- F. Removal of Existing Pavement: When a separate pay item is established for the Removal of Existing Pavement, the quantity to be paid shall be by the square yard for the actual quantity removed and disposed of off-site.

### 3.10 BASIS FOR PAYMENT

- A. General: Prices and payments for the various work items included in this Section shall constitute full compensation for all work described herein and shall include all removal, disposal, protecting, trimming, breaking, plugging, eradication, or any other items specified in this Section.
- B. Pay Items: For all work specified in this Section, payment shall be made in accordance with the list of pay items established or as otherwise defined in the

Contract Documents. The description of a pay item in the proposal section may vary from the descriptions stated in this Section.

END OF SECTION