

SECTION 02231

CLEARING, GRUBBING AND STRIPPING FOR LEVEE CONSTRUCTION
mm/yy

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

1.2 MEASUREMENT AND PAYMENT

1.2.1 Clearing, Grubbing, and Stripping

1.2.1.1 Payment

Payment will be made for clearing, grubbing and stripping at the contract [lump sum price] [unit price] for clearing, grubbing and stripping. This price shall constitute full compensation for all equipment, labor, materials and incidentals necessary to complete the work specified herein. Payment for refilling of holes resulting from grubbing [and removal or plugging of abandoned pipe and conduits] will be included in the [contract lump sum price] [unit price] for clearing, grubbing and stripping. No separate or direct payment will be made for stockpiling and disposition of stripped materials. All costs in connection therewith will be considered as a subsidiary obligation of the Contractor. If regrowth of vegetation or trees occurs after clearing and grubbing and before placement of embankment, and the Contractor is required to clear and grub again prior to embankment construction, no payment will be made for this additional clearing and grubbing.

1.2.1.2 Measurement

[Clearing, grubbing, stripping, stockpiling and the disposition of the materials from these operations [and plugging or removal of abandoned pipe and conduits] will not be measured for payment.] Refilling of grubbing holes will not be measured for payment.

1.2.1.3 Unit of Measure

Unit of measure: [lump sum.] [unit price].

1.3 SYSTEM DESCRIPTION

The work covered by this section consists of furnishing all equipment, labor, materials, and incidentals, and performing all operations necessary for the clearing, grubbing, and stripping of the areas specified herein or indicated on the drawings, and for the removal and disposal of cleared, grubbed, and stripped materials, [removal or plugging of abandoned pipe and conduits] and refilling of holes resulting from grubbing.

1.4 DEFINITIONS

1.4.1 Clearing

Clearing shall consist of the removal and satisfactory disposal of all [above ground and below ground] trees, downed timber, snags, slash, brush, garbage, trash, debris, fencing, and other items occurring in the designated areas to be cleared.

1.4.2 Grubbing

Grubbing shall consist of the removal and satisfactory disposal of stumps, roots larger than [_____] millimeters [_____] inches in diameter, and matted roots from the designated grubbing areas. Grubbing also includes filling of holes from the grubbing operation.

1.4.3 Stripping

Stripping shall consist of the removal and satisfactory disposal of crops, weeds, grass, and other vegetative materials to the ground surface [and topsoil to a depth of [_____] millimeters [_____] inches.]

1.5 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Data [_____] ;

Submit [_____] FIO

SD-08 Statements

Submit [_____] GA

1.6 PERMITS

In accordance with Contract Clause PERMITS AND RESPONSIBILITIES, the Contractor shall obtain all necessary permits required for disposal, hauling, erosion control, burning, [_____] , and pay all fees associated with permitting and compliance. [In addition, the Government has obtained permits for storm water discharge [and [_____]], as specified in Section [_____] ENVIRONMENTAL PROTECTION.] The Contractor shall comply with the terms of these permits and with the requirements of Section [_____] ENVIRONMENTAL PROTECTION and this section.

1.7 PROJECT SITE CONDITIONS

1.7.1 Protection of Cultural and Natural Resources

All work and Contractor operations shall comply with the requirements of Section [_____] ENVIRONMENTAL PROTECTION and with the requirements of this section.

1.7.2 Protection of Existing Man-Made Facilities and Natural Features

Trees within the clearing area shall be felled in such a manner as to avoid damage to trees left standing and trees outside the clearing area, existing buildings, man-made facilities and natural features, and with due regard to the safety of employees and others.

1.7.3 Historical, Archeological, and Cultural Resources

Historical, archeological, and cultural resources within the Contractor's work limits [are known to exist][may exist]. If, during construction activities, the Contractor observes items that may have historical or archeological value, such observations shall be reported immediately to the Contracting Officer so that appropriate authorities may be notified and a determination made as to their significance and what, if any, special disposition of the finds should be made. The Contractor shall cease all activities that may result in the destruction of these resources and shall prevent his employees from trespassing on or otherwise damaging such resources.

1.8 MERCHANTABLE TIMBER

Merchantable timber remaining within the areas to be cleared on or after the date of award of this contract may be disposed of as the Contractor sees fit, as long as such merchantable timber is either removed from the rights-of-way or is satisfactorily disposed of in accordance with the paragraph DISPOSITION OF MATERIAL and the Contractor complies with all applicable State and local regulations and laws.

1.9 SEQUENCE OF WORK

1.9.1 Clearing and Grubbing

All clearing and grubbing work shall be completed at least [100] [_____] meters [300] [_____] feet in advance of embankment construction. [In locations where work on drainage structures is performed prior to embankment construction, all clearing and grubbing shall be completed for the structure at least [_____] meters [_____] feet on each side of the structure, measured along the levee centerline and [_____] meters [_____] feet perpendicular to the structure.] If regrowth of vegetation or trees occurs after clearing and grubbing and before placement of embankment, the Contractor will be required to clear and grub again prior to embankment construction.

1.9.2 Stripping

After inspection and acceptance of cleared and grubbed areas, stripping may proceed. All stripping work shall be completed not more than [_____] meters [_____] feet in advance of embankment construction.

PART 2 PRODUCTS

PART 3 EXECUTION

3.1 CLEARING

Clearing shall be accomplished within the limits of existing ground to receive embankment [and structures], together with strips [1.5] [_____] meters [5] [_____] feet wide, beyond and contiguous thereto, existing levees

to be degraded, ponding areas, ditches, structures, traverses, channels, riprap, revetment, borrow areas and ramps. Trees, downed timber, snags, slash, brush, garbage, trash, debris, fencing and other items shall be cleared [[_____] mm [_____] inches above] [flush with] the existing ground surface. Trees and vegetation designated to be left standing or to remain shall be protected from damage from construction operations. Clearing of borrow areas shall be limited to the minimum area required for construction operations.

3.2 GRUBBING

Grubbing shall be accomplished within the limits of existing ground to receive embankment [and structures], together with strips [1.5][_____] meters [5][_____] feet wide, beyond and contiguous thereto, existing levees to be degraded, ponding areas, ditches, structures, traverses, channels, riprap, revetment, borrow areas and ramps. Grubbing shall be accomplished to a depth of at least [1][_____] meter(s) [3][_____] feet below the existing ground surface.

3.2.1 Filling of Holes

All holes caused by grubbing operations and removal of pipes and drains, excluding holes in borrow areas, channels and ditches [above required grade], shall be filled with satisfactory material as specified in Section 02331 EMBANKMENT FOR LEVEE CONSTRUCTION. This material shall be placed in [_____] mm [_____] inch layers to the elevation of the adjacent ground surface and each layer compacted to a density at least equal to that of the adjoining undisturbed material.

3.3 STRIPPING

The entire area within the limits of existing ground to receive embankment and structures, together with strips [1.5][_____] meters [5][_____] feet wide, beyond and contiguous thereto, existing levees to be degraded, ponding areas, and ditches [shown on the drawing shall be stripped to remove crops, weeds, grass, and other vegetative materials to the ground surface [and topsoil to a depth of [_____] mm [_____] inches]].

3.4 FIELD QUALITY CONTROL

The Contractor shall establish and maintain quality control for clearing, grubbing, and stripping operations to assure compliance with contract requirements, and maintain records of the quality control for all construction operations including but not limited to the items indicated below. These records, as well as the records of corrective actions taken, shall be furnished to the Government in accordance with Section 01451 CONTRACTOR QUALITY CONTROL.

3.4.1 Clearing

Station to station limits, transverse clearing limits from applicable centerline; percentage of area complete; types of materials cleared.

3.4.2 Grubbing

Station to station limits, transverse grubbing limits from applicable centerline; percentage of area complete; type of material; filling of grubbed holes.

3.4.3 Stripping

Station to station limits, transverse stripping limits from applicable centerline; percentage of area complete; type of material; depth of stripping

3.4.4 Disposition of Cleared, Grubbed and Stripped Materials

Method and location of disposition; damage to timber or improvements which are not cleared.

3.4.5 Damage and Disturbance to Manmade Facilities/Natural Features

3.5 DISPOSITION OF MATERIAL

Except as otherwise specified or indicated on the drawings, all materials resulting from clearing and grubbing operations shall, at the Contractor's option, be disposed of either by windrowing or stockpiling within construction limits, burying within construction limits, burning, chipping, removal from the site, or a combination thereof. In no case shall any material resulting from clearing and grubbing operations be buried or permanently placed within the levee foundation or any structural foundation. The Contractor shall make a reasonable effort to channel merchantable material into the commercial market and to make beneficial use of the materials resulting from clearing and grubbing. [The topsoil material resulting from the stripping operations shall be temporarily stockpiled within the rights-of-way.]

3.5.1 Windrows

Cleared, grubbed and stripped material shall be placed [as shown on the drawings] in a neat windrow or in piles with tree limbs trimmed sufficiently to make the windrow as small as practicable. No cleared, grubbed or stripped material shall extend beyond the construction limits.

3.5.2 Burning

Subject to applicable Federal, State and local burning restrictions, the Contractor may burn material within the contract rights-of-way. Burning operations shall be conducted so as to prevent damage to adjacent man-made facilities and natural features including standing timber to be left inside or outside the right-of-way. The Contractor shall be responsible for any damage to life and property resulting from fires that are started by the Contractor's employees or as a result of the Contractor's operations. The Contractor shall furnish, at the site of burning operations, adequate fire fighting equipment to properly equip personnel for fighting fires. Fires shall be guarded at all times and shall be under constant surveillance until they have been extinguished. All unburned material (material not reduced to ash) shall be removed from the site or disposed of by [_____].

3.5.3 Burying

Subject to applicable Federal, State and local burying restrictions, the Contractor may bury the cleared and grubbed material in the area(s) as shown on the drawings or in [_____]. No material shall be buried within the embankment section [within [_____]meters[_____] feet of embankment], and within [_____] meters [_____] feet of any standing timber. All material disposed of by burying shall be covered with a minimum of [_____] mm [_____] inches of earth.

3.5.4 Chipping

All cut timber, down timber, dead timber, branches, and brush may be chipped. The chips shall be hauled either to stockpiles indicated on the drawings or to other locations approved by the Contracting Officer or removed from site of work. The chips shall be deposited in these areas in either piles or windrows [above] [below] elevation [_____] NGVD.

3.5.5 Removal from Site of Work

The Contractor may elect to remove all or part of the cleared and grubbed materials from the site of the work in accordance with Section [_____] ENVIRONMENTAL PROTECTION. The Contractor shall, at his option, either retain any such materials of value for his own use or dispose of them by sale or otherwise. The Government is not responsible for the protection and safekeeping of any materials retained by the Contractor. Such materials shall be removed from the site of the work before the date of completion of the work.

3.6 REMOVAL OR PLUGGING OF ABANDONED PIPE AND CONDUITS

Abandoned pipes and conduits shall be removed to the limits shown on the drawings or plugged with concrete a minimum distance of [_____] meters [_____] feet from [_____]. Prior to plugging, the Contractor shall clean the interior of the pipe to be plugged and place the concrete in such a manner as to insure a dense, well bonded plug.

-- End of Section --