

\*\*\*\*\*  
USACE / NAVFAC / AFCEA UFGS-02231 (September 2003)  
-----  
Preparing Activity: USACE Superseding  
UFGS-02231 (July 2002)

UNIFIED FACILITIES GUIDE SPECIFICATIONS

References are in agreement with UMR L dated 25 June 2004

\*\*\*\*\*

SECTION TABLE OF CONTENTS

DIVISION 02 - SITE CONSTRUCTION

SECTION 02231

CLEARING AND GRUBBING

09/03

PART 1 GENERAL

- 1.1 SUBMITTALS
- 1.2 DELIVERY, STORAGE, AND HANDLING

PART 2 PRODUCTS

- 2.1 TREE WOUND PAINT
- 2.2 HERBICIDE

PART 3 EXECUTION

- 3.1 PROTECTION
  - 3.1.1 Roads and Walks
  - 3.1.2 Trees, Shrubs, and Existing Facilities
  - 3.1.3 Utility Lines
- 3.2 CLEARING
- 3.3 TREE REMOVAL
- 3.4 PRUNING
- 3.5 GRUBBING
- 3.6 DISPOSAL OF MATERIALS
  - 3.6.1 Saleable Timber
  - 3.6.2 Nonsaleable Materials

-- End of Section Table of Contents --

\*\*\*\*\*  
USACE / NAVFAC / AFCESA UFGS-02231 (September 2003)  
-----

Preparing Activity: USACE Superseding  
UFGS-02231 (July 2002)

## UNIFIED FACILITIES GUIDE SPECIFICATIONS

References are in agreement with UMRL dated 25 June 2004

\*\*\*\*\*

### SECTION 02231

#### CLEARING AND GRUBBING 09/03

\*\*\*\*\*

NOTE: This guide specification covers the requirements for clearing and grubbing.

Comments and suggestions on this guide specification are welcome and should be directed to the technical proponent of the specification. A listing of technical proponents, including their organization designation and telephone number, is on the Internet.

Recommended changes to a UFGS should be submitted as a Criteria Change Request (CCR).

Use of electronic communication is encouraged.

Brackets are used in the text to indicate designer choices or locations where text must be supplied by the designer.

\*\*\*\*\*

## PART 1 GENERAL

\*\*\*\*\*

NOTE: When this specification is used for hazardous waste site remediations, define what materials generated from clearing, grubbing, and tree removal are contaminated and what materials are non-contaminated. The decision on how to define contaminated and non-contaminated materials must be made by the appropriate regulatory authorities and documented in the design analysis.

The following information shall be shown on the project drawings:

1. Limits of clearing
2. Limits of grubbing
3. Trees and shrubs to remain in area to be cleared

4. Trees to be removed in areas which are not to be cleared

5. Describe size, density, and type of trees to be cleared and grubbed.

\*\*\*\*\*

#### 1.1 SUBMITTALS

\*\*\*\*\*

NOTE: Submittals must be limited to those necessary for adequate quality control. The importance of an item in the project should be one of the primary factors in determining if a submittal for the item should be required.

A "G" following a submittal item indicates that the submittal requires Government approval. Some submittals are already marked with a "G". Only delete an existing "G" if the submittal item is not complex and can be reviewed through the Contractor's Quality Control system. Only add a "G" if the submittal is sufficiently important or complex in context of the project.

For submittals requiring Government approval on Army projects, a code of up to three characters within the submittal tags may be used following the "G" designation to indicate the approving authority. Codes for Army projects using the Resident Management System (RMS) are: "AE" for Architect-Engineer; "DO" for District Office (Engineering Division or other organization in the District Office); "AO" for Area Office; "RO" for Resident Office; and "PO" for Project Office. Codes following the "G" typically are not used for Navy projects.

Submittal items not designated with a "G" are considered as being for information only for Army projects and for Contractor Quality Control approval for Navy projects.

\*\*\*\*\*

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are [for Contractor Quality Control approval.] [for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government.] The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-03 Product Data

Nonsaleable Materials[; G][; G, [\_\_\_\_\_]]

Written permission to dispose of such products on private property shall be filed with the Contracting Officer.

SD-04 Samples

Tree wound paint

Herbicide

Submit samples in cans with manufacturer's label.

## 1.2 DELIVERY, STORAGE, AND HANDLING

Deliver materials to, store at the site, and handle in a manner which will maintain the materials in their original manufactured or fabricated condition until ready for use.

## PART 2 PRODUCTS

### 2.1 TREE WOUND PAINT

Bituminous based paint of standard manufacture specially formulated for tree wounds.

### 2.2 HERBICIDE

\*\*\*\*\*  
NOTE: Specify by generic name. Spraying of herbicides should be prohibited near vegetation to be saved; if deemed necessary, this may be made more controllable by careful selection of herbicides. Recommended types and rate of coverage should be obtained from recognized authorities. When grubbing is included as part of the contract, delete requirements for herbicides.  
\*\*\*\*\*

[\_\_\_\_]. Comply with Federal Insecticide, Fungicide, and Rodenticide Act (Title 7 U.S.C. Section 136) for requirements on contractor's licensing, certification and record keeping. Contact the command Pest Control Coordinator prior to starting work.

## PART 3 EXECUTION

### 3.1 PROTECTION

#### 3.1.1 Roads and Walks

Keep roads and walks free of dirt and debris at all times.

#### 3.1.2 Trees, Shrubs, and Existing Facilities

[Protection shall be in accordance with Section 01575N, TEMPORARY ENVIRONMENTAL CONTROLS.] [Trees and vegetation to be left standing shall be protected from damage incident to clearing, grubbing, and construction operations by the erection of barriers or by such other means as the circumstances require.]

#### 3.1.3 Utility Lines

Protect existing utility lines that are indicated to remain from damage. Notify the Contracting Officer immediately of damage to or an encounter with an unknown existing utility line. The Contractor shall be responsible

for the repairs of damage to existing utility lines that are indicated or made known to the Contractor prior to start of clearing and grubbing operations. When utility lines which are to be removed are encountered within the area of operations, the Contractor shall notify the Contracting Officer in ample time to minimize interruption of the service. Refer to Section 01310N, ADMINISTRATIVE REQUIREMENTS and Section 01575N, TEMPORARY ENVIRONMENTAL CONTROLS for additional utility protection.

### 3.2 CLEARING

\*\*\*\*\*

**NOTE:** Any clearing which requires the removal and disposal of structures that obtrude, encroach upon, or otherwise obstruct the work should be indicated and specified in the Section 02220 DEMOLITION.

When grubbing is included as part of the contract, delete requirements for herbicides.

Where loose rocks, boulders, or rock piles are present on the surface of the areas designated to be cleared, appropriate provisions will be inserted to provide for the disposal of such material. Where stone occurs that can be economically used in the project, provision will be made for the proper stockpiling of such stone in a designated area adjacent to the location of its intended use.

If only minor structures will be encountered, such work may be included. Where large structures are to be demolished, the requirements of this work will be covered in Section 02220 DEMOLITION.

Herbicides intended for controlling vegetative growth should be specified and used with caution on hazardous waste sites to avoid contributing to site contamination.

\*\*\*\*\*

Clearing shall consist of the felling, trimming, and cutting of trees into sections and the satisfactory disposal of the trees and other vegetation designated for removal, including downed timber, snags, brush, and rubbish occurring within the areas to be cleared. [Clearing shall also include the removal and disposal of structures that obtrude, encroach upon, or otherwise obstruct the work.] Trees, stumps, roots, brush, and other vegetation in areas to be cleared shall be cut off flush with or below the original ground surface, except such trees and vegetation as may be indicated or directed to be left standing. Trees designated to be left standing within the cleared areas shall be trimmed of dead branches 40 mm 1-1/2 inches or more in diameter and shall be trimmed of all branches the heights indicated or directed. Limbs and branches to be trimmed shall be neatly cut close to the bole of the tree or main branches. Cuts more than 40 mm 1-1/2 inches in diameter shall be painted with an approved tree-wound paint. Apply herbicide [at the rate of [\_\_\_\_]] [in accordance with the manufacturer's label] to the top surface of stumps designated not to be removed.

### 3.3 TREE REMOVAL

Where indicated or directed, trees and stumps that are designated as trees shall be removed from areas outside those areas designated for clearing and grubbing. This work shall include the felling of such trees and the removal of their stumps and roots as specified in paragraph GRUBBING. Trees shall be disposed of as specified in paragraph DISPOSAL OF MATERIALS.

### 3.4 PRUNING

[Prune] [Trim] trees designated to be left standing within the cleared areas of dead branches 38 mm 1 1/2 inches or more in diameter; and trim branches to heights and in a manner as indicated. Neatly cut limbs and branches to be trimmed close to the bole of the tree or main branches. Paint cuts more than 32 mm 1 1/4 inches in diameter with an approved tree wound paint.

### 3.5 GRUBBING

\*\*\*\*\*

NOTE: Delete the second sentence when this work is included under another section or sections of the project specification.

For hazardous waste sites, the amount of grubbing performed in contaminated areas should be minimized due to potential added costs for disposal of contaminated materials and health and safety concerns.

\*\*\*\*\*

Grubbing shall consist of the removal and disposal of stumps, roots larger than 75 mm 3 inches in diameter, and matted roots from the designated grubbing areas. Material to be grubbed, together with logs and other organic or metallic debris not suitable for foundation purposes, shall be removed to a depth of not less than 455 mm 18 inches below the original surface level of the ground in areas indicated to be grubbed and in areas indicated as construction areas under this contract, such as areas for buildings, and areas to be paved. Depressions made by grubbing shall be filled with suitable material and compacted to make the surface conform with the original adjacent surface of the ground.

### 3.6 DISPOSAL OF MATERIALS

#### 3.6.1 Saleable Timber

\*\*\*\*\*

NOTE: Do not include this article in SOUTHNAVFACENGCOM projects. Instead, notify the Project Manager, obtain an estimated value if timber is saleable, and include the following in the BASIS OF BIDS statement: "Bidders are advised that there is marketable standing timber, having fair market value which the Government appraises to be \$\_\_\_\_\_, within the limits of construction. The Contractor is required to pay the appraised amount to the Government within 30 days after notice to proceed has been given. This is to be deposited in the Navy's forestry account."

Verify with the natural resources office for the installation the most appropriate option.

The first option should be used when the Contractor will be required to cut and stack saleable lumber for the Government.

The second option should be used when the Government will harvest saleable timber prior to award of the contract.

The third option should be used when the Contractor will be required to pay the Government an appraised amount for the saleable timber on the project site. Use of the third option must be approved by EFD/EFA legal counsel for NAVFAC projects. When the felled timber has a distinct commercial value, the disposal of such timber may be left to the Contractor provided the Contracting Officer has reasonable assurance that the bidders will consider the value of the salvageable timber in estimating their bids. An applicable length will be inserted in the blank. At hazardous waste sites, timber removed from areas of contamination is normally not salable due to liability concerns.

The fourth option should be used when the disposition of cleared materials is left to the Contractor's discretion. When the timber that can be obtained from felled trees is not of sufficient commercial value to warrant salvaging, this paragraph may be deleted, and the Contractor permitted either to make use of or to dispose of such timber in an approved manner.

When this specification is being used for the remediation of hazardous waste sites, this paragraph should define how both contaminated and non-contaminated materials will be disposed of. As an alternative, disposal requirements could be outlined in a separate section. The design analysis should document how both contaminated and non-contaminated materials will be disposed of.

\*\*\*\*\*

[Consider felled timber from which saw logs, pulpwood, posts, poles, ties, or fuelwood can be produced as saleable timber. Trim limbs and tops, and saw into saleable lengths of [\_\_\_\_\_] meters feet for saw logs, [\_\_\_\_\_] meters feet for pulpwood, [\_\_\_\_\_] meters feet for poles, [\_\_\_\_\_] meters feet for ties, and [\_\_\_\_\_] meters feet for fuelwood, and stockpile adjacent to the site. The stockpile timber will remain the property of the Government.]

[The Government shall, by separate contract, harvest all saleable timber from the project site. All remaining timber, limbs, tops, stumps, and debris shall be cleared and disposed of by the Contractor as specified.]

[All timber removed from the project site shall become the property of the Contractor. The Contractor shall reimburse the Government for the value of

the timber (which the Government has appraised at \$[\_\_\_\_]). The Contractor shall submit payment to the Contracting Officer by cashier's or certified check in the amount of \$[\_\_\_\_], made payable to the U.S. Treasury. Payment shall be made within 30 days of the Notice to Proceed. The Contracting Officer shall deposit the check into the [Navy Forestry] [\_\_\_\_] account.]

[All timber on the project site noted for clearing [and grubbing] shall become the property of the Contractor, and shall be removed from the project site and disposed of off stations.]

### 3.6.2 Nonsaleable Materials

Logs, stumps, roots, brush, rotten wood, and other refuse from the clearing and grubbing operations, except for salable timber, shall be disposed of [in the designated waste disposal area] [outside the limits of Government-controlled land at the Contractor's responsibility] [by burning], except when otherwise directed in writing. Such directive will state the conditions covering the disposal of such products and will also state the areas in which they may be placed. [Refuse to be burned shall be burned at specified locations and in a manner to prevent damage to existing structures and appurtenances, construction in progress, trees, and other vegetation. The Contractor shall be responsible for compliance with all Federal and State laws and regulations and with reasonable practice relative to the building of fires. Burning or other disposal of refuse and debris and any accidental loss or damage attendant thereto shall be the Contractor's responsibility.]

-- End of Section --