

SECTION 02151 - CLEARING AND GRUBBING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. The General Provision of the contract, including the General Provisions for Construction Projects (2016), Special Provisions, and General Requirements of the Specifications, apply to the work specified in this section.
- B. This Section shall be in accordance with FAA Specification Item P-151 – Clearing and Grubbing, as included as an attachment to this Section

1.2 SUMMARY

This Section includes the requirements for clearing or clearing and grubbing, including the disposal of materials, for all areas within the limits designated on the plans or as required by the Engineer.

1.3 REFERENCES

- A. FAA Specifications Item 151 – Clearing and Grubbing, as included as an attachment to this Section
- B. Section 02101, Preparation/Removal of Existing Pavements

1.4 SUBMITTALS

Not applicable to this section.

1.5 GENERAL REQUIREMENTS

The Contractor shall clear areas as shown on the Plans and as necessary to complete the Work. In addition, the Contractor shall do the following when performing any Excavation, Subgrade, and Embankment Work:

- A. Survey existing conditions and correlate the conditions and boundaries with the work required so to determine the extent of excavation.
- B. Show the earthwork schedule on all progress schedules.
- C. Verify that benchmarks, field survey markings, and all measurements are accurate and sufficiently precise. Verify that said benchmarks and markings are not located in an area that may be impacted by the earthwork, and report benchmarks and markings that conflict with the Work to the Engineer.
- D. Protect all survey monuments at the Site during the course of all Work.

- E. Report in writing to the Engineer temporary or intermittent prevailing conditions that will adversely affect satisfactory execution of the work of this Section. Do not proceed with work until unsatisfactory conditions either are corrected or have changed to the satisfaction of the Engineer.
- F. Note all subsurface existing conditions as described in the Contract Documents and referenced studies, and notify the Engineer of all changed conditions.
- G. Identify all utilities to remain and verify that utilities to be removed have been disconnected and capped.
- H. Whenever a utility is encountered and must be removed or relocated, schedule the removal and coordinate with the Engineer and utility owner sufficiently in advance of the removal so that services to existing facilities are not disrupted.
- I. Keep dust generation to a minimum and in compliance with Section 01560, *Environmental Controls*.
- J. Immediately report to the Engineer any soil or water that is visibly stained, discolored, shiny, oily, has evidence of burn activities, has a noticeable solvent-like or hydrocarbon odor, or appears to be slag.

PART 2 - PRODUCTS

Not applicable to this section.

PART 3 - EXECUTION

3.1 DEMOLISH AND REMOVE PAVEMENT AND MISCELLANEOUS ITEMS

- A. Demolish and remove existing pavements, utilities, abandoned foundations, and other materials within the limit of work per Section 02101 Preparation/Removal of Existing Pavements.

3.2 SOIL MATERIAL EXCAVATION AND REMOVAL

Excavation, subgrade preparation, disposal, placement, and compaction of all soil materials shall be per Item P-152, Excavation, Subgrade, and Embankment.

3.3 EXISTING UTILITIES ABANDONMENT

The Contractor shall abandon existing utilities as noted on the Plans and seal the ends of abandoned utilities as per details shown on the plans.

PART 4 MEASUREMENT AND PAYMENT

4.1 METHOD OF MEASUREMENT

- A. Method of measurement and payment shall be in accordance with FAA Specification Item P-151, paragraph 151-3.1.

4.2 BASIS OF PAYMENT

- A. Basis for payment shall be in accordance with FAA Specification Item P-151, paragraph 151-4.1.

PART 5 - ATTACHMENTS

5.1 FAA SPECIFICATIONS

- A. P-151, Clearing and Grubbing

END OF SECTION 02151

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ITEM P-151 CLEARING AND GRUBBING

DESCRIPTION

151-1.1 This item shall consist of clearing or clearing and grubbing, including the disposal of materials, for all areas within the limits designated on the plans or as required by the Resident Project Representative (RPR).

a. Clearing shall consist of the cutting and removal of all trees, stumps, brush, logs, hedges, the removal of fences and other loose or projecting material from the designated areas. The grubbing of stumps and roots will not be required.

b. Clearing and grubbing shall consist of clearing the surface of the ground of the designated areas of all trees, stumps, down timber, logs, snags, brush, undergrowth, hedges, heavy growth of grass or weeds, fences, structures, debris, and rubbish of any nature, natural obstructions or such material which in the opinion of the RPR is unsuitable for the foundation of strips, pavements, or other required structures, including the grubbing of stumps, roots, matted roots, foundations, and the disposal from the project of all spoil materials resulting from clearing and grubbing.

c. Tree Removal. Tree Removal shall consist of the cutting and removal of isolated single trees or isolated groups of trees, and the grubbing of stumps and roots. The removal of all the trees of this classification shall be in accordance with the requirements for the particular area being cleared.

CONSTRUCTION METHODS

151-2.1 General. The areas denoted on the plans to be cleared and grubbed shall be staked on the ground by the Contractor as indicated on the plans.

The removal of existing structures and utilities required to permit orderly progress of work shall be accomplished by local agencies, unless otherwise shown on the plans. Whenever a telephone pole, pipeline, conduit, sewer, roadway, or other utility is encountered and must be removed or relocated, the Contractor shall advise the RPR who will notify the proper local authority or owner to secure prompt action.

151-2.1.1 Disposal. All materials removed by clearing or by clearing and grubbing shall be disposed of outside the Airport's limits at the Contractor's responsibility, except when otherwise directed by the RPR. As far as practicable, waste concrete and masonry shall be placed on slopes of embankments or channels. When embankments are constructed of such material, this material shall be placed in accordance with requirements for formation of embankments. Any broken concrete or masonry that cannot be used in construction and all other materials not considered suitable for use elsewhere, shall be disposed of by the Contractor. In no case, shall any discarded materials be left in windrows or piles adjacent to or within the airport limits. The manner and location of disposal of materials shall be subject to the approval of the RPR and shall not create an unsightly or objectionable view. When the Contractor is required to locate a disposal area outside the airport property limits, the Contractor shall obtain and file with the RPR permission in writing from the property owner for the use of private property for this purpose.

151-2.1.2 Blasting. Blasting shall not be allowed.

151-2.2 Clearing. The Contractor shall clear the staked or indicated area of all materials as indicated on the plans. Trees unavoidably falling outside the specified clearing limits must be cut up, removed, and disposed of in a satisfactory manner. To minimize damage to trees that are to be left standing, trees shall be felled toward the center of the area being cleared. The Contractor shall preserve and protect from injury all trees not to be removed. The trees, stumps, and brush shall be cut flush with the original ground surface. The grubbing of stumps and roots will not be required.

Fences shall be removed and disposed of as directed by the RPR. Fence wire shall be neatly rolled and the wire and posts stored on the airport if they are to be used again, or stored at a location designated by the RPR if the fence is to remain the property of a local owner or authority.

151-2.3 Clearing and grubbing. In areas designated to be cleared and grubbed, all stumps, roots, buried logs, brush, grass, and other unsatisfactory materials as indicated on the plans, shall be removed, except where embankments exceeding 3-1/2 feet (105 cm) in depth will be constructed outside of paved areas. For embankments constructed outside of paved areas, all unsatisfactory materials shall be removed, but sound trees, stumps, and brush can be cut off flush with the original ground and allowed to remain. Tap roots and other projections over 1-1/2 inches (38 mm) in diameter shall be grubbed out to a depth of at least 18 inches (0.5 m) below the finished subgrade or slope elevation.

Any buildings and miscellaneous structures that are shown on the plans to be removed shall be demolished or removed, and all materials shall be disposed of by removal from the site. The cost of removal is incidental to this item. The remaining or existing foundations, wells, cesspools, and like structures shall be destroyed by breaking down the materials of which the foundations, wells, cesspools, etc., are built to a depth at least 2 feet (60 cm) below the existing surrounding ground. Any broken concrete, blocks, or other objectionable material that cannot be used in backfill shall be removed and disposed of at the Contractor's expense. The holes or openings shall be backfilled with acceptable material and properly compacted.

All holes in embankment areas remaining after the grubbing operation shall have the sides of the holes flattened to facilitate filling with acceptable material and compacting as required in Item P-152. The same procedure shall be applied to all holes remaining after grubbing in areas where the depth of holes exceeds the depth of the proposed excavation.

METHOD OF MEASUREMENT

151-3.1 All work under this section will not be measured for payment.

BASIS OF PAYMENT

151-4.1 Items covered by this section will be paid by lump sum. The contract price paid shall be for full compensation for furnishing and placing all materials and all labor, equipment, tools, and incidentals necessary for each of the construction phases.

Payment will be made under:

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
02151.1A	Clearing and Grubbing (Phases 0 through 3)	Lump Sum

END OF ITEM P-151

END OF SECTION 02151