
USACE / NAVFAC / AFCEC UFGS-01 35 13 (November 2020)
Change 1 - 02/22

Preparing Activity: NAVFAC Superseding
UFGS-01 35 13 (November 2011)
UFGS-01 35 13.05 20 (November 2007)

UNIFIED FACILITIES GUIDE SPECIFICATIONS

References are in agreement with UMRL dated January 2025

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01 35 13

SPECIAL PROJECT PROCEDURES

11/20, CHG 1: 02/22

PART 1 GENERAL

- 1.1 REFERENCES
- 1.2 DEFINITIONS
 - 1.2.1 Landing Areas
 - 1.2.2 Safety Precaution Areas
 - 1.2.3 Federal Aviation Administration (FAA) Notice of Proposed Construction or Alteration
- 1.3 SUBMITTALS

PART 2 PRODUCTS

- 2.1 AIRFIELD OBSTRUCTION LIGHTS

PART 3 EXECUTION

- 3.1 HAZARDS TO [AIRFIELD][HELIPORT] OPERATION
 - 3.1.1 Work in Proximity to [Landing Areas] [Landing Strips] [Landing Pad(s)]
 - 3.1.2 Contractor FAA Notification
 - 3.1.3 Schedule of Work/Aircraft Operating Schedules
 - 3.1.3.1 Construction Operations Plan
 - 3.1.3.2 Existing Conditions Survey
 - 3.1.4 Daytime Markings
 - 3.1.5 Nighttime Markings
 - 3.1.6 Excavation
 - 3.1.7 Contractor Safety Precautions
 - 3.1.8 Base Civil Engineering (BCE) Work Clearance Request
 - 3.1.9 Radio Contact
- 3.2 HARBOR WATERWAYS
 - 3.2.1 Hazards to Navigation
 - 3.2.2 Submarine Cables or Underwater Utilities
 - 3.2.3 RIMPAC Operational Exercises

- 3.2.4 December 7, 1941 Commemorative Ceremonies
- 3.2.5 Annual Pearl Harbor "Hydrofest"
- 3.3 MODEL UNIT
 - 3.3.1 Model Unit Description
 - 3.3.2 Model Unit Requirements
 - 3.3.3 Model Unit Levels of Completion

-- End of Section Table of Contents --

USACE / NAVFAC / AFCEC

UFGS-01 35 13 (November 2020)

Change 1 - 02/22

Preparing Activity: NAVFAC

Superseding

UFGS-01 35 13 (November 2011)

UFGS-01 35 13.05 20 (November 2007)

UNIFIED FACILITIES GUIDE SPECIFICATIONS

References are in agreement with UMRL dated January 2025

SECTION 01 35 13

SPECIAL PROJECT PROCEDURES

11/20, CHG 1: 02/22

NOTE: This guide specification covers the requirements for special procedures for airfields, heliports, harbors and repetitive military housing facilities.

Adhere to [UFC 1-300-02](#) Unified Facilities Guide Specifications (UFGS) Format Standard when editing this guide specification or preparing new project specification sections. Edit this guide specification for project specific requirements by adding, deleting, or revising text. For bracketed items, choose applicable item(s) or insert appropriate information.

Remove information and requirements not required in respective project, whether or not brackets are present.

Comments, suggestions and recommended changes for this guide specification are welcome and should be submitted as a [Criteria Change Request \(CCR\)](#).

NOTE: This guide specification includes tailoring for AIR FORCE, NAVY, NAVY DESIGN-BUILD and NAVFAC HI projects. Where an Editor's Note states a paragraph is tailored for a Service or project type, the content of the paragraph, or a portion of the paragraph, is suited specifically to be included only for that Service or project type

PART 1 GENERAL

1.1 REFERENCES

NOTE: This paragraph is used to list the publications cited in the text of the guide specification. The publications are referred to in the text by basic designation only and listed in this paragraph by organization, designation, date, and title.

Use the Reference Wizard's Check Reference feature when you add a Reference Identifier (RID) outside of the Section's Reference Article to automatically place the reference in the Reference Article. Also use the Reference Wizard's Check Reference feature to update the issue dates.

References not used in the text will automatically be deleted from this section of the project specification when you choose to reconcile references in the publish print process.

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

U.S. Code (USC)

49 USC 44718 Structures Interfering with Air Commerce
or National Security

49 USC 46301 Civil Penalties

U.S. FEDERAL AVIATION ADMINISTRATION (FAA)

FAA AC 70/7460-1 (2016; Rev L; Change 2) Obstruction
Marking and Lighting

FAA AC 150/5300-13 (2022; Rev B) Airport Design

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

14 CFR 77 Safe, Efficient Use, and Preservation of
the Navigable Airspace

1.2 DEFINITIONS

NOTE: Retain this Article only when Part 3 Article
HAZARDS TO [AIRFIELD][HELIPORT] OPERATIONS is
retained.

1.2.1 Landing Areas

"Landing Areas" means:

- a. The primary surfaces, comprising the surface of the runway, runway shoulders, and lateral safety zones. The length of each primary surface is the same as the runway length. The width of each primary surface is 609.6 meters 2000 feet (304.8 meters 1000 feet on each side

of the runway centerline).[Exceptions: Some airfields are based on a primary width of 457.2 meters 1500 feet (228.6 meters 750 feet on each side of the runway centerline). In such instances, substitute the proper width in the applicable statements.]

- b. The "clear zone" beyond the ends of each runway is the extension of the primary surface for a distance of 914.4 meters 3000 feet in length for fixed wing aircraft and 121.92 meters 400 feet in length for helicopter only runways beyond each end of each runway.
- c. All taxiways, plus the lateral clearance zones along each side for the length of the taxiways (the outer edge of each lateral clearance zone is laterally 76.2 meters 250 feet from the far or opposite edge of the taxiway (example: a 22.86 meter 75 foot wide taxiway must have a combined width and lateral clearance zone of 129.54 meters 425 feet.))
- d. All aircraft parking aprons, plus the area 38.1 meters 125 feet in width extending beyond each edge around the aprons.

1.2.2 Safety Precaution Areas

"Safety Precaution Areas" means those portions of approach-departure clearance zones and transitional zones where placement of objects incident to Contract performance might result in vertical projections at or above the approach-departure clearance, or the transitional surface.

- a. The "approach-departure clearance surface" is an extension of the primary surface and the clear zone at each end of each runway, for a distance of 15240 meters 50,000 feet, first along an inclined (glide angle) and then along a horizontal plane, both flaring symmetrically about the runway centerline extended.
 - (1) The inclined plane (glide angle) begins in the clear zone 61 meters 200 feet past the end of the runway (and primary surface) at the same elevation as the end of the runway. It continues upward at a slope of 50:1 (0.305 meters one foot vertically for each 15.24 meters 50 feet horizontally) to an elevation of 152.4 meters 500 feet above the established airfield elevation. At that point the plane becomes horizontal, continuing at that same uniform elevation to a point 15240 meters 50,000 feet longitudinally from the beginning of the inclined plane (glide angle) and ending there.
 - (2) The width of the surface at the beginning of the inclined plane (glide angle) is the same as the width of the clear zone. It then flares uniformly, reaching the maximum width of 4876.8 meters 16,000 feet at the end.
- b. The "approach-departure clearance zone" is the ground area under the approach-departure clearance surface.
- c. The "transitional surface" is a sideways extension of all primary surfaces, clear zones, and approach-departure clearance surfaces along inclined planes.
 - (1) The inclined plane in each case begins at the edge of the surface.
 - (2) The slope of the incline plane is 7:1 (.305 meters one foot vertically for each 2.13 meters 7 feet horizontally). It

continues to the point of intersection with the:

- (a) Inner horizontal surface (which is the horizontal plane 45.72 meters 150 feet above the established airfield elevation); or
 - (b) Outer horizontal surface (which is the horizontal plane 152.4 meters 500 feet above the established airfield elevation), whichever is applicable.
- d. The "transitional zone" is the ground area under the transitional surface. (It adjoins the primary surface, clear zone, and approach-departure clearance zone.)

1.2.3 Federal Aviation Administration (FAA) Notice of Proposed Construction or Alteration

- a. FAA Notice of Proposed Construction or Alteration may be required in accordance with 49 USC 44718 and 14 CFR 77, depending on height of construction equipment on site, height of temporary structures, proximity to an airport or heliport, and specific location of equipment or temporary structure. For the purpose of notifying the FAA, proximity is defined as within 5 nautical miles of a Government or civilian airfield, including landing areas, taxiways, runways and helicopter pads.
- b. In order to determine if a FAA Notice of Proposed Construction or Alteration is required, refer to 14 CFR 77 Subpart B. Alternately, utilize the FAA's Notice Criteria Tool located at: <https://oeaaa.faa.gov/oeaaa/external/portal.jsp>. The FAA will determine if the equipment or temporary structure exceeds obstruction standards and may pose a hazard to air navigation.
- c. Failure to comply with the provisions of 14 CFR 77 are subject to Civil Penalty under Section 902 of the Federal Aviation Act of 1958, as amended and pursuant to 49 USC 46301 Subpart (a).

1.3 SUBMITTALS

NOTE: Review Submittal Description (SD) definitions in Section 01 33 00 SUBMITTAL PROCEDURES and edit the following list, and corresponding submittal items in the text, to reflect only the submittals required for the project. The Guide Specification technical editors have classified those items that require Government approval, due to their complexity or criticality, with a "G." Generally, other submittal items can be reviewed by the Contractor's Quality Control System. Only add a "G" to an item if the submittal is sufficiently important or complex in context of the project.

For Army projects, fill in the empty brackets following the "G" classification, with a code of up to three characters 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 and Air Force projects.

The "S" classification indicates submittals required as proof of compliance for sustainability Guiding Principles Validation or Third Party Certification and as described in Section 01 33 00 SUBMITTAL PROCEDURES.

NOTE: For Navy Design-Build projects, delete 01 33 00 SUBMITTAL PROCEDURES, and replace with UFGS 01 33 00.05 20 CONSTRUCTION SUBMITTAL PROCEDURES and UFGS 01 33 10.05 20 DESIGN SUBMITTAL PROCEDURES.

Government approval is required for submittals with a "G" or "S" classification. Submittals not having a "G" or "S" classification are for Contractor Quality Control approval. Submittals not having a "G" or "S" classification are for information only. When used, a code following the "G" classification identifies the office that will review the submittal for the Government. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

[Heavy Equipment and Vehicle List

][Existing Conditions Survey

] FAA Form 7460-1

FAA Form 7460-2

Construction Operations Plan

[Watercraft List

][SD-04 Samples

Model Unit

]PART 2 PRODUCTS

2.1 AIRFIELD OBSTRUCTION LIGHTS

NOTE: Retain this Article when Part 3 Article HAZARDS TO [AIRFIELD][HELIPORT] OPERATIONS is retained; otherwise delete this Article and add "Not used.".

Airfield obstruction lights must be in accordance with FAA AC 70/7460-1 and have red or white lenses.

PART 3 EXECUTION

[3.1 HAZARDS TO [AIRFIELD][HELIPORT] OPERATION

NOTE: Include this Article and the applicable paragraphs in projects where work will occur on or near aircraft runways, taxiways, or similar aircraft operational facilities. Use the term ["landing strip"] ["landing pad"] when dealing with heliports. Use the term "landing area(s)" when dealing with airplanes. Use the term "Operations Officer," except as directed otherwise.

In addition to DFARS 252.236-7005 Airfield Safety Precautions, the following paragraphs apply.

3.1.1 Work in Proximity to [Landing Areas] [Landing Strips] [Landing Pad(s)]

Place nothing upon the landing area or applicable portions of safety precaution areas without authority of the Contracting Officer.

Use of [landing areas] [landing strips] [landing pads] for purposes other than aircraft operation, is prohibited without permission of the Contracting Officer, and the [landing area] [landing strip] [landing pad] is closed by order of the Contracting Officer and marked as indicated herein.

Accomplish all construction work on [the runways, taxiways, and parking aprons and in the end zones of the runways and 23 m 75 feet to each side of the runways and taxiways][the landing strip, 23 m 75 feet to each side thereof, and on the taxiways and parking aprons][the landing pad(s)]with extreme care regarding the operation of aircraft. Cooperate closely, and coordinate with [the Operations Officer and]the Contracting Officer. Park equipment in an area designated by the Contracting Officer. Parking of equipment, vehicles, or any storage features overnight or for any extended period of time in the proximity of the [landing areas or taxiways][landing strip][landing pad]is strictly prohibited. Leave no material in areas where extreme care is to be taken regarding the operation of aircraft.

During periods of active performance of work on the airfield by the Contractor, govern all operations of mobile equipment in accordance with the safety provisions.

3.1.2 Contractor FAA Notification

When required in accordance with 49 USC 44718 and 14 CFR 77, submit FAA Form 7460-1 and attachments directly to the FAA a minimum of 60 calendar days prior to the start date of the operations that may affect air traffic. Submit supplemental notification FAA Form 7460-2 to the FAA within 48 hours prior to start of the construction. Simultaneous with submission to the FAA, submit both forms to the Contracting Officer for information. It is the Contractor's responsibility to notify the FAA when required.

3.1.3 Schedule of Work/Aircraft Operating Schedules

Schedule work to conform to aircraft operating schedules. The Government will exert every effort to schedule aircraft operations so as to permit the maximum amount of time for the Contractor's activities; however, in the event of emergency, intense operational demands, adverse wind conditions, and other such unforeseen difficulties, the Contractor must cease operations at the specified locations in the aircraft operational area for the safety of the Contractor and military personnel and Government property. Submit a schedule of the work to the Contracting Officer [for transmittal to the Operations Officer]describing the work to be accomplished; the location of the work, noting distances from the ends of [landing areas, taxiways][landing strips][landing pads]and buildings and other structures as necessary; and dates and hours during which the work is to be accomplished. Keep the approved schedule of work current, and notify the Contracting Officer of changes prior to beginning each day's work.

Where flying is controlled, obtain permission from the control tower operator to enter a landing area unless such area is marked as hazardous to aircraft.

3.1.3.1 Construction Operations Plan

Submit a [Construction Operations Plan](#) prior to the start of work that includes a description of the airfield work to be accomplished; the exact location of the work, noting distances from the ends of [landing areas, taxiways][landing strips][landing pads]and buildings and other structures as necessary; and dates and hours during which the work is to be accomplished. Keep the approved schedule of work current and notify the Contracting Officer of changes prior to beginning each day's work.

[3.1.3.2 Existing Conditions Survey

Perform an [Existing Conditions Survey](#) and submit results to the Government prior to the start of work. As part of this survey, inspect the work site to identify existing conditions located within the vicinity of the contract work. Utilize original as-builts if available showing possible utilities, type of pavement, thickness, airfield lighting, equipment, vehicles, structures, and parked aircraft. Unless already specified in the Contract documents, utilize the RFI process to clarify responsibility for relocating appurtenances that will interfere with work. If the site is opened up (in/under construction), update the existing survey condition to include the actual condition of the underlying conditions such as sub base, base, and pavement thickness.

]3.1.4 Daytime Markings

During daylight, mark stationary and mobile equipment with international orange and white checkered flags, mark the material, and work with yellow flags.

Submit a [Heavy Equipment and Vehicle List](#) identifying all stationary and mobile equipment and vehicles that will be operating on the airfield. All equipment and vehicles must be identified by means of a flag on a staff attached to and flying above the vehicle. Flag size must be not less than [one meter 3 feet](#) square and consist of a checkered pattern of international orange and white squares not less than [300 millimeter one foot](#) on each side. Flags varying in any dimension by not more than 10

percent of the specified dimensions are considered to comply with the stated requirements.

3.1.5 Nighttime Markings

During nighttime, which begins 2-hours before sundown and ends 2-hours after sunrise, mark stationary and mobile equipment and material, and work with [red lanterns][battery-operated, low-intensity, red flasher lights]. Where the [Operations Officer][Contracting Officer]determines that the [red lanterns][red flasher lights]may confuse pilots approaching for landings, the [Operations Officer][Contracting Officer]may direct that the [red lanterns][red flasher lights]be left off or that the color of the [globes][lights]be changed.

Provide lighting in accordance with FAA AC 70/7460-1. Provide a minimum of two aviation red or high intensity white obstruction lights on temporary structures (including cranes) over 30 meter 100 feet above ground level. Lights must be operational during periods of reduced visibility, darkness, and as directed by the Contracting Officer.

No separate payments will be made for lighting and protection necessitated by the safety provisions.

[3.1.6 Excavation

Open only those trenches for which material is on hand and ready for placing therein. As soon as possible after the material has been placed and work approved, backfill and compact the trenches as specified.

Maintain [landing areas][landings strips][landing pads]at all times free from hazards, holes, material piles, or projecting shoulders that might damage tires or landing gear. Keep paved surfaces clean at all times and free from small stones or other objects which could cause damage to propellers, craft, and personnel.

]3.1.7 Contractor Safety Precautions

The Contractor is advised that aircraft operations will produce extremely high noise levels and will induce vibrations in pavements, structures, and equipment in the vicinity, and may result in high velocity flying debris in the area. These anticipated hazards must be appropriately addressed in the Activity Hazard Analysis (AHA) associated with airfield work - the Activity Hazard Analysis must be in accordance with Section 01 35 26 GOVERNMENTAL SAFETY REQUIREMENTS. The Contractor is responsible for providing personal protective equipment (PPE) and other safety devices required to ensure protection of contractor personnel and equipment. Schedule the work to eliminate hazards to personnel and equipment and to prevent damage to work performed.

Boundary areas for hazardous work locations and restrictions are defined in FAA AC 150/5300-13. Construction activity within the limits of the boundary areas without approval of the Contracting Officer is prohibited.

]3.1.8 Base Civil Engineering (BCE) Work Clearance Request

NOTE: The following paragraph is tailored for Air
Force projects. Include only for Air Force projects.

Obtain an approved BCE Work Clearance Request, AF Form 103, prior to the start of excavation, digging work, or work that disrupts aircraft or vehicular traffic flow, base utility services, fire and intrusion alarm system, or routine activities of the Activity.

3.1.9 Radio Contact

Provide necessary battery powered portable radios, including one radio for the tower. During work within the landing area, have an operator (who speaks fluent English) available for radio contact with the tower at all times. Obtain approval of radio frequency from the tower.

] [3.2 HARBOR WATERWAYS

NOTE: Include this Article and the applicable paragraphs when the project involves work in navigable waterways. In the following paragraph, include the bracketed statements for projects at Pearl Harbor, or insert the name of the applicable waterway(s).

In addition to DFARS 252.236-7002 Obstruction of Navigable Waterways, obtain from the [Operations Officer at the Naval Base, Pearl Harbor via the] [_____] Contracting Officer, permission to use [Pearl Harbor] [_____] waterways and the regulations and directives governing such usage. Submit a [watercraft list](#) with a description of crafts, including sizes, types, numbers and boat crew for approval.

[3.2.1 Hazards to Navigation

Maintain complete control of the movement of floating equipment and material. Loose floating equipment and material are not permitted. Keep in readiness at all times a powered craft capable of moving, securing and disposing of floating equipment which may get loose and become a hazard to navigation.

] [3.2.2 Submarine Cables or Underwater Utilities

NOTE: Include this paragraph whenever dredging and submarine cables or underwater utilities involved.

Physically locate submarine cables or underwater utilities as indicated prior to performance of work.

] [3.2.3 RIMPAC Operational Exercises

NOTE: The following three paragraphs are tailored for NAVFAC Hawaii projects. Include these paragraphs when Pearl Harbor waterways are involved.

Due to the RIMPAC exercises conducted every even numbered years, the Contractor must anticipate delays and disruption in construction

activities for a period of 60 consecutive calendar days during the Contract. Disruption may range from complete shutdown of construction activity for a prolonged period of time or periodic short term shutdown of less than a full day, but in no event will such shutdowns in the aggregate exceed 60 calendar days per calendar year. This affected period is anticipated between 1 April and 31 July of every even numbered year. Bidders must take into consideration such delays when preparing their bids.

][3.2.4 December 7, 1941 Commemorative Ceremonies

To minimize disturbances during Pearl Harbor's December 7, 1941 Commemorative Ceremonies, no construction activities will be permitted on the day that ceremonies are held.

][3.2.5 Annual Pearl Harbor "Hydrofest"

The annual Pearl Harbor "Hydrofest" activities will prevent access to the waterways for a 2-week period during October or November. Bidders must take into consideration such delays when preparing their bid.

]][3.3 MODEL UNIT

NOTE: Include the following Article and the applicable paragraphs on projects with repetitious unit construction. Require the Contractor to complete a model unit to various levels, and have the materials and workmanship approved prior to proceeding with the remainder of the project. Examples of such projects are BEQ's, BOQ's, and family housing units, both renovations and new construction.

Prior to placement of material orders for components of the [BEQ living suites] [BOQ living suites] [family housing units] [_____] and the installation of those components throughout the project, the Contractor must complete the construction of the components of the model unit, and gain the approval of the Contracting Officer for the materials and workmanship therein.

NOTE: Edit the following paragraph to describe the extents of the model unit(s), and delineate whether each is a housing unit building, or a multiple resident living unit within a multi-unit building.

NOTE: Choose housing unit and the last bracketed option in the paragraph for family housing projects.

3.3.1 Model Unit Description

Provide a model unit made up of enough [living suites consisting of two bedrooms and an interconnecting bathroom] [single family housing units] [_____] to show all of the different levels of completion required below.[The model unit must have enough [suites] [housing units] to show

all level of completion simultaneously[, except for foundation and floor slab levels which are approved by the Contracting Officer and covered by following levels].] The model unit must be [living suites] [family housing units] [_____] constructed at the location agreed upon with the Contracting Officer and [a part of the permanent structure as indicated] [a temporary structure constructed to full scale at the location indicated, and demolished at the completion of the Contract].

3.3.2 Model Unit Requirements

Adhere to the following requirements for model construction:

- a. Provide materials in model unit identical to those actually approved in submittals. The QC Manager and Organization must approve and process submittals in accordance with Section 01 33 00 SUBMITTAL PROCEDURES. Do not procure, fabricate, or install materials prior to approval by the Contracting Officer.
- b. The Contracting Officer retains the right to disapprove and reject materials or items which are not in compliance with the project drawings and specifications.
- c. After approval of initial product submittals, provide full size samples of these components in the required color, and in sufficient quantity to completely outfit the model unit. Provide full size samples as dictated by the construction schedule for installation of those components in the model unit. Do not order or approve production of materials beyond those required for the model unit, until the full size samples have been installed in the model unit and approved by the Contracting Officer.
- d. Proceed immediately with construction of the model unit after the Contracting Officer acknowledges the required product submittals are approved.
- e. Provide temporary utilities and climate control necessary to construct, inspect, approve, and maintain the model unit.
- f. Provide and maintain the following throughout the construction period of the entire project: Temporary parking at the model unit; signage from the temporary parking to the model unit; the visual approach to the unit including trash removal, lawn [and landscaping] maintenance.
- g. Locate the model unit in an easily accessible location for public tours. The Government retains the right to use the model unit for supervised tours and public relations activities following each level of completion. Tours will take place during normal working hours.
- [h. Prior to completion and approval of the model unit, and with written permission to start from the Contracting Officer, the Contractor may perform general sitework and run major utility lines for the rest of the project.

]

NOTE: Include the following subparagraph when construction time is limited. Confirm with Contracting Officer and Activity User that they can consistently inspect and approve the model unit's different levels of completion before adding this

option.

- [i. As each model unit's level of completion is approved by the Contracting Officer, construction of that level's components throughout the remainder of the project may proceed.

]3.3.3 Model Unit Levels of Completion

NOTE: Choose one of the three model unit completion paragraphs below and confirm the selection with the Using Activity and Contracting Officer. The first bracketed option requiring the model unit to be complete before starting the construction of the facilities should only be used when delivery time of the facility is not critical. This option will delay the construction of the facility(s) until the model unit is constructed and approved. The second bracketed option using two levels of completion is most effective on BEQ construction but can be used on housing. The third bracketed option using multiple levels of completion should be used when time is a critical issue, especially on housing. This option sets incremental approval of multiple levels allowing Contractor to proceed quickly into the construction of the facility(s). In the third option verify with the Contracting Officer the number of approval stages needed. In this option, levels may be combined if confirmed with Contracting Officer.

- [The completed model unit must be exhibited for approval. Upon completion, the model unit must be available to the Government for a period of 15 working days for inspection after notification is received by Contracting Officer.

][Exhibit and secure approval of model unit at the following levels of completion:

- a. Level 1 (Pre-Finished Level) - Model unit construction within a completed building exterior must exhibit plumbing, ductwork, electrical locations, exposed framing, and windows. Leave walls and floors unfinished but ready for application of final finish. Upon completion of this level, model unit must be available to the Government for a period of five working days for inspection.
- b. Level 2 (Finished Level) - Model unit construction must exhibit all materials, completely finished as specified, including fixtures, wall and floor finishes, cabinets, and shelving. Upon completion, the model unit must be available to the Government for a period of 15 working days for inspection.

][Model unit must be exhibited and approved at the following [7] [_____] levels of completion:

- c. Level 1, model must be available for Government inspection for 28 calendar days.

- d. Levels 2 through 7, model unit must be available for Government inspection for 10 calendar days per level.
- a. Level 1 (Foundation & Floor Slab Level) - Clearly demonstrate treatment of earth excavation, testing of underslab mechanical piping, earth compaction, assembly and support of concrete reinforcing, technique of concrete movement and placement, framing of foundation steps, placement of insulation, final exposed concrete finished surface treatment, location outlines of all walls, all slab penetrations, and structural support points.
- b. Level 2 (Framing Level) - Clearly exhibit all load bearing and non-load bearing framing, sheathing, anchorage for exterior shell materials, and pre-trim frame-out.
- c. Level 3 (Exterior Shell Level) - Exhibit all exterior finishes, windows and doors with temporary hardware, caulking, sealant, sheathing paper, wall ties, locations of mechanical equipment, roofing, louvers, vents and trim.
- d. Level 4 (Plumbing, Mechanical and Electrical rough-in Level) - Exhibit electrical conduit and box location for switches, outlets fixtures, cable and data collection, ductwork, built-in plumbing fixtures, plumbing piping, and water pressure test of all plumbing pipe.
- e. Level 5 (Interior Finishes-rough Level) - Exhibit non-veneer plaster, unspackled and uncaulked wall and ceiling finishes, insulation, interior doors, final locations of all outlets and fixtures.
- f. Level 6 (Interior Finishes & Fixtures-final Level) - Exhibit final interior finishes, veneer plaster, painting, caulking, built-in shelving, cabinetwork, cabinet supported sinks, final door hardware, mechanical louvers, final electrical equipment connections, electrical fixtures, freestanding bathroom fixtures, properly functioning appliances, and operation of mechanical and electrical systems.
- [g. Level 7 (Site Finishes Level) - Exhibit final driveway, walks, exterior stairs, final concrete and asphalt finished surface treatment, topsoil quality and application, sodding/seeding of lawn, tree and shrub planting, landscaping beds, playground fall areas and playground equipment. Contracting Officer retains the right to inspect all preparation and installation of pavings. Provide adequate notice to the Contracting Officer prior to commencing paving work.

]]] -- End of Section --