# PERFORMANCE WORK STATEMENT

**FOR**

**REMOVAL & INSTALLATION**

**OF**

**FLOOR COVERINGS**

**BASEWIDE**

**BOLLING AFB**

**JULY 2008**

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PERFORMANCE WORK STATEMENT

BASEWIDE FLOOR COVERINGS

1. DESCRIPTION OF SERVICES/GENERAL INFORMATION:
   1. **SCOPE OF WORK:** The work to be performed under this contract and in accordance with these contract documents shall consist of furnishing all necessary plant, labor and materials; The contractor shall provide all labor, equipment, tools, materials, transportation, supervision, and services necessary to remove existing floor coverings such as: carpet, padding, wood, rubber, vinyl, quarry and ceramic tile and cove base and install new carpet, padding, wood, rubber, vinyl, quarry and ceramic tile floor coverings and cove base to include but not limited to all base facilities on Bolling Air Force Base, Washington, DC. Carpet specifications and installation shall conform to Air Force Carpet Standard Engineering Technical Letter (ELT) 07-4, (Appendix A).
   2. **BASIC SERVICES:** Generally the work will consist of removal of existing floor coverings such as: wood, carpet/ tile, etc, , furnishing and installing new carpet, tile, wall base, and accessories specified in this Performance Work Statement. Additionally, the contractor will be required to perform asbestos abatement as additional support, if necessary. Types of floor coverings and accessories include carpet (broadloom or tile), vinyl composition tile (VCT), ceramic/quarry tile, sheet vinyl, parquet, laminates, rubber tile, transition strips, binder bars, stair treads/nosing, thresholds, cove base, etc. All floor coverings shall be installed accordingly to the manufacturer’s specifications and industrial & commercial standards. The contractor when directed will be responsible to remove and reinstall any and all appliances and plumbing fixtures, such as toilets and their seals, etc. The work shall be executed in the best and most professional manner by qualified, careful, and efficient personnel skilled in the trade. The work shall be in strict accordance with the contract documents and standards of the industry.

* 1. **HIGH VISIBILITY AREAS:** Work performed under this contract is in a designated high visibility area.

1.4 CARPET

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NOTE: This guide specification covers the requirements for and the installation of carpet and carpet cushions. Consider carpet tile in open office areas when budget permits. See Section 09685.

Comments and suggestion on this specification are welcome and should be directed to the technical proponent of the specification. A listing of the [technical proponents](http://65.204.17.188/report/ufgs.html), 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)](http://65.204.17.188/projnet/cms/public.html).

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.

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\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*NOTE: On the drawings, show:

Location of carpet.

Pattern and color.

Special features: Ducts, trench headers, etc.

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NOTE: Carpet containing recovered materials is designated in 40 CFR 247.12, Comprehensive Procurement Guideline for Products Containing Recovered materials, as affirmative procurement item. Specifiers shall give preference to products containing recovered material when price, performance, and availability meet project performance requirements. Use of the following offers the opportunity to meet this requirement:

Polyester carpet fiber face, polyethylene terephthalate (PET) resin,

Nylon carpets with backing containing recovered materials,

Carpet cushion containing recovered materials.

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**1.4.1** Physical Requirements

1. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
   * + - 1. NOTE: For each different type of carpet specified:
         2. Use Table I at end of text to determine carpet wear classification.
         3. Use Table II at end of text to determine minimum requirement for carpet construction necessary to meet the wear classification defined from Table I for the pile yarn type and pile fiber chosen. Insert surface texture, pile yarn type, pile fiber, finished pile yarn weight, pile density, width, gage, dye method, and attached cushion requirement as necessary for each carpet type. Pattern and color for each carpet shall be indicated in the drawings in the finish/color schedule. Designate each carpet with a letter or number symbol to key locations indicated in the finish/color schedule.
         4. Specify carpet width and attached cushion requirement, if applicable. State carpet width as minimum permissible, bearing in mind that wider carpet minimizes number of seams. “Standard” width for most commercial carpet is 12 feet.
         5. Some cushion-backed carpet is available in width of 6 feet.
         6. Edit entire Part 2 to delete items that do not apply.
2. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

1.4.1.1 Provide carpet from manufacturer’s standard stock. Carpet shall be first quality and free of visual blemishes, streaks, poorly dyed areas, and other physical and manufacturing defects. Use nontoxic carpet materials and treatments, reasonably nonallergenic, and free of other recognized health hazards. Conform to the following:

**1.4.2** Carpet Types

MOHAWK: Regatta, Statituft III – MT Or MC, Marche – MC020, or approved equal

Surface Texture: Tufted

Pile Yarn Type: Woven Interlock

Pile Fiber: DuPont Antron Legacy Nylon with Static Control.

Finished Pile Yarn Weight: Minimum 28 oz/sqyd. This does not include weight of backings.

Pile density: 8,270 oz/cuyd. Minimum.

Width: 12 foot minimum usable carpet.

Gauge: 1/8 per inch minimum.

Dye Method: Solution Dyed.

Backing materials: Unitary Backing

MOHAWK: Endeavor, Visual Art, Coordination- (Ultra Set), Collegiate, Siena, or approved equal

Surface Texture: Tufted

Pile Yarn Type: Tufted Loop Pile Graphics

Pile Fiber: Color strand SD Nylon w/Static Control.

Finished Pile Yarn Weight: Minimum 28 oz/sqyd. This does not include weight of backings.

Pile density: 8,400 oz/cuyd. Minimum.

Width: 12 foot minimum usable carpet.

Gauge: 1/10 per inch minimum.

Dye Method: Solution Dyed.

Backing materials: Unitary Lock back.

COLLINS & AIKMAN: Xcelerate**,** or approved equal

Surface Texture: Tufted

Pile Yarn Type: Interlocking level loop

Pile Fiber: 80% BCF Strudon IV olefin /20% yarn dyed nylon

Finished Pile Yarn Weight: Minimum 28 oz/sqyd.

Pile density: 7,000 oz/cuyd.

Width: 6 foot minimum usable carpet.

Gauge: 1/10 per inch

Dye Method: Solution dyed/ yarn dyed

Backing materials: Tuft backing

Unitary Backing: required for each type of carpet.

1. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
   * + - 1. NOTE: Specify aluminum, vinyl, or rubber molding as required. If Contractor’s option of either aluminum, vinyl, or rubber is acceptable, modify to permit all three and specify color for all three types.
2. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

## **1.4.3** Adhesives

1.4.3.1 Adhesives utilized for this contract for all of the floor coverings shall be the appropriate recommended and/or required product specified by the flooring manufacturer.

1.4.3.2 Adhesive for Broadloom shall be multi-purpose and fast tacking as furnished and/or recommended by the carpet manufacturer. All adhesive shall be waterproof, non-flammable, solvent free and contain no alcohol or other hazardous materials. Low emitting volatile organic compound (VOC) adhesives should be used to provide for improved indoor air quality.

1.4.3.3 Material Data Safety Sheet (MSDS) shall be available at all worksites.

## **1.4.4** Carpet Installation

1.4.4.1 Install in accordance with the carpet manufacturer’s instructions using same carpet manufacturer’s primer coatings and adhesives.

### 1.4.4.2 Carpet Seams: Make uniform, unnoticeable, and permanent seams. Treat all joining edges, regardless of seaming method, with a seam adhesive unless manufacturer specifies otherwise. Seams must have a minimum seaming strength of 100 pounds per inch and must be capable of withstanding all carpet cleaning processes.

### 1.4.5 Moldings

### 1.4.5.1 Finish carpet edges meeting hard surface flooring with moldings. Install according to manufacturer’s instructions.

### 1.4.6 Cleaning

1.4.6.1 After installation, remove all debris, moldings, scraps, and other foreign matter. Remove any soiled spots or adhesive from the face of the carpet with the appropriate spot remover recommended by the carpet manufacturer. Clip any protruding face yarn with sharp scissors. Vacuum the carpet until it is clean.

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NOTE: Tables I and II shall be used to determine which type of carpet is appropriate for the facility being outfitted. Table I shall first be used to determine the carpet wear classification for the facility being outfitted. Then once this has been determined, Table II shall be used to determine the carpet construction necessary to meet the wear classification defined from Table I for the pile yarn type and pile fiber chosen.

NOTE: For Table I: Classifications are based on potential number of users, type of traffic, required appearance levels, and anticipated frequency of use. Multiple classifications are assigned where significant differences among similar facilities/areas are likely. The lowest classification shown determines minimum quality permissible for a given facility/area. Use higher classifications than minimum where indicated by potential usage conditions. Classification for stair carpet for all facilities is “SEVERE.”

USACE / NAVFAC / AFCESA UFGS-09310 (August 2002)

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Preparing Activity: USACE Superseding

UFGS-09310A (November 2001)

UFGS-09310N (September 1999)

UNIFIED FACILITIES GUIDE SPECIFICATIONS

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1.5 RESILIENT FLOORING

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NOTE: This guide specification covers the requirements for resilient floor coverings subject to from light to heavy traffic,and base materials.

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](http://65.204.17.188/report/ufgs.html), 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)](http://65.204.17.188/projnet/cms/public.html).

Use of electronic communication is encouraged.

This guide specification includes tailoring options for vinyl composition tile, sheet vinyl flooring, solid vinyl tile, rubber flooring, stair, treads, risers, and stringers, resilient base, integral cove base, and feature/transition strip. Selection or deselection of a tailoring option will include or exclude that option in the section, but editing the resulting section to fit the project is still required.

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

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1. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
   * + - 1. NOTE: Resilient flooring may be used over wood subfloor provided that the subfloor underside is well ventilated and the installation conforms to the manufacturer’s recommendations. Flooring such as fire-retardant tile, nonslip tile and cork tile are not included in this specification; appropriate wording must be added when those tiles are required.
         2. Light to moderate traffic is generally encountered in family housing, barracks, and administrative facilities. Flooring for commercial or institutional uses and high standards of sanitation are subject to heavy traffic. Sheet vinyl flooring should not be used in areas subject to uncontrolled disposal of cigarettes or matches.
         3. Classifications/grades/types of the tile must be indicated in their proper areas on the drawings if more than one variation is specified. When manufacturer’s names, colors, and patterns are shown, add the following note: “Colors listed are for color identification purpose only; the listing is not intended to limit selection of similar colors from other manufacturers.” Manufacturer’s published data will be checked to ensure that colors, patterns, and sizes selected are available in the thickness selected. Solid color tile are tile with uniform color throughout. Through pattern tiles are tiles with patterning distributed through the entire thickness.
         4. On the drawings, show:
     1. Location of sheet vinyl, including style designations.
     2. Colors.
     3. Location of stair treads, edge strips and other special accessories or conditions.
2. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
3. 1.5.2 Submittals: \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
   * + - 1. NOTE: Issue (date) of references included in project specifications need not be more current than provided by the latest guide specification.
4. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

## Fire Resistance Requirements

1. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
   * + - 1. NOTE: Choice of critical radiant flux level as it applies to building type and area of application will be made in accordance with the latest edition of MIL-HDBK 1008B or NFPA 101. Wherever the use of Class II (0.22) watts finish is required, Class I (0.45) watts will be permitted. Critical radiant flux will be a minimum average of 0.45 watts when used in corridors in bachelor enlisted quarters, bachelor officer quarters, hospital, child care centers, temporary lodging facilities, and new construction detention and correctional facilities. Generally the critical radiant flux will be a minimum of 0.22 for corridors of other type facilities. Where an approved automatic sprinkler system is installed, Class II interior floor finish may be used where Class I floor finish is required, and where Class II is required, no critical radiant flux rating is required. Omit paragraph if not applicable.
2. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

1.5.1.1 Flooring in corridors and exits shall have a minimum average critical radiant flux of 0.22 watts per square centimeter when tested. The smoke density rating shall be less than 450 when tested.

1.5.1.2 Areas to receive resilient flooring shall be maintained at a temperature above 70 degrees F and below 100 degrees F for 2 days before application, during application and 2 days after application. A minimum temperature of 55 degrees F shall be maintained thereafter. Provide adequate ventilation to remove moisture from area and to comply with regulations limiting concentrations of hazardous vapors.

## Tile Flooring

### 1.5.2.1 Vinyl/ Marmoleum/Linoleum Composition Style

1. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
   * + - 1. NOTE: The 3.2 mm (1/8 inch) thick vinyl composition tile (VCT) should be utilized in high traffic commercial type installations. The 2.4 mm (3/32-inch) thick VCT should be considered for light to medium duty areas such as rooms in BEQ’s and BOQ’s. But the criteria for selection of any flooring should also consider amount of vehicular traffic (carts, wheelchairs, etc.), abrasiveness of outside soil and exposure to damaging agents.
2. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
   * + 1. Vinyl or linoleum composition tile shall be equal to Armstrong STANDARD EXCELON, and shall be 12 inches square and 1/8 inch thick. Tile shall have the color and pattern uniformly distributed throughout the tile. Flooring in any one continuous area shall be from the same lot and shall have the same shade and pattern.

### Stair Treads, Risers, and Stringers

* + - * 1. Treads, risers, and stringers shall conform to composition rubber compounded from a mixture of synthetic and reclaimed rubber. Overall thickness at treads shall be not less than 1/8 inch. Durometer hardness shall be 90, plus or minus 5, when tested. Treads to have 80 percent of back and nose sanded by manufacturer to assure good adhesion; provide manufacturer’s epoxy filler to completely fill gap between stairs and tread nose for all tread. Designs shall be either a one piece nosing/tread/riser or a two piece nosing/tread with a matching coved riser. Installation shall include stringer angles on both the wall and banister sides, and landing trim.

### 1.5.3 Lining Felt

1.5.3.1 Asphalt felt shall be as recommended by flooring manufacturer.

### 1.5.4 Adhesive for Vinyl Composition Tile

* + - 1. Cutback adhesive for installation of tile over concrete above, on or above grade. Moisture and alkali resistant. Non-asbestos formulated or a latex adhesive recommended by flooring manufacturer.

### 1.5.5 Adhesive for Wall Base

1.5.5.1 Adhesive for wall base shall be emulsified acrylic latex; non- flammable.

1.5.6 Strips

* + - 1. Edge: Provide carpet reducer or tile reducer of vinyl. Limit vertical lips in edge strips to ¼ inch; limit total rise to ½ inch.
      2. Feature: Feature strips shall be rubber, 1 inch wide, and of thickness to match the flooring. Color shall be selected by the Government**.**
      3. Transition: A vinyl or rubber transition strip tapered to meet abutting material shall be provided.

## 1.5.7 Wall Base

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NOTE: When color is indicated on the drawings delete reference to color in specification; when color samples are required in the project submittals, choose the option “approved color.” If a decorative effect or an unnamed color is to be specified, insert description in blank space.

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* + - 1. Base shall be equal to rubber in continuous rolls coved style. Base shall be 4 or 6 inches high and a minimum 1/8 inch thick. Color shall be selected by Government from manufacturer’s standards. Preformed outside corners shall be furnished. Use flexible base to conform to irregularities in walls, partitions, and floors. Provide premolded corners in matching size, shape, and color for all right-angle inside and outside corners.

## 1.5.8 Polish/Finish

1.5.8.1 Use flooring manufacturer’s standard high-solids finish for shine without buffing; non-flammable; compatible with factory-applied finish; may be buffed or burnished for maximum gloss.

## Caulking and Sealants

* + - 1. Caulking and sealants shall be in accordance with manufacturer’s specifications in regards to joint sealing.

## Manufacturer’s Color and Texture

1. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
   * + - 1. NOTE: Show manufacturer’s name and color numbers on the drawings. Production runs of rubber tile are made in smaller quantities than other resilient tiles, so some variation in shade is to be expected.
2. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
   * + 1. Color and distinct pattern shall be uniformly distributed throughout the tile. Flooring in continuous area or replacement of damaged flooring in continuous area shall be from same production run with same shade and pattern.
3. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
   * + - 1. NOTE: The surfaces of lightweight concrete slabs tend to be too weak cohesively to support the bond of the adhesives for resilient flooring; therefore, for lightweight concrete floors of less than 1440 kg per cubic meter (90 pcf) density, a 25 mm (1 inch) topping of standard 2400 kg per cubic meter (150 pcf) concrete will be used.
4. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

## Examination/Verification of Conditions

1.5.11.1 The Contractor shall examine and verify site conditions and shall report all conditions that will prevent proper installation. The Contractor shall not take any corrective action without written permission from the Contracting Officer.

### Remove existing flooring and adhesive in accordance with manufacturer’s instructions and in accordance with industrial standards.

## General Application Requirements

## 

## Surface preparation: flooring shall be in a smooth, true, level plane, except where indicated as sloped. Before any work under this section begins, all defects such as rough or scaling concrete, low spots, high spots, and uneven surfaces shall be corrected, and all damaged portions of concrete slabs shall be repaired as recommended by the flooring manufacturer.

* + - 1. To avoid damage, apply flooring and accessories in accordance with manufacturer’s directions.
      2. Adhesives: Do not allow smoking, open flames or other sources of ignition in area where solvent-containing adhesives are being used or applied, after posting conspicuous signs reading “NO SMOKING OR OPEN FLAME.”
      3. Flooring: Install according to manufactures instructions and specifications. Apply in patterns indicated. Keep tile lines and joints square, symmetrical, tight, and even. Keep each floor in true, level plane, except where slope is indicated. Vary width of edge tiles as necessary to maintain full-size tiles in field, but no edge tile shall be less than one-half full size, except where irregular-shape makes it impossible.
      4. Cutting: Cut flooring edges and scribe to walls and partitions after field flooring has been applied.
      5. Edge Strips: Provide edging strips where flooring terminates at points higher than contiguous finished flooring, except where thresholds are provided. Secure plastic strips with adhesive.

## **LiNOLEUM/MARMOLEUM/VINYL-Sheet Flooring**

1. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
   * + - 1. NOTE: If tile is to be installed over existing resilient flooring, specify self-adhering tiles and refer to manufacturer’s directions for surface preparation and installation.
2. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
   * 1. Sheet flooring shall be installed with adhesive in accordance with the manufacturer’s installation instructions. Sheet lines and joints shall be kept square, symmetrical, tight, and even, and continue into separate areas/rooms. All seems shall be heat welded. Edge width shall vary as necessary to maintain full-size sheets in the field. Flooring shall be cut to, and fitted around, all permanent fixtures, built-in furniture and cabinets, pipes, and outlets. Edge Sheets shall be cut, fitted, and scribed to walls and partitions after field flooring has been applied.
   1. N/A
3. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
   * + - 1. NOTE: Specify locations where waterproof seams are desired; specify waterproof seams in areas subject to abnormal surface moisture.
4. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

## Feature Strips

* + - 1. Edge strips shall be secured with adhesive as recommended by the manufacturer. Edge strips shall be provided at locations where flooring termination is higher than the adjacent finished flooring, except at doorways where thresholds are provided. Edge strips shall be installed under door centerline.

## Wall Base

1. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
   * + - 1. NOTE: When wall base is to be applied to wallboard, specify in the gypsum wallboard section that wallboard is to extend to and be finished square with floor.
2. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

1.6.3.1 Wall base shall be installed with adhesive in accordance with the manufacturer’s written instructions. Base joints shall be tight and base shall be even with adjacent resilient flooring. Voids along the top edge of base at masonry walls shall be filled with caulk. Where wall base is used in conjunction with vinyl wall covering cut vinyl wall covering off ¼ inch below top of base.

1.6.4 Treads and Risers

1.6.4.1 Stair treads and risers shall be installed with adhesive in accordance with the manufacturer’s written installation instructions. Treads and risers shall cover the full width of the stairs. Stairs wider than manufacturer’s standard lengths shall have equal length pieces butted together to cover the treads.

## Cleaning

1. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
   * + - 1. NOTE: Some activities prefer no-wax maintenance; others prefer waxing. Pre-waxed flooring and flooring that does not require wax need not be waxed after installation if properly protected. Modify paragraph accordingly.
2. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
   * + 1. Immediately upon completion of installation of sheet flooring in a room or an area, flooring and adjacent surfaces shall be dry-cleaned to remove all surplus adhesive. No sooner than 5 days after installation, flooring shall be washed with a nonalkaline cleaning solution, rinsed thoroughly with clear cold water, and, except for raised pattern rubber flooring, rubber tile and sheet rubber flooring, rubber stair treads, and static control sheet vinyl, given two coats of polish in accordance with manufacturer’s written instructions. Raised pattern rubber flooring, rubber tile and sheet rubber flooring, rubber stair treads, and static control vinyl tile shall be cleaned and maintained as recommended by the manufacturer.

1.6.5.2 Linoleum/Marmoleum/Vinyl flooring, except pre-waxed flooring and flooring designated as no-wax or never-wax by manufacturer, shall be buffed to an even sheen without polish with an electric polishing machine, using a lamb’s wool pad when dry buffing.

1.6.5.3 Translucent or transparent-surfaced sheet vinyl flooring shall be cleaned by damp mopping. Do not buff finish. Follow flooring manufacturer’s cleaning and maintenance instructions.

**1.7 CERAMIC TILE, QUARRY TILE, AND PAVER TILE**

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NOTE: This guide specification covers the requirements for ceramic tile for walls and floors, porcelain tile, quarry tile, paver tile, and marble thresholds. Tile grouted with epoxy or furan resin is included, but quarry tile subject to severe chemical exposures is specified in Section 09330 CHEMICAL-RESISTANT QUARRY TILE.

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](http://65.204.17.188/report/ufgs.html), 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)](http://65.204.17.188/projnet/cms/public.html).

Use of electronic communication is encouraged.

This guide specification includes tailoring options for floor tile, mosaic tile, quarry tile, detectable warning tile, porcelain tile glazed wall tile, and marble thresholds. Selection or deselection of a tailoring option will include or exclude that option in the section, but editing the resulting section to fit the project is still required.

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1. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
   * + - 1. NOTE: For Army facilities, buildings not excluded by TI 800-01 Design Criteria will be accessible in accordance with 36 CFR, Part 1191, Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities.
         2. Drawings will indicate location, dimensions, elevations, schedules, content, details and such other information as required to indicate the extent of the work.
         3. Product selections shall be based on esthetic values, function, type of facility, and cost as related to project needs.
2. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
   * 1. Ceramic tile work shall not be performed unless the substrate and ambient temperature is at least 50 degrees F and rising. Temperature shall be maintained above 50 degrees F while the work is being performed and for at least 7 days after completion of the work. When temporary heaters are used they shall be vented to the outside to avoid carbon dioxide damage to new tile work.

# Products

* + - 1. Marazzi Tile ORIZZONTI
      2. American Olean INTEGRA

1. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
   * + - 1. NOTE: Color and pattern must be indicated. When manufacturer’s names, colors, and patterns are shown, add the following sentence: Colors listed are for color identification purpose only; the listing is not intended to limit selection of similar colors from other manufacturers.
         2. The surface datum will be established for the top of the tile floors to indicate to other trades the required elevation for the top of subfloor.
2. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

## Tile

1. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
   * + - 1. NOTE: Unglazed ceramic tile with low absorption rates are easier to maintain because they are more resistant to staining. They do not readily absorb grease, food or beverage spills, or other staining agents.
         2. A minimum coefficient of friction of 0.50 (wet and dry) is the recognized industry standard for a slip-resistant flooring surface. The Americans with Disabilities Act (ADA) recommends a minimum coefficient of friction of 0.60 (wet and dry) for accessible routes and 0.80 (wet and dry) for ramps.
         3. The basic durability classifications for floors are as follows:
         4. Class 0 - Generally not recommended for use on floors.
         5. Class I - Light Traffic, residential bathroom floors.
         6. Class II - Medium-Light Traffic, residential interiors except kitchens, stairs, landings, and areas near exterior entries.
         7. Class III - Medium-Heavy Traffic, all residential applications and similar commercial applications except areas of prevalent circulation or turning points.
         8. Class IV - Heavy Traffic, all residential and most commercial applications such as public areas of exhibition halls, shops, and schools.
         9. Class IV Plus - Extra Heavy Traffic; walkways, food service, etc., or where extra wear is required.
2. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
   * + 1. Tile shall be standard grade. Containers shall be grade sealed. Seals shall be marked to correspond with the marks on the signed master grade certificate. Tile shall be impact resistant with a minimum breaking strength of 250 lbs for floor tile. Floor tile shall have a minimum coefficient of friction of 0.60 wet and dry. Floor tile shall be Class II Through Pattern. Traffic, durability classification as rated by the manufacturer when tested for abrasion resistance as related to foot traffic.

### Quarry Tile

1. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
   * + - 1. NOTE: Abrasive surface quarry tile will be specified for vestibules, kitchens, walk-in refrigerators, and work spaces behind serving lanes. Abrasive surface quarry tile should be considered for other areas which may become slippery due to grease or soapy water spillage or for other reasons. Red quarry tile is the most economical color. If other colors are desired, they should be limited to the darker shades.
2. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
   * + 1. Quarry tile and trim shall be unglazed with smooth surface. Tile shall be 6 x 6 x ½ inch or sometimes thicker.

## Setting-Bed

* + - * 1. The setting-bed shall be composed of the following:
        2. Aggregate for Concrete Fill: Aggregate shall conform to Commercial Standards, (CS). Maximum size of coarse aggregate shall not be greater than one-half the thickness of concrete fill.
        3. Portland Cement: Cement shall conform to **CS**.
        4. Sand: Sand shall conform to **CS**.
        5. Hydrated Lime: Hydrated lime shall conform to **CS.**

1.7.4.3 Mortar, Grout, and Adhesive: Mortar, grout, and adhesive shall conform to the following:

1.7.4.3.1 Dry-Set Portland Cement Mortar

1.7.4.3.2 Conductive Dry-Set Mortar

1.7.4.3.3 Latex-Portland Cement Mortar

Ceramic Tile Grout shall conform to the following:

1.7.4.3.4 [Sand Portland cement grout] [dry-set grout]

[latex-Portland cement grout] [commercial Portland cement grout] [silicone rubber grout].

### 1.7.4.4 Organic Adhesive shall adhere to CS.

1.7.4.4.1 Epoxy Resin Grout shall adhere to CS.

### 1.7.4.5 Furan Resin Grout shall adhere to CS.

1.7.4.5.1 Shall consist of an intimate mixture of furfuryl- alcohol resin with carbon filler and catalyst.

## 1.7.5 Marble Thresholds

1. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
   * + - 1. NOTE: Where the top of tile floors will occur at a different elevation from the top of finished floors in adjoining spaces, provision for marble thresholds or saddles will be edited appropriately.
2. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
   * + 1. Marble thresholds shall be of size required by drawings or conditions. Marble shall have a fine sand-rubbed finish and shall be appropriate for color of tile chosen by government from manufacturing standards.

1.7.5.2 Preparatory Work and Workmanship

1. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
   * + - 1. NOTE: When using the dry-set method to install tile on concrete or masonry surfaces, Section 03300 CAST-IN-PLACE STRUCTURAL CONCRETE and Section 04200 MASONRY, as applicable, will be coordinated to require (1) steel trowel and fine broom-finished concrete floors free of curing compounds and waxes, (2) masonry surfaces that are level and plumb with struck joints and square openings.
2. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

1.7.5.2.1 Surface to receive tile shall be inspected and shall conform to CS for surface conditions for the type setting bed specified and for workmanship.

1.7.6 General Installation Requirements

1.7.6.1 Tile work shall not be started until all other work in an area is completed. Floor tile installation shall not be started in spaces requiring wall tile until after wall tile has been installed. Tile in colors and patterns indicated shall be applied in the area shown on drawings if provided. Tile shall be installed with the respective surfaces in true even planes to the elevations and grades shown. Special shapes shall be provided as required for sills, jambs, recesses, offsets, external corners, and other conditions to provide a complete and neatly finished installation. Tile bases and coves shall be solidly backed with mortar.

## Installation of Floor Tile

1. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
   * + - 1. NOTE: This paragraph covers two different methods of installing tile on floors. The mortar bed method F111, F112, F114, and F121 and direct to concrete with dry-set mortar method F113 and F115. See TCA Hdbk for detailed guidance.
         2. General guidance is as follows:
         3. The mortar bed method will be used for areas having a floor drain.
         4. Dry-set mortar direct to concrete is suitable for areas without a floor drain or when it is not practical to recess the slab.
         5. Where more than one method is used for the same project, care must be taken to ensure that the drawings clearly indicate the various substrates and where each method is used. Where only one method is used on a project, clearly specify that method only.
2. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

1.7.6.2.1 Floor tile shall be installed in accordance with TCA Hdbk, (Ceramic Tile Installation), method.

### 1.7.6.2.2 Workable or Cured Mortar Bed

1.7.6.2.3 Floor tile shall be installed over a workable mortar bed or a cured mortar bed at the option of the Contractor. Workable mortar bed materials and installation shall conform to CS. Joints between quarry tiles shall be between ¼ inch and 3/8 inch in width and shall be uniform in width.

### Dry-Set and Latex-Portland Cement

* + - * 1. Dry-set or Latex-Portland cement mortar shall be used to install tile directly over properly cured, plane, clean concrete slabs in accordance with CS. Latex Portland cement shall be used when installing porcelain ceramic tile.

### 1.7.6.4 Resinous Grout

1. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
   * + - 1. NOTE: Resin grout will be used where chemical resistance is required. For quarry tile subject to severe chemical exposure conditions, use Section 09330 CHEMICAL-RESISTANT QUARRY TILE.
         2. The areas to receive resin grout must be clearly indicated on the drawings or defined in the specifications. Due to the higher cost of this grout, its use will generally be limited to areas such as:
   1. Within the areas bounded by a line 600 mm (2 feet) outside of the trough areas for ranges, kettles, and ovens.
2. Within the areas of potwashing and dishwashing. In small kitchens where it may be impracticable to subdivide areas for grouting, resin grout method F114 or F133 may be used throughout.
   * + - 1. For severe chemical exposure such as meat packing plants and photo labs, resin grout method F134 will be used throughout and a resin setting-bed will be required. Wherever resin setting-bed is used, the concrete slab will be steel-troweled finished to the final slope of the finished floor. The tile shall be set in a 3 mm (1/8 inch) thick layer of epoxy-or furan-resin mortar. When using furan resins, the concrete slab will be neutralized or painted in accordance with the resin manufacturer’s directions.

1.7.6.4.1 When resinous grout is indicated, quarry tile shall be grouted with either furan or epoxy resin grout. Joints shall be raked and cleaned to the full depth of the tile and neutralized when recommended by the resin manufacturer. Epoxy resin grout shall be installed in conformance with CS. Furan resin grout shall be installed in accordance with manufacturer’s instructions. Tile installed with furan resin shall be coated with wax by the tile manufacturer. Installation of resin grout shall be in strict accordance with manufacturer’s instructions for proportioning, mixing, installing, and curing. Recommended temperature shall be maintained in the area and on the surface to be grouted. After grouting, tile shall be left free of grout stain.

### 1.7.6.5 Ceramic Tile Grout

1.7.6.5.1 Ceramic Tile grout shall be prepared and installed in accordance with CS.

## 1.7.6.6 Installation of Marble Thresholds

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

NOTE: Where the top of tile floors will occur at a different elevation from the top of finished floors in adjoining spaces, provision for marble thresholds or saddles will be edited appropriately.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

1.7.6.6.1 Thresholds shall be installed where indicated in a manner similar to that of the ceramic tile floor. Thresholds shall be the full width of the opening. Head joints at ends shall not exceed ¼ inch in width and shall be grouted full as specified for ceramic tile.

## 1.7.6.7 Expansion Joints

1. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
   * + - 1. Note: Expansion-joint details will be indicated on the drawings. Details as provided in TM 5-805-6 will be used as applicable. Location of expansion joints should, insofar as practical, be located outside the areas of tile finishes.
2. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

1.7.6.7.1 Joints shall be formed as appropriate and per manufacturer’s recommendation.

## 1.7.6.8 Cleaning and Protecting

1.7.6.8.1 Completed tile surfaces shall be thoroughly cleaned in accordance with manufacturer’s approved cleaning instructions. Acid shall not be used for cleaning glazed tile. Floor tile with resinous grout or with factory mixed grout shall be cleaned in accordance with instructions of the grout manufacturer. After the grout has set, tile wall surfaces shall be given a protective coat of a non-corrosive soap or other approved method of protection.

**1.8 WOOD FLOORING**

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

NOTE: This guide specification covers the requirements for ceramic tile for walls and floors, porcelain tile, quarry tile, paver tile, and marble thresholds. Tile grouted with epoxy or furan resin is included, but quarry tile subject to severe chemical exposures is specified in Section 09330 CHEMICAL-RESISTANT QUARRY TILE.

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](http://65.204.17.188/report/ufgs.html), 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)](http://65.204.17.188/projnet/cms/public.html).

Use of electronic communication is encouraged.

This guide specification includes tailoring options for floor tile, mosaic tile, quarry tile, detectable warning tile, porcelain tile glazed wall tile, and marble thresholds. Selection or deselection of a tailoring option will include or exclude that option in the section, but editing the resulting section to fit the project is still required.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

1. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
   * + - 1. NOTE: For Army facilities, buildings not excluded by TI 800-01 Design Criteria will be accessible in accordance with 36 CFR, Part 1191, Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities.
         2. Drawings will indicate location, dimensions, elevations, schedules, content, details and such other information as required to indicate the extent of the work.
         3. Product selections shall be based on esthetic values, function, type of facility, and cost as related to project needs.
2. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

# Products

* + - 1. Solid-wood flooring hardwood and softwood species.
      2. Engineered-wood flooring
      3. Strip flooring is 1-1/2 to 2-1/4 inches (38 to 57 mm) wide/ random lengths.
      4. Plank flooring is 3 to 8 inches (76 to 203 mm) wide /random lengths.
      5. *Parquet*: patterned floor.
         1. Parquet strips or planks regular-length boards
         2. Solid-wood parquet blocks
         3. Engineered-wood parquet tiles simulate solid-wood parquet blocks using face veneers of one or more wood species laminated to supporting plies.

## Finishes

1.8.2.1 Surface finishes over penetrating stains: Oil-modified and water-based polyurethanes Epoxy-ester finishes are very durable and are recommended for gym floors. Moisture-cured urethanes and acid- curing formaldehyde finishes are also very durable, water-based finishes are clear and non yellowing and leave the wood with the most natural appearance. Surface finishes are factory or site applied

* + - 1. Acrylic-impregnated finishes Acrylic-impregnated finishes are factory applied.

## 1.8.3 Preparatory Work and Workmanship

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

NOTE: When using the dry-set method to install tile on concrete or masonry surfaces, Section 03300 CAST-IN-PLACE STRUCTURAL CONCRETE and Section 04200 MASONRY, as applicable, will be coordinated to require (1) steel trowel and fine broom-finished concrete floors free of curing compounds and waxes, (2) masonry surfaces that are level and plumb with struck joints and square openings.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

1.8.3.1 Surface to receive wood flooring shall be inspected and shall conform to the requirements of CS for surface conditions for the type installation specified and for workmanship.

## 1.8.3.2 General Installation Requirements

1.8.3.3 Installation shall be accomplished accordingly to the manufactures instructions and to the floor covering CS.

**1.9**  **COORDINATION OF WORK OPERATIONS:** The work to be performed under this contract is on an active Air Force Base. The Contractor shall coordinate all work operations with the QAP.

1.9.1 Work Hours: Normal government working hours are Monday through Friday, 0700 to 1600. Work shall not be scheduled for any federal holiday. The Contractor shall be required to work during other than normal duty hours as directed by the CO or QAP to accomplish floor covering requirements. A majority of services to be provided will be accomplished outside of normal duty hours to include evenings and weekends. The specialized requirement areas include, but not limited to, child development centers, youth centers, chapels, and distinguish Officers areas that are not accessible during normal duty hours. The contractor may be required to establish specialized performance hours on a continuing basis depending on types and nature of facilities to be worked. The following is a list of Federal Holidays observed by this installation:

New Years Day Labor Day Inauguration Day

Martin Luther King Jr’s Birthday Columbus Day President’s Day

Veterans Day Memorial Day Thanksgiving Day

Independence Day Christmas

**1.10 PERSONNEL REQUIREMENTS:**

1.10.1 Appearance of Workers: All Contractor employees shall wear work shirts bearing a patch on the front left breast, with the company name or emblem and shall possess at all times an identification card indicating the individual’s name, company name, and bearing a picture of the individual. Workmen shall be neat, clean and presentable when working on base. The Contractor’s vehicles shall display emblems indicating the company name. Work clothes shall consist of shoes, shirt, and long pants, or long coveralls.

1.10.2 Key Personnel: The contractor shall maintain personnel to serve as the Government point of contact and responsible for all work performance under the contract. All work is to be performed by contractors who are CFI Certified Floor Covering Installers (International Certified Floor Covering Installers Association), or manufacturer approved installers. The Project Manager/Key Personnel on the job-site must be certified Commercial II (C-II) or higher and speak and understand English.

1.10.3 Key personnel shall be available during normal duty hours within 2 hours to meet on the installation with government personnel designated by the Contracting Officer to discuss work requirements or problem areas.

**1.11 OCCUPIED BUILDING:**

1.11.1 The Contractor will be working in buildings which are occupied and fully furnished. The buildings and areas may have to remain functional during installation operations. The Contractor shall confine work operations and personnel to the specified areas of installation unless otherwise authorized by the Contracting Officer or Quality Assurance Personnel (QAP).

* 1. **PROTECTION AND MOVING OF PROPERTY:**

1.12.1 The Contractor shall be responsible for protection of all existing Government features, furnishings and for moving the furnishings in the area of work, as necessary, to accomplish required work elements and replacing same in their original position. If there is a requirement to move modular furniture, the contractor will be responsible for lifting/jacking up all modular cubicles in place. Individual task orders will specify furniture moving requirements. Protection shall include covers, tarps, plastic sheets, and other protection devices. The contractor shall protect government property and furnishings that may be in, or adjacent to, the work area with appropriate clean drop cloths, barricades, dust-stops, or other provisions as determined by, or approved by, the QAP prior to starting work.

1.13 ENVIRONMENTAL REQUIREMENTS

1.13.1 Compliance with Environmental Laws: The contractor shall comply, and ensure that all subcontractors comply, with all applicable federal, state, and local laws, regulations, ordinances, policies and standards related to environmental matters. The contractor shall also comply, and ensure that all subcontractors comply, with all applicable specific instructions, policies, or references contained herein. Copies of local policies and procedures can be reviewed at the Base Environmental Coordinators office, Bldg 370, phone 202-767-8600.

1.13.2 Hazardous Materials: For the purposes of this document, Hazardous Materials (HM) is defined as any product, material, chemical or substance listed in 49 CFR 172.101 and 40 CFR 302-304. Specifically, a HM is any substance or material, in any quantity or form that has the potential to harm human health or the environment.

1.13.3 Absolutely no HM shall be brought onto Bolling AFB until that material is authorized for use, by the Environmental, Safety, and Occupational Health (ESOH) Team and properly recorded in the Air Force Environmental Management Information System. Point of contact to initiate this process is the Civil Engineering Environmental Flight (11 CES/CEV), bldg 370, phone (202) 767-8600. The requirements apply for all hazardous material that the user intends to bring onto government property for a particular process or application. The user shall submit, to the 11 CES/CEV, an AF Form 3952, Material Safety Data Sheets (MSDSs) and any other supporting documentation for each hazardous chemical used prior to introduction of that material to Bolling AFB.

1.13.4 Contractors shall also submit, to the Contracting Officer, a list of hazardous/potentially hazardous materials to be used in the performance of their contract prior to introducing the HM to the base. The list shall include the contract number, performance period, Material Safety Data Sheets, and a contractor point of contact (POC) for HM matters.

1.13.5 Should HM requirements change during the performance period, the contractor’s POC shall immediately notify the contracting officer of such changes, in writing.

1.13.6 HM shall only be stored at BAFB with approval from the Base Environmental Coordinator, Wing Safety, and Base Fire Department. The contractor shall observe HM storage practices in accordance with regulations, policies, plans, and procedures employed by the BEC, Bioenvironmental Engineer, Wing Safety Office, and Base Fire Department for hazardous materials stored on base.

1.13.7 Hazardous and Special Waste Generated by the Contractor: For the purposes of this document, hazardous and special wastes shall include those identified in 40 CFR 261.

1.13.8 All hazardous waste or special waste generated by the contractor during or as a result of this project shall be identified, characterized, containerized, and transported to a permitted disposal facility in strict accordance with the requirements of 40 CFR 260-279 (Hazardous Waste and Used Oil Regulations). Any anticipated hazardous or special waste generation shall be identified to the Contracting Officer/BEC prior to ANY generation of such waste. The BEC will assist the contractor in determining any special handling or storage procedures.

1.13.9 The contractor shall provide a completed Uniform Hazardous Waste Manifest to document all authorized parties and locations involved in the generation, transportation, storage, and disposal of all hazardous and special wastes. The contractor shall provide the Contracting Officer/BEC a draft copy of the manifest, for review, no less than 3 working days prior to any hazardous or special waste shipment from the installation. The BEC will sign as the generator for Bolling AFB. The contractor shall submit the completed original manifest to the Contracting Officer/BEC not later than 30 days after waste has been shipped from the base.

1.13.10 Unidentified Hazardous or Regulated Material/Waste Encountered by the Contractor: The contractor shall notify the Contracting Officer upon encountering any material, not identified in the contract documents, thought to be hazardous to workers, personnel in the area, or the environment. The government shall be responsible for characterization, storage, transportation and disposal of the waste, if necessary. The contractor shall immediately contact the BEC upon discovery of unidentified materials/waste who will assist the contractor in determining appropriate procedures to be used.

1.13.11 Asbestos Containing Building Materials: No asbestos containing materials shall be used in this contract. The contractor shall certify, in writing to the Contracting Officer, that no asbestos containing materials will be used in this contract.

**1.14 ASBESTOS**

1.14.1 Asbestos testing will be conducted by BCE.

1.14.2 The contractor shall handle asbestos-containing waste in strict accordance with federal guidelines found in the Code of Federal Regulations, Title 40 (40CFR) Part 61, Subpart M. Disposal must be in accordance with 30 TAC 330.196 (b) (6).

1.14.3 Any asbestos abatement shall conform to federal regulations regarding asbestos abatement activities, 29 CFR 1926.1101. Asbestos abatement shall adopt, by reference, rules regarding demolition and renovation activities covered less than 40 CFR, Part 61, Subpart M (NESHAP).

1.14.4 The contractor shall be responsible for providing information relating to the abatement project(s) such as: abatement contractor information, their business address, MDH license number, demolition contractor, project contractor, waste transporter information, waste disposal site information, the start date of actual asbestos abatement work and the scheduled completion date.

1.14.5 The MDH 10 day notification information shall be provided to the Contracting Officer/BEC a minimum of 15 working days in advance of the actual asbestos abatement.

1.14.6 Should the contractor encounter previously unidentified or suspected Asbestos Containing Material, (ACM), which must be disturbed to comply with the contract documents, the contractor shall cease all work that would disturb the suspect material and shall immediately notify the Contracting Officer. The government shall take steps, as appropriate, to ascertain the material’s composition and determine any remedial actions necessary.

**1.15 RECYCLED AND RECOVERED MATERIALS**

1.15.1 The affirmative procurement provisions of Section 6002 of Resource Conservation and Recovery Act and Executive Order 12873, Federal Acquisition, Recycling, and Waste Prevention, require the use of the recycled and recovered materials and products identifiedin the Environmental Protection Agency’s Comprehensive Procurement Guidelines in Government construction projects. Caveats to the use of these materials and products are they must meet the performance requirements of the specifications, not delay the progress of the installation project, or not be cost prohibitive. Materials listed under this authority throughout these specifications indicate the minimum recycled/reuse material content for this construction project.

1.15.2 Other recovered/recycled materials not listed may be submitted for evaluation and approval/disapproval by the Contracting Officer. Alternate materials shall be equal to or exceed the specified items in terms of durability, appearance and performance standards. All material and product submittals shall list recycled or recovered materials and percentage content.

1.15.3 Indoor Air Quality: Carpet shall bear the Carpet and Rug Institute (CRI) Indoor Air Quality (IAQ) Label. Carpet type bearing the label will indicate that carpet has been tested and meets the criteria of the CRI Green Label Requirements for Indoor Air Quality Test Criteria.

1.16 SAFETY:

1.16.1 The contractor shall comply with all applicable federal, state, and local safety requirements. The contractor is also required to comply with the American

General Contractors’ Safety Manual and the Occupational Safety and Health

Act.

1.16.2 Site Maintenance: The contractor shall protect property, buildings, and their contents from dust, dirt, or other materials. Contractor is to wet down dry materials, settle debris and prevent blowing dust. The contractor shall maintain work areas in a neat, clean, and safe condition. Work areas shall, at a minimum, be cleaned daily.

1.16.3 Fire Extinguishers: Two operational fire extinguishers shall be required at each area or location where hazardous operations are being performed. Extinguisher Requirements: Both portable fire extinguishers shall meet or exceed a rating of 4A-40BC, as listed by Underwriters Laboratory, Factory Mutual or any National Acceptable Testing Laboratory. Extinguishers not meeting this requirement are not acceptable.

* 1. **CLEANUP**:

1.17.1 The contractor shall collect all trash, debris, refuse, garbage, etc, which it generates and place in appropriate containers with lids or approved covers daily. The aforementioned materials shall be hauled from the site by appropriate means daily, unless otherwise approved by the Contracting Officer. Disposal shall be outside the limits of government property. Disposal shall be at a municipal solid waste landfill or by other approved methods and shall conform to all local, state, and federal guidelines, criteria, and regulations.

1.18 STORAGE

1.18.1 Storage Areas: The contractor shall keep all storage areas free of debris, refuse, spills, leaks, stains, splashes and excessive materials. All storage areas shall be maintained in a neat, clean, and safe condition. Any areas that incur contamination by any hazardous material or substances shall be cleaned up immediately by the contractor at no additional expense to the government. The contractor shall store all hazardous materials in a contractor supplied trailer or storage unit, which shall be leak proof or contain secondary containment devices. The storage unit shall be secured when contract personnel are not present.

## 1.18.2 Delivery: Floor Covering Materials shall be delivered to the project site in manufacturer’s original unopened containers with seals unbroken and labels and hallmarks intact. Materials shall be kept dry, protected from weather, and stored under cover in accordance with manufacturer’s instructions. The contractor is responsible for material storage until it is ready to be installed.

## 

**1.19 FINAL INSPECTIONS:** The Contractor shall coordinate with the QAP and shall request scheduling of the final inspections.

**1.20 SECURITY REQUIREMENTS:** All personnel employed by the contractor in the performance of this contract, or any representative of the contractor entering Bolling Air Force Base, shall abide by all security regulations of the installation.

1.20.1The contractor shall obtain personnel identification passes for all employees and vehicle passes for all contractor and personal vehicles entering Bolling AFB. The contractor shall submit a master personnel roster to the Contracting Officer. The master roster shall include all personnel working on the contract in alphabetical order to include, full name, date of birth, and social security number.

1.20.2 Lost vehicle and entry passes shall be reported immediately to Security Forces and the Contracting Officer.

1.20.3 The contractor shall retrieve all identification media, including vehicle passes from employees who depart the company for any reason before the contract expires.

## **1.21 WARRANTY**: Warranties under this contract shall include standard warranties offered by the manufactures to the general public. The contractor shall be responsible for replacing items within an appropriate period of such warranty for all floor covering products covered in this Performance Work Statement.

**1.22** **PERFORMANCE OF SERVICES DURING CRISIS DECLARED BY THE NATIONAL COMMAND AUTHORITY OR OVERSEAS COMBATANT COMMANDER IN ACCORDANCE WITH DoDI 3020.37:** In the event the contractor is unable to perform his daily operations due to peacetime emergency and/or wartime contingency disturbances, etc., neither the government nor the contractor shall take action for non-compliance with contractor requirements.

1. **SERVICE SUMMARY.** Required services under this PWS are summarized into performance objectives that relate directly to mission essential items. The performance threshold briefly describes the minimum acceptable levels of the services required. These thresholds are critical to mission success.

2.1The table shows the performance requirements that the Government will assess. The absence of any contract requirement of the service summary shall not detract from its enforceability nor limit the rights or remedies of the Government under any other provisions of the contract.

2.2 SURVEILLANCE METHODS: The surveillance methods the Government will use to evaluate the contractor’s performance include:

* + 1. Periodic inspection of the output.

2.2.2 One hundred percent inspection of the output.

2.2.3 Customer feedback of the processes and outputs.

2.3 PERFORMANCE EVALUATION:Services will be evaluated to determine whether performance meets the requirements of the contract.

|  |  |  |
| --- | --- | --- |
| **Performance Objective** | **PWS**  **Para** | **Performance Threshold** |
| **Remove Existing Floor Covering.** | 1.2 | All existing floor covering shall be removed 100%. No more than 1 validated customer complaints per work requirement. |
| **Install New Carpet.** | 1.4 | The contractor shall install new carpet to industrial standards 100% of the time. No more than 1 validated customer complaints per work requirement. |
| **Install New Vinyl/Linoleum/ Marmoleum Flooring.** | 1.5  1.6 | The contractor shall install new resilient flooring to industrial standards 100% of the time. No more than 1 validated customer complaints per work requirement. |
| **Install New Ceramic/Quarry Tile Flooring.** | 1.7 | The contractor shall install new ceramic or quarry tile flooring to industrial standards 100% of the time. No more than 1 validated customer complaints per work requirement. |
| **Install New Hardwood Floor Flooring.** | 1.8 | The contractor shall install new hardwood flooring to industrial standards 100% of the time. No more than 1 validated customer complaints per work requirement. |
| **Install New Rubber Flooring.** | 1.2 | The contractor shall install new rubber flooring to industrial standards 100% of the time. No more than 1 validated customer complaints per work requirement. |
| **Install New Accessories for new flooring, (cove base, transition pieces, etc.).** | 1.2  1.4.5  1.5.6  1.6.2 | The contractor shall install new accessories pieces for flooring to industrial standards 100% of the time. No more than 2 validated customer complaints per work requirement. |
| **Lift Modular Furniture** | 1.12.1 | The contractor shall lift all modular furniture without damage. No more than 2 validated customer complaints per work requirement. |
| **Site Clean up Accomplished** | 1.17 | 0 Deficiencies permitted |

3. GOVERNMENT FURNISHED PROPERTY/SERVICES

* 1. GOVERNMENT FURNISHED UTILITIES**:** Electricity, sewage, and water will be made available where existing. Telephone service shall be furnished at the expense of the contractor. The Contractor shall ensure all employees practice utilities conservation.
  2. GOVERNMENT FURNISHED MATERIALS: The government reserves the right to furnish floor covering materials, such as carpet (Broadloom or Tile), vinyl tile, quarry/ceramic tile, parquet, laminates, etc under special circumstances. Government furnished materials shall be made available when the need exist. Otherwise, the contractor shall be responsble for providing all materials/accessories that are not government furnished.

**APPENDIX A**

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

AIR FORCE TECHNICAL ENGINEERING TECHNICAL LETTER (ETL)

07-4: Air Force Carpet Standard

Code of Federal Regulations, Title 40 (40CFR) Part 61

Asbestos Abatement , 29 CFR 1926.1101

Resource Conservation and Recovery Act and Executive Order 12873, Recycling, and Waste Prevention

American General Contractors’ Safety Manual and the Occupational Safety and Health Act.

Hazardous Materials 49 CFR 172.101 and 40 CFR 302-304