
USACE / NAVFAC / AFCEA UFGS-09205N (September 1999)

Preparing Activity: NAVFAC Replacing without revision
NFGS of same number and date

UNIFIED FACILITIES GUIDE SPECIFICATIONS

References are in agreement with UMRL dated 23 June 2005

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FURRING AND LATHING

09/99

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SECTION 09205N

FURRING AND LATHING 09/99

NOTE: This guide specification covers the requirements for lathing for gypsum and portland cement-based plaster work.

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

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

Use of electronic communication is encouraged.

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

NOTE: Metal framing, furring and ceiling suspension systems for lathing are specified in Section 05400 COLD-FORMED METAL FRAMING and Section 09100 METAL SUPPORT ASSEMBLIES.

NOTE: If discoloration of exterior plaster work along the lines of the framing system used to support the lath (metal framing in particular and wood framing to a lesser extent) occurs or is anticipated, design the exterior wall with a thermal break between the metal lath and the framing members. One suggested solution is to install 12.7 mm 1/2 inch thick gypsum sheathing board, conforming to ASTM C 79, "Gypsum Sheathing Board," on the framing members before attaching the metal lath.

NOTE: On the drawings, show:

1. Location and extent of plastering
2. Type(s) and spacing of supports
3. Type(s) of plaster and location
4. Control joint locations
5. Fire resistance rating(s), where applicable
6. Sound transmission class (STC) rating(s), where applicable
7. Location and size of access panels and fabrication details for access panels larger than 600 by 900 mm 24 by 36 inches.

PART 1 GENERAL

1.1 REFERENCES

NOTE: Issue (date) of references included in project specifications need not be more current than provided by the latest guide specification. Use of SpecsIntact automated reference checking is recommended for projects based on older guide specifications.

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.

ASTM INTERNATIONAL (ASTM)

- | | |
|-------------|---|
| ASTM C 1063 | (2003) Installation of Lathing and Furring to Receive Interior and Exterior Portland Cement-Based Plaster |
| ASTM C 37 | (1995) Gypsum Lath |
| ASTM C 841 | (2003) Installation of Interior Lathing and Furring |

GYPSUM ASSOCIATION (GA)

- | | |
|--------|--------------------------------------|
| GA 600 | (2003) Fire Resistance Design Manual |
|--------|--------------------------------------|

UNDERWRITERS LABORATORIES (UL)

- | | |
|--------------------|----------------------------------|
| UL Fire Resist Dir | (2004) Fire Resistance Directory |
|--------------------|----------------------------------|

1.2 SUBMITTALS

NOTE: Submittals must be limited to those necessary for adequate quality control. The importance of an

item in the project should be one of the primary factors in determining if a submittal for the item should be required.

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

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

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

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

SD-03 Product Data

Lath

Accessories

Access panels

1.3 DELIVERY AND STORAGE

Deliver materials in the manufacturer's original unbroken packages or containers that are labeled plainly with the manufacturer's names and brands. Store materials in dry locations with adequate ventilation, free from water, and in such a manner to permit easy access for inspection and handling. [Stack gypsum lath flat to avoid sagging or damage to edges, ends, or surfaces, and protect from exposure to direct sunlight.]

PART 2 PRODUCTS

NOTE: This guide specification presents nonproprietary materials. When the guide specification is edited or supplemented to suit project requirements, care shall be exercised to present a project specification section which contains no proprietary materials.

2.1 LATH

2.1.1 Metal Plastering Base (Lath)

Provide the type(s) and weight(s) required for the type and spacing of supports shown for the kind of plaster indicated and specified. Do not use rib lath for ceramic tile scratch coat.

2.1.1.1 For Portland Cement-Based Plaster (Stucco)

ASTM C 1063, [diamond mesh] [self-furring diamond mesh] [flat rib] [10 mm 3/8 inch rib] [20 mm 3/4 inch rib] [sheet] [welded wire] [woven wire] metal lath weighing not less than [_____] kilograms per square meter pounds per square yard.

2.1.1.2 For Gypsum Plaster

NOTE: Consult Table 2 in ASTM C 1063 and Table 1 in ASTM C 841 to determine the type and weight of the metal lath based on the type and spacing of the support system shown on the project drawings.

ASTM C 841, [diamond mesh] [self-furring diamond mesh] [flat rib] [10 mm 3/8 inch rib] [20 mm 3/4 inch rib] [sheet] [welded wire] [woven wire] metal lath weighing not less than [_____] kilograms per square meter pounds per square yard.

2.1.1.3 Paper Backing (Waterproofed Kraft Building Paper)

NOTE: Specify "Moderate water-vapor Resistant" where moisture protection or use of vapor barrier is required. Specify "Water-vapor permeable" to maintain hollow partitions plaster free, to prevent plaster from bonding to substrate, to prevent over spray where plaster is sprayed on, to provide uniform plaster thickness and to improve bonding (keying). Edit paragraph as required.

Provide metal plastering base with paper backing, ["Moderate water-vapor Resistant" for room(s) [_____] ["Water-vapor permeable" for room(s) [_____] [and] [for exterior plastering work].

2.1.1.4 Galvanized Metal Plastering Base

NOTE: Specify galvanized metal plastering base for all exterior plastering and for plastering interior

areas subject to high moisture conditions such as
natatoriums and shower and laundry rooms.

Provide [for exterior plastering work] [and] [for plastering room(s)
[____]] [in all locations].

2.1.2 Gypsum Lath

NOTE: Specify only for interior gypsum plastering
work in relatively large, flat areas. Do not use
for curved areas or areas subject to high moisture
conditions.

ASTM C 37. Provide [plain] [Type X (fire resistant)] [foil-backed] gypsum
lath [9.53] [12.70] mm [3/8] [1/2] inch thick.

2.1.3 Accessories

NOTE: Referenced ASTM standards permit accessories
fabricated from:

1. ASTM C 1063:

- zinc coated (galvanized) steel
- zinc alloy
- rigid poly (vinyl chloride) (PVC) plastic

2. ASTM C 841:

- zinc coated (galvanized) steel
- paint coated steel
- rigid poly (vinyl chloride) (PVC) plastic
- clear plastic coated aluminum

If no exceptions are specified, these materials
become Contractor options. Include the last
sentence, appropriately edited, to exclude any
undesirable options.

[ASTM C 1063] [ASTM C 841]. [Provide only [galvanized steel] [zinc alloy]
[rigid poly (vinyl chloride) (PVC) plastic] [clear plastic coated aluminum]
accessories.]

2.2 ACCESS PANELS

NOTE: Detail fabrication of access panels larger
than 600 by 900 mm 24 by 36 inches on project
drawings.

Prefabricated steel units, size(s) [as indicated] [[____] by [____] mm
inches]. Fabricate frame of preformed angle or channel with welded joints.
Perforate wide leg or flange of frame section or extend frame section into

expanded metal wings to provide a key for the plaster. Cover shall be hinged or snap-on type with turn-latch or spring catch. [Access panels [for room(s) [____]] shall be provided with a means for locking.] Fabricate access panels not larger than 600 by 900 mm 24 by 36 inches from 1.8 mm thick 14 gage steel with frames not lighter than 1.5 mm thick 16 gage. Fabricate access panels larger than 600 by 900 mm 24 by 36 inches as indicated. Factory-prime panels with rust-inhibitive paint.

PART 3 EXECUTION

3.1 INSPECTION

Verify that framing, furring and accessories are securely attached and of proper sizes and spacing necessary to provide a suitable substrate to receive lath. Do not proceed with work until framing, furring and accessories are acceptable to the Contracting Officer for application of lath.

3.2 INSTALLATION

3.2.1 Lathing Materials and Accessories

Install in accordance with [ASTM C 1063 for portland cement-based plaster work] [and] [ASTM C 841 for gypsum plaster work], except where indicated or specified otherwise herein.

3.2.1.1 Metal Plastering Base

Install [where indicated] [on wood or metal studding, furring, joists, rafters, and similar framing members for plastered walls, partitions, ceilings, and soffits] [to receive scratch coat for ceramic tile or terrazzo work] [on [concrete] [and] [masonry] surfaces to receive plaster].

3.2.1.2 Metal Plaster Base with Paper Backing

Where used, lap joints to provide backing on backing and metal-on-metal. Lap backing not less than 25 mm one inch. Lap backing so that water will flow to the exterior.

3.2.1.3 Gypsum Lath

Install [where indicated] [on wood or metal studding, furring, joists, rafters and similar framing members for plastered walls, partitions, ceilings, and soffits].

3.2.1.4 Control (Expansion and Contraction) Joints

- a. For portland cement-based plaster (ceilings and walls), install to create panels no larger than 10 square meters 100 square feet with no dimension exceeding 3150 mm 10 feet.
- b. For unrestrained gypsum plaster ceilings install to create panels no larger than 250 square meters 2,500 square feet with no dimension exceeding 15800 mm 50 feet. For gypsum plaster walls, partitions and ceilings without perimeter relief install not more than 9000 mm 30 feet on centers in either direction.
- c. Install [where indicated,] where expansion joints occur in the structural walls and ceilings and where ceiling framing or furring

changes direction. Terminate lath at each side of joint and fasten joints securely to lath.

3.2.1.5 Unrestrained Ceilings

Furred or suspended ceilings constructed with [gypsum plaster and larger than 250 square meters 2,500 square feet in area or with any dimension exceeding 15,800 mm 50 feet] [or] [portland cement-based plaster] shall be unrestrained. Isolate ceiling lath and plaster from ceiling intersecting vertical surfaces with casing beads, control joints, or similar devices designed to keep the ceiling isolated from the adjacent vertical surfaces (walls, partitions, beams, and columns). Do not use corner reinforcement at the internal angle between the ceiling and the vertical surfaces.

3.2.1.6 Plastering Beads

Install edge trim (casing bead) [at the edges of plaster which abuts or adjoins an unplastered surface,] [on each surface at the internal angle formed by load bearing and non-load bearing walls and partitions abutting structural walls, columns, or floor-ceiling slabs,] [between concrete or terrazzo bases and the plaster above them,] [on each side of the joint between walls or partitions constructed of dissimilar materials which require plastering,] [and between plasters of a different composition]. Fill voids formed in corners with sealant. Install corner beads at all vertical external corners of plaster walls.

3.2.2 Fire-Resistant Assemblies

NOTE: Coordinate with the preparer of the project drawings to ensure that UL Design Number(s) or GA File Number(s) are indicated on the drawings for fire resistant construction.

Wherever fire-resistant construction is indicated, provide all materials and application methods, including types and spacing of fasteners, in accordance with the specifications contained in the [UL Fire Resist Dir for the Design Number(s) indicated], [or] [GA 600 for the File Number(s) indicated].

3.2.3 Access Panels

NOTE: Project drawings or specifications shall assure that the exact number and location of access panels can be easily determined. This information should be shown on the drawings. Coordinate with mechanical and electrical work to ensure adequate access to mechanical and electrical systems. Access panels shall not be installed in fire rated walls or ceilings unless approved by the Engineering Field Division's Fire Protection Engineer.

NOTE: Insert appropriate Section number and title in blank below using format per UFC 1-300-02.

Install in suspended ceilings and plastered walls at locations [indicated]
[and] [specified in [____]].

3.3 SCHEDULE

Some metric measurements in this section are based on mathematical conversion of inch-pound measurements, and not on metric measurement commonly agreed to by the manufacturers or other parties. The inch-pound and metric measurements are as follows:

| <u>PRODUCTS</u> | <u>INCH-POUND</u> | <u>METRIC</u> |
|----------------------|-------------------|---------------|
| Access Panels | 24 x 36 inches | 600 x 900 mm |
| | 14 gage | 1.8 mm |
| | 16 gage | 1.5 mm |
| -- End of Section -- | | |