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Preparing Activity:    NAVFAC      Superseding  
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## UNIFIED FACILITIES GUIDE SPECIFICATIONS

References are in agreement with UMRL dated October 2009

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#### DIVISION 09 - FINISHES

#### SECTION 09 22 00

#### SUPPORTS FOR PLASTER AND GYPSUM BOARD

08/09

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NOTE: On the drawings, show:

1. Locations of each type of metal framing, furring, or suspension system.
2. Spacing and gage of members if other than those required by referenced publication.
3. Seismic restraint for projects located in seismic zone 2, 3, or 4, in accordance with AISC 341 and NAVFAC P-355, "Seismic Design for Buildings".

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## PART 1 GENERAL

### 1.1 REFERENCES

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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 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.

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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.

#### AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)

AISC 341 (2005; Supp 2005) Seismic Provisions for Structural Steel Buildings

#### ASTM INTERNATIONAL (ASTM)

ASTM A 463/A 463M (2009) Standard Specification for Steel Sheet, Aluminum-Coated

ASTM A 653/A 653M (2009) Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process

ASTM C 645 (2009) Nonstructural Steel Framing Members

ASTM C 754 (2009) Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products

ASTM C 841 (2003e1; R 2008) Installation of Interior Lathing and Furring

ASTM C 847 (2009) Standard Specification for Metal Lath

NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS (NAAMM)

NAAMM ML/SFA 920 (1991) Metal Lathing and Furring

UNDERWRITERS LABORATORIES (UL)

UL Fire Resistance (2009) Fire Resistance Directory

## 1.2 SUBMITTALS

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NOTE: Review submittal description (SD) definitions in Section 01 33 00 SUBMITTAL PROCEDURES and edit the following list to reflect only the submittals required for the project. Submittals should be kept to the minimum required for adequate quality control.

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, Air Force, and NASA projects.

Choose the first bracketed item for Navy, Air Force and NASA projects, or choose the second bracketed item for Army projects.

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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.] Submit the following in accordance with Section 01 33 00

SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

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NOTE: Require drawings only for projects where  
complexity or quantity make it feasible.  
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Metal support systems[; G][; G, [\_\_\_\_\_]]

Submit for the erection of metal[ framing,][ furring,][ and][  
ceiling suspension systems]. Indicate materials, sizes,  
thicknesses, and fastenings.

1.3 DELIVERY, STORAGE, AND HANDLING

Deliver materials to the job site and store in ventilated dry locations. Storage area shall permit easy access for inspection and handling. If materials are stored outdoors, stack materials off the ground, supported on a level platform, and fully protected from the weather. Handle materials carefully to prevent damage. Remove damaged items and provide new items.

PART 2 PRODUCTS

2.1 MATERIALS

Provide steel materials for metal support systems with galvanized coating ASTM A 653/A 653M, Z180 G-60; aluminum coating ASTM A 463/A 463M, T1-75 T1-25; or a 55-percent aluminum-zinc coating.[ Provide support systems and attachments per [AISC 341][\_\_\_\_\_][NAVFAC P-355, "Seismic Design for Buildings"] in seismic zones.]

2.1.1 Materials for Attachment of Lath

2.1.1.1 Suspended and Furred Ceiling Systems and Wall Furring

ASTM C 841, and ASTM C 847.

2.1.1.2 Non-loadbearing Wall Framing

NAAMM ML/SFA 920.

2.1.2 Materials for Attachment of Gypsum Wallboard

2.1.2.1 Suspended and Furred Ceiling Systems

ASTM C 645.

2.1.2.2 Nonload-Bearing Wall Framing and Furring

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NOTE: Minimum thickness of 0.45 mm 0.0179 inch (25 gage) is standard for interior nonload-bearing studs without supporting attached loads. Choose the second option of 0.85 mm 0.0329 inch (20 gage) thickness for medical, dental or other building types requiring large quantities of wall supported cabinet work and equipment throughout the facility.  
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ASTM C 645, but not thinner than[ 0.45 mm 0.0179 inch thickness, with 0.85 mm 0.0329 inch minimum thickness supporting wall hung items such as cabinetwork, equipment and fixtures] [ 0.85 mm 0.0329 inch thickness. The ASTM certified third party testing statement for equivalent thicknesses shall not apply].

#### 2.1.2.3 Furring Structural Steel Columns

ASTM C 645. Steel (furring) clips and support angles listed in UL Fire Resistance may be provided in lieu of steel studs for erection of gypsum wallboard around structural steel columns.

#### 2.1.2.4 Z-Furring Channels with Wall Insulation

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**NOTE: The depth specified for Z-furring channels should be coordinated with the R-value specified for wall insulation thickness.**

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Not lighter than 0.5 mm thick 26 gage galvanized steel, Z-shaped, with 32 mm and 19 mm 1-1/4 inch and 3/4 inch flanges and [ [25] [38] [50] [75] mm [1] [1 1/2] [2] [3] inch furring depth] [depth as required by the insulation thickness provided].

### PART 3 EXECUTION

#### 3.1 INSTALLATION

##### 3.1.1 Systems for Attachment of Lath

##### 3.1.1.1 Suspended and Furred Ceiling Systems and Wall Furring

ASTM C 841, except as indicated otherwise.

##### 3.1.1.2 Non-loadbearing Wall Framing

NAAMM ML/SFA 920, except provide framing members 400 mm 16 inches o.c. unless indicated otherwise.

##### 3.1.2 Systems for Attachment of Gypsum Wallboard

##### 3.1.2.1 Suspended and Furred Ceiling Systems

ASTM C 754, except provide framing members 400 mm 16 inches o.c. unless indicated otherwise.

##### 3.1.2.2 Non-loadbearing Wall Framing and Furring

ASTM C 754, except as indicated otherwise.

##### 3.1.2.3 Furring Structural Steel Columns

Install studs or galvanized steel clips and support angles for erection of gypsum wallboard around structural steel columns in accordance with the UL Fire Resistance, design number(s) [indicated] [of the fire resistance rating indicated].

#### 3.1.2.4 Z-Furring Channels with Wall Insulation

Install Z-furring channels vertically spaced not more than 600 mm 24 inches o.c. Locate Z-furring channels at interior and exterior corners in accordance with manufacturer's printed erection instructions. Fasten furring channels to[ masonry][ and][ concrete] walls with powder-driven fasteners or hardened concrete steel nails through narrow flange of channel. Space fasteners not more than 600 mm 24 inches o.c.

#### 3.2 ERECTION TOLERANCES

Provide framing members which will be covered by finish materials such as wallboard, plaster, or ceramic tile set in a mortar setting bed, within the following limits:

- a. Layout of walls and partitions: 6 mm 1/4 inch from intended position;
- b. Plates and runners: 5 mm in 1.9 meters 1/4 inch in 8 feet from a straight line;
- c. Studs: 5 mm in 1.9 meters 1/4 inch in 8 feet out of plumb, not cumulative; and
- d. Face of framing members: 5 mm in 1.9 meters 1/4 inch in 8 feet from a true plane.

Provide framing members which will be covered by ceramic tile set in dry-set mortar, latex-portland cement mortar, or organic adhesive within the following limits:

- a. Layout of walls and partitions: 6 mm 1/4 inch from intended position;
- b. Plates and runners: 5 mm in 3.8 meters 1/8 inch in 8 feet from a straight line;
- c. Studs: 5 mm in 3.8 meters 1/8 inch in 8 feet out of plumb, not cumulative; and
- d. Face of framing members: 5 mm in 3.8 meters 1/8 inch in 8 feet from a true plane.

-- End of Section --