

SECTION 09 24 00 – PLASTER ASSEMBLIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes furnishing and installing:
1. Three coat Portland cement plaster on metal lath.
 2. Metal supports for suspended and furred ceilings and vertical furring.
 3. Expanded metal lath.
 4. Plastering accessories.

1.3 RELATED WORK

- A. Related Work of Other Sections:
1. Section 05 50 00 – Metal Fabrications.
 2. Section 07 92 00 – Joint Sealants.
 3. Section 09 21 13 – Gypsum Board Assemblies.
 4. Section 09 51 00 – Acoustical Ceiling Systems.
 5. Section 09 90 00 – Painting and Coatings.

1.4 SUBMITTALS

- A. Product Data: Submit product data for each plaster and accessory required, including specifications showing compliance with requirements.
- B. Samples: Submit 2 samples, approximately 12-inch (300 mm) square, of each plaster finish and texture required, showing full range of variations to be expected.

1.5 QUALITY ASSURANCE

- A. Mock-Up: Prior to installation of plaster work, construct a mock-up of approximately 100-sf (9-m) at a location within work as directed by Architect for the purpose of establishing aesthetic effects of application, texture and workmanship to be expected in the completed work.
1. If directed by Architect, make changes to mock-up to obtain Architect's acceptance.
 2. Upon approval by Architect, mock-up will be included as part of the work and will be used as a standard for judging completed work.

1.6 PROJECT CONDITIONS

- A. Environmental Requirements, General: Comply with requirements of referenced plaster application standards and recommendations of plaster manufacturer for environmental conditions before, during, and after plaster application.

PART 2 - PRODUCTS

2.1 CEMENT PLASTER MATERIALS AND MIXES

- A. Provide three-coat cement plaster on metal lath, complying with ASTM C 1063 and ASTM C 926 and at the locations indicated on the Drawings.
- B. Furring Materials: Cold rolled steel channels; 300-lb./1000 lf. for 3/4-inch size, 475-lb./1000 lf for 1-1/2-inch size; hot-dipped galvanized at exterior and "high humidity" areas.
- C. Hangers and Hanger Anchorages: Provide galvanized steel wire hangers conforming to ASTM A 641, Class 1, for suspended plaster work. Size hanger anchorage devices to develop full strength of hanger but not less than 3x calculated hanger load, except size direct pull-out concrete inserts for 5x calculated hanger load as determined by testing (ASTM E 488) conducted by a qualified independent testing agency.
- D. Metal Lath: Expanded steel; FS QQ-L-101, 3.4-lb./yd., rust- inhibitive paint finish, except hot-dipped galvanized finish at exterior and "high humidity" areas. Provide self-furring type where indicated or required.
- E. Metal Beads and Accessories: Galvanized steel at interior areas, solid zinc alloy at exterior and "high humidity" areas. Types include square edge casing beads and No. 40 expansion joints and No. 15 control joints by Metalex (Keene) or Inryco/Milcor, Pittcon Industries, Inc. "Softforms" extruded aluminum trim, and standard preformed interior corner reinforcement.
- F. Scratch Coat Mix: 1-part Portland cement, 1- to 2-parts masonry cement, 2-1/2- to 4-parts sand (ASTM C 897).
- G. Brown Coat Mix: 1-part Portland cement, 1- to 2-parts masonry cement, 3- to 5-parts sand (ASTM C 897).
- H. Base Coat Fibers: Add Dur-O-Wal "Dur-O-Fiber AR Glass" to above mixes as directed by manufacturer, but not to exceed 2-lb./cu. ft. of cementitious materials. Reduce sand quantity as required to maintain workability.
- I. Finish Coat Mix: 1-part gray Portland cement (ASTM C150, Type I), 1-part finishing lime (ASTM C 206, Type S), 3-parts fine sand (ASTM C 35; graded per ASTM C 842). Mix to achieve uniform sand float finish texture; match approved sample.

PART 3 - EXECUTION

3.1 LATH AND FURRING INSTALLATION, GENERAL

- A. Standards: Comply with ML/SFA 920, "Guide Specifications for Metal Lathing and Furring," and ASTM C 1063.
- B. Install supplementary framing, blocking, and bracing at terminations in work and for support of fixtures, equipment services, heavy trim, grab bars, handrails, furnishings, and similar work to comply with details indicated or, if not otherwise indicated, to comply with applicable written instructions of lath and furring manufacturer.
 - 1. At exterior soffits provide cross bracing and additional furring at hanger wires to resist a uniform wind uplift pressure of 31 psf.

- C. Isolation: Where lathing and metal support system abut building structure horizontally and where partition or wall abuts overhead structure, isolate from structural movement to prevent transfer of loading from building structure.
 - 1. Frame both sides of control joints independently and do not bridge joints with furring and lathing or accessories.
- D. Install additional framing, furring, runners, lath, and beads, as required to form openings and frames for other work as indicated. Coordinate support system for proper support of framed work that is not indicated to be supported independently of metal furring and lathing system.

3.2 NON-LOAD-BEARING FRAMING INSTALLATION

- A. Ceiling Suspension Systems:
 - 1. Preparation and Coordination: Coordinate installation of ceiling suspension system with installation of overhead structural systems to ensure inserts and other structural anchorage provisions have been installed to receive ceiling hangers in a manner that will develop their full strength and at spacings required to support ceiling.
 - 2. Hanger Installation: Comply with ML/SFA 920, "Guide Specifications for Metal Lathing and Furring," and with referenced standards.
 - a. Do not attach hangers to metal deck tabs.
 - 3. Install ceiling suspension system components of sizes and spacings indicated, but not in smaller sizes or greater spacings than those required by referenced lathing and furring installation standards.

3.3 LATHING

- A. Install where plaster base coats are required. Provide appropriate type, configuration, and weight of metal lath selected from materials indicated that comply with referenced ML/SFA specifications and ASTM lathing installation standards.
 - 1. Suspended and Furred Ceilings: Use flat diamond-mesh lath.
 - 2. Vertical Metal Framing and Furring: Use flat, diamond-mesh lath and cold-rolled channel stud framing.
 - 3. Exterior Sheathed Wall Surfaces: Use self-furring, diamond-mesh lath.

3.4 PREPARATIONS FOR PLASTERING

- A. Protect contiguous Work from damage and deterioration caused by plastering with temporary covering and other provisions necessary.
- B. Clean plaster bases and substrates for direct application of plaster, removing loose material and substances that may impair the Work.
- C. Install temporary grounds and screeds to ensure accurate rodding of plaster to true surfaces; coordinate with scratch-coat work.
- D. Refer to Section 07 62 00 – Flashing and Sheet Metal for installing flashing.

- E. Surface Conditioning: Immediately before plastering, dampen concrete and concrete unit masonry substrates, except where a bonding agent has been applied, to produce optimum suction for plastering.

3.5 PLASTERING ACCESSORIES INSTALLATION

- A. General: Comply with referenced lathing and furring installation standards for provision and location of plaster accessories. Miter or cope accessories at corners; install with tight joints and in alignment. Attach accessories securely to plaster bases to hold accessories in place and in alignment during plastering.
 - 1. External Corners: Install corner reinforcement at external corners Bend lath around external angles without using corner beads or reinforcement.
 - 2. Terminations of Plaster: Install casing beads, unless otherwise indicated.
 - 3. Control Joints: Install at locations indicated or, if not indicated, at locations complying with the following criteria and approved by Architect:
 - a. Where an expansion or contraction joint occurs in surface of construction directly behind plaster membrane.
 - b. Distance between Control Joints: Not to exceed 18-feet (5.4-m) in either direction or a length-to-width ratio of 2-1/2 to 1.
 - c. Wall Areas: Not more than 144-sq. ft. (13-sq. m).
 - d. Horizontal Surfaces: Not more than 100-sq. ft. (9-sq. m) in area.
 - e. Where plaster panel sizes or dimensions change, extend joints full width or height of plaster membrane.
- B. Where sound-rated plaster work is indicated by STC ratings or other notation, seal work at perimeters, control joints, openings, and penetrations with a continuous bead of acoustical sealant. Comply with ASTM C 919 and plaster manufacturer's written instructions for location of sealant beads.
- C. Install sound attenuation blankets within stud cavities where indicated.

3.6 PLASTER APPLICATION

- A. Portland Cement Plaster Application: Apply Portland cement plaster materials, composition, mixes, and required finishes to comply with ASTM C 926. Moisture cure plaster base and finish coats to comply with ASTM C 926, including written instruction for time between coats and curing in "Annex A2 design Considerations."
- B. Finish Coats: Apply finish coat to a minimum thickness of 1/8-inch (3-mm) to completely cover base coat, uniformly floated to a true even plane with fine-textured finish matching sample. Moist-cure plaster base and finish coats to comply with ASTM C 926, including written instructions for time between coats and curing in "Annex A2 Design Considerations."

3.7 CUTTING, PATCHING, AND CLEANING

- A. Cut, patch, replace, repair, and point up plaster as necessary to accommodate other work. Repair cracks and indented surfaces. Point-up finish plaster surfaces around items that are built into or penetrate plaster surfaces. Repair or replace work to eliminate blisters, buckles, check cracking, dry outs, efflorescence, excessive pinholes, and similar defects. Repair or replace work as necessary to comply with required visual effects.

- B. Remove temporary covering and other provisions made to minimize spattering of plaster on other work. Promptly remove plaster from door frames, windows, and other surfaces not to be plastered. Repair surfaces stained, marred or otherwise damaged during plastering work.

END OF SECTION 09 24 00