SECTION 09 22 36.10
FURRING AND LATHING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Requirements to furnish and erect all metal furring and lathing including accessories and trim, as required by Drawings. Lathing is intended to receive plaster or setting beds. Furring is intended to receive any finish Work other than heavy masonry, concrete, etc.

1.02 REFERENCE STANDARDS

A. References and industry standards listed in this Section are applicable to the Work. Unless more restrictive criteria or differing requirements are explicitly stated in the Specifications, or mandated by governing codes or regulations, the recommendations, suggestions, and requirements described in the referenced standards shall be deemed mandatory and applicable to the Work.

B. ASTM C841 - Standard Specification for Installation of Interior Lathing and Furring; 2003 (Reapproved 2013).

1.03 DEFINITIONS

A. Gages
   1. Sheet Steel: US Standard
   2. Steel Wire: US Steel Wire Gage

B. Galvanizing
   1. Hot-dip process, unless otherwise indicated.

1.04 SUBMITTALS

A. Product Data
   1. Submit manufacturer’s specifications and installation instructions for the following products: Lath, furring channels and accessories.

B. Samples
   1. Submit three (3) samples of the following for approval prior to delivery to job site;
      a. Lathing - coated and uncoated - 12 inches square.
      b. Furring Channels - 8 inches long min.

C. Quality Assurance Submittals
   1. Installer's affidavit certifying minimum of 5 years experience installing items specified.
   2. Certification and listing by an Approved Agency in accordance with NYC Dept. of Buildings rules, as applicable.

1.05 QUALITY ASSURANCE

A. Qualifications
   1. Installer is to be a firm with not less than (5) years of successful experience in the installation of specified materials.

B. Regulatory Requirements
   1. Building Code: Work of this Section shall conform to all requirements of the NYC Building Code and all applicable regulations of other governmental authorities.
   2. Certification and listing by an Approved Agency in accordance with NYC Dept. of Buildings rules, indicating that materials and assemblies regulated by the NYC Building Code are acceptable for the intended use. When test methods are stipulated in the NYC Building Code, the tests utilized shall be stated in the certification. Prior MEA and BSA approvals are acceptable for materials conforming to current Code requirements.
   3. Fire Resistance Ratings: Where ratings are indicated, match applicable assemblies tested per ASTM E119 by Fire Testing Laboratories.

1.06 DELIVERY, STORAGE AND HANDLING

A. Delivery
   1. Deliver materials in original packages, containers or bundles with identification of product and manufacturer's names clearly visible.

B. Storage
   1. Store materials inside, under cover and keep them dry and protected from contamination, aging, corrosion and damage.

C. Handling
   1. Protect metal corner beads and trim from being bent or damaged.
   2. All furring and lathing showing signs of rust will be rejected. All rejected Work is to be removed from the premises and replaced with new.

1.07 FIELD CONDITIONS

A. Coordination of Work.
   1. Coordinate layout and installation of furring and lathing with installation of the material that supports it.
   2. Coordinate layout and installation of furring and lathing with installation of Support System for Suspended Ceilings and Soffits specified in Section 05170 of this Specification in conformance with NYC Building Code Reference Standard 5-16 and all other regulatory agency requirements.
   3. All Work by other trades, above, supported by or penetrating walls, ceilings and soffits including electrical, heating and ventilation and plumbing and drainage Work is to be coordinated with the lath and plaster installation.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Subject to compliance with requirements, provide products of one of the specified manufacturers
   1. Dietrich Metal Framing
   2. Milicor Division; Inryco Inc.
   3. Phillips Manufacturing Co.
   4. Gold Bond Building Products Division; National Gypsum Co.
   5. United States Gypsum Co.

2.02 MATERIALS

A. Furring Channels
   1. 3/4" deep x 7/16" wide flanges, 16 gage, cold-rolled channels, 300 lbs. per 1000 ft. painted, 316 lbs. per 1000 ft. galvanized. S(in3) = 0.02; I(in4) = 0.0075. Use painted channels unless indicated otherwise.

B. Metal Lath
   1. Diamond Mesh Metal Lath: Galvanized steel expanded diamond mesh. Weight not less than 3.4 lbs. per sq. yd. Where self-furring lath is specified mesh shall have indentations or dimples that will hold lath not less than 3/8" from backing. Indentations spaced not more than 2" o.c. each way.
   2. Rib Metal Lath: Asphaltum painted copper alloy steel. Flat rib depth of not over 1/8" and weighing not less than 3.4 lbs. per sq. yd. When rib depth of 3/8" is indicated, weight is not less than 4.0 lbs. per sq. yd.
   3. Gypsum Lath: Perforated type complying with ASTM C37. Thickness and face dimensions as specified in schedule.

C. Metal Corner Beads
   1. Type as indicated below of zinc coated (galvanized) steel, #22 gage minimum:
      a. Small nose with expanded flanges, not less than 21/2" wide, each side.

b. Small nose with perforated flanges, not less than 21/2" wide, each side for use on curved corners.
c. Small nose with expanded flanges reinforced by perforated stiffening rib, for use on columns and finishing masonry corners, not less than 21/2" wide.

D. Casing Beads
1. Metal bead, expanded flange type fabricated of not less than 24 gage galvanized steel, 3" wide minimum.
a. Square edge, or quarter round edge at perimeter of openings.
b. Modified or semi-square edge where plaster abuts dissimilar material.

E. Wire for Furring Channels and Ties
1. ASTM A641/A641M, Class 1 zinc coating, soft temper.
2. Use .0475" diameter for tying lath and not less than .062" diameter for all other tying.

F. Base Screeds
1. # 24-gage min. sheet steel, hot galvanized with key holes or expansion type.

2.03 PAINTING

A. All steel members, unless galvanized, shall be dipped or painted one coat of acrylic rust-inhibitive type containing no lead equal to Tnemec 115 Unibond or Carboline Carbocrylic 3358. Paint must meet SCAQMD standards for VOC emissions.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verification of Conditions
1. Structural support of mechanical equipment and ductwork, electrical lighting and equipment and plumbing and drainage piping in the suspended ceilings and walls will be furnished and installed in the Section of this Specification relating to the specific installation.
2. Openings in wall or ceilings required by the Work of other trades will have to be coordinated with the Contractor in order that be may properly place anchors, hangers and carrying bars, if necessary, to avoid such ducts, pipes conducts, etc. Any changes required to be made in the locations of anchors, hangers and carrying bars by reason of the Contractor's failure to observe this requirement shall be made by the Contractor without additional cost to the Authority.
3. Where the above Work or any other Work of the various trades makes necessary a departure from the standard form of furring and lathing as specified or shown, obtain Architects approval before installing such Work and execute such Work in the manner determined or approved by the Architect without additional cost to the Authority.

B.

3.02 INSTALLATION - GENERAL

A. Install Work of this Section in accordance with the provisions of ASTM C841, except as otherwise indicated.

3.03 WALL FURRING INSTALLATION

A. Erect furring to form a true plane, or curved surface where so designed, and securely fasten in place. Space furring channels not to exceed 12 inches on center. Set furring at right angles to running channels, and with webs at right angles to surface of plaster. Except as otherwise indicated, secure furring to running channels or supporting structure with tie wires, clips, bolts or screws as applicable. Reinforce system at corners with extra furring members.
1. Splicing Furring Materials: Overlap spliced materials minimum 8". Then join materials by wire tying, screwing or bolting together.
2. Wire-tying Furring Channels to Running channels: Tie with eight strands of wire at each intersection of furring channel with running channel, two strands to each corner of the

intersection crossing diagonally on top of running channel and twisted at top of running channel.

3. Clipping Furring Channels to Running channels: Clinch clips over top of running channels.

3.04 CEILING AND SOFFIT FRAMING INSTALLATION (OPENINGS)

A. Frame openings with extra furring members of same size and weight as runner bars unless otherwise indicated.

1. Suspended Ceilings: Frame openings for registers, grilles, access doors, recessed electric fixtures and other items with rigid frames of furring channels or angles, bolted to running channels.

3.05 LATH INSTALLATION

A. Apply lath to form true surfaces, free from sags and buckles, and secure to furring or directly to supporting structure as indicated. Apply lath with the long dimension of sheets at right angles to the direction of bearing.

1. Metal Lath:
   a. Laps: Lap sides of sheets not less than 1/2 inch, nesting ribs if any. Lap ends of sheets not less than one inch, and locate end laps over bearings.
   b. Reinforcement for Internal Corners: Reinforce internal angles of lathed surfaces and intersections of lathed surfaces with masonry (to be plastered) with continuous corner reinforcing except at junctions of load bearing and non-load bearing elements.
   c. Fastening: Secure metal lath to each furring channel with lacing wire, on not exceeding 6 inch centers. Fasten side laps together with lacing wire midway between bearing, and fasten terminating side edge. Secure reinforcement to other lathing with lacing wire, and to masonry with galvanized nails, on not exceeding 6 inch centers. Twist ends of wire ties together, cut off 1/2 inch from twist, and bend ends back against the lath.
2. Gypsum Lath and Base: Butt edges of adjoining sheets together. Locate end joints on bearing, and stagger in successive courses. Reinforce corners of doors, windows and other openings with 18 inch long piece of strip reinforcing installed diagonally at corner.
   a. Fastening Gypsum Lath: Nail or screw lath to support system where possible. Clip or wire-tie to non-nailable supports. Use continuous wire clip system for securing lath to furring bars on ceilings.
   b. Fastening Gypsum Base: Anchor base (for veneer plaster) to support system with drive screws or self-tapping screws. For double-layer applications, anchor both layers to supports with screws.

3.06 ATTACHED CEILINGS INSTALLATION

A. Metal Stairs: Form attached ceilings at soffits of metal stairs with furring channels and diamond mesh metal lath.

B. Steel Joists: Form attached ceilings on steel joists with rib mesh metal lath for joist spacing not over 24", and with furring channels and diamond mesh metal lath for spans over 24". Secure lath or furring channels to joists with tie wire.

3.07 SUSPENDED CEILINGS INSTALLATION

A. Form suspended ceilings using furring channels, together with hangers and running channels specified in Section 05170-Support System for Suspended Ceilings (in compliance with N.Y.C. Building Code).

B. Verify that running channels are spaced properly for installation of furring channels.

C. Space furring channels 12" on center maximum, and secure to running channels with tie wire or clips.

D. Do not permit any part of suspension grillage to be in contact with walls or partitions.

3.08 FURRED CEILINGS INSTALLATION

A. Form furred ceilings with furring channels and diamond mesh metal lath unless otherwise indicated. Space furring 12" on center maximum, and secure to supporting construction with clips, expansion bolts, or by other approved equal method.

3.09 FURRING CHANNEL ENCLOSURES INSTALLATION

A. Secure 3/4 inch furring channels set vertically on 12 inch centers, to floor and ceiling plates. If pieces of bars shorter than height of partition are used, splice pieces by lapping not less than 8 inches with flanges interlocked and securely wired together. Use at least one full length between spliced channels.

B. Cover furring channels with diamond mesh metal lath.

3.10 BEAMS, CORNICES, COLUMNS AND PILASTERS INSTALLATION

A. Form the shape and design of plastered beams, cornices, columns and pilasters with furring bars and diamond mesh metal lath unless otherwise indicated, except where masonry backing of the required design is provided. Frame required shapes with furring channels spaced 12" on centers.

3.11 MISCELLANEOUS FURRING AND LATHING INSTALLATION

A. On areas to be plastered, lath over metal in masonry surfaces, close chases, reinforce joints between dissimilar materials (except at control and expansion joints), and install other furring and lathing as required to complete the plastering. Install reinforcement where indicated.

B. Use diamond mesh or rib mesh metal lath. The span between supports shall not exceed 12" for diamond mesh metal lath or 24" for rib mesh metal lath; install furring as required to provide such support. Lap lath 6" beyond each side of items being covered.

3.12 ACCESSORIES INSTALLATION

A. General: Set accessories in designed location, flush with finished plaster line, true to line and level or plumb. Align joints with concealed splices and tie plates. Use shims where necessary. Securely fasten in place without dependence upon the plastering. Beads and screeds shall be in one piece where height or length of straight run does not exceed 10 feet.

B. Corner Beads: Install continuous corner beads at all external corners of plaster, except where corners are rounded or covered by trim. Space fasteners not more than 12" on center on both sides of bead.

C. Casing Beads: Unless otherwise indicated, install continuous casing beads to terminate plaster at head and jambs of doors and windows, around the perimeter of suspended ceilings, at each side of expansion joints and at internal corner junctions of load bearing and non-load bearing elements. Space fasteners not more than 9" on center.

D. Screeds: Unless otherwise indicated, install screeds at control joints, slightly below top edge of vinyl and rubber bases, along top of tile and lime-Portland cement plaster wainscots, and along top of flush terrazzo and cement. Space fasteners not more than 9" on center.

3.13 CONTROL JOINTS

A. Portland Cement Plaster: Install control joints as indicated on the Drawings and at locations complying with the following criteria:
   1. Where a control joint occurs directly behind plaster.
   2. Where distance between control joints in plastered surface exceeds 10 ft. in either direction.
   3. Where area within Portland cement panels exceeds 100 sq. ft.
   4. Where Portland cement plaster panel changes size. Extend joints full width or height of plaster panel.

B. Gypsum Plaster: Install control joints as indicated on the Drawings and at locations required by reference standard and by plaster manufacturer. Space control joints not more than 30 feet on center.

3.14 FURRING APPLICATION

A. Furnish and install hung or furred ceilings in all locations indicated on Drawings.

B. Provide furring channels, stiffeners, and other furring members required to support the lathing for furred and hung ceilings, plaster enclosures for sheet-metal ducts, chases, furred beams and girders, range hood enclosures in kitchen, exposed portion of walk-in refrigerators extending from floor to kitchen ceiling, window soffits, cornices, arches, pilasters, etc., together with all clips, knees, clamps, bolts, etc. required to secure the various members together and to the structural Work. Drill all holes required for this Work.

C. Plaster soffit of proscenium arch shall be braced with channels, angles, etc., as required and as indicated on the Drawings.

D. Where plastered partitions occur within 2 feet of the side of fireproofed steel or concrete beam parallel to the partition, the space between partition and beam shall be furred and lathed so that the plaster will finish flush with soffit of beam.

E. Furr out wall spaces between window head and ceilings.

F. Include all furring angles, braces and clips required by Drawings.

G. Provide channels, metal lath, etc., as required, for furring above and below panel boards located in wall finished with structural facing tile facing or wainscot.

H. In corridors provide furred soffits and furred out spaces at drinking fountains, at window heads, fire extinguisher recesses, panel boxes, display cabinets and other locations. Include furring required above cases and cabinets where indicated.

I. All furring shall be done with vertical members plumb, horizontal members level and all true and even, so that the proper thickness shall be provided for the lathing and plastering. Where required, furring shall conform to shapes of arches, cornices, pilasters, ceiling beams, etc.

J. Furring members shall not be supported by partitions, except in closets 3 feet or less in horizontal dimensions. In such instances the furring channels shall be built in the partitions as Work progresses.

K. When indicated on Drawings furred enclosures shall be provided for horizontal ducts and flues and for solenoid gas valve enclosure in Kitchen.

L. Furnish and erect channel furring across entire furred out space above cases, cabinets, as indicated on Drawings and details. Include furring at soffits and space from window head to ceiling at windows in locations where indicated on Drawings.

M. For all plaster cornices having a projection of more than 6", and for all other ornamental plaster work, provide suitable brackets built up of angles, channels, flats, etc., so as to conform to the profile of the molded work, with horizontal string pieces connecting the brackets and bolted to same with 5/16" bolts. In all cases where heavy ornamentation or other special conditions occur special provisions shall be made to safely sustain the load imposed. All such provisions shall be subject to the review and approval of the Architect.

N. Spaces around panel boards, boxes or casing shall be furred out with metal lath and plastered flush with face of boxes.

O. Where steel plate access doors and frames or grille openings occur in bottom or sides of metal ducts, corresponding openings shall be framed in the furring directly under or opposite the openings in the ducts.

3.15 LATHING APPLICATION

A. Furnish approved metal lathing as required for furred and hung ceilings, enclosures for sheet-metal ducts and flues, furred beams and girders, window soffits, cornices, arches, pilasters, chases, stud partitions, furred out spaces over display cabinets and other cabinets, drinking fountains, fire extinguisher recesses, above wardrobes, cases, book cabinets, and at all other places where required, to properly provide for the plastering, and secure same to the furring at the location indicated on Drawings and as hereinafter specified. The lathing of furred

and hung ceilings when joining plastered walls or partitions shall turn down 3" and be stapled to same.

B. Door and window studding that project beyond the line of trim shall have a strip of metal lath 6" wide, covering the joint between studding and fireproofing.

C. Chases formed in partitions for electric conduits, panelboards, piping, etc., shall be covered with metal lathing extending 3" beyond line of opening on each side, but not put on until directed. All strips of metal lathing shall be secured at the edges to the studding or to fireproof blocks as the case may be.

D. Where pipes (plumbing or heating) and conduit occur within partitions that are to be plastered, provide and install metal lath (nailed or otherwise secured to the partitions) which shall span across the pipes and shall extend three inches beyond opening on each side. This shall apply whether or not the space is built up solidly with masonry. Similar lath shall be provided at electrical installations where unable to build in masonry around the installations. Lath for this Work shall be herringbone mesh pattern with 3/8" V-shaped ribs spaced at 4½" intervals, on both sides of partitions.

E. Where plastering is required at the flush junctions between concrete and any of the materials specified for partitions, a strip of wire lath shall be provided and installed extending three inches on either side of such junctions to prevent the cracking of the finished plaster.

F. Where convector openings occur in narrow partitions, the backs of such openings shall be enclosed with furring channels tap screwed to frame, and metal lath covering the entire opening, secured to furring channels with approved wire ties; see details.

G. Lath sheets shall be at right angles to the furring bars. Lath shall be securely tied to each furring bar at intervals of 6", with wire specified.

H. All wire used by the lathing sub-contractor at the job shall be of one type. Wherever wire is required for tying splices or channels to running bars, it shall be the same wire as is used for tying lath to channels. The only other acceptable means of fastening is by means of approved clips or bolts.

3.16 CORNER BEADS AND PLASTER STOPS - APPLICATION

A. Corner Beads
   1. For the full height of all vertical salient angles in plastered walls.
   2. For the full length of all horizontal salient angles in plastered surfaces which occurs 8'-0" or less above finished floor.
   3. For the full length of all horizontal salient angles in plastered surfaces which may occur above the 8'-0" level as follows:
      a. Soffits of window openings.
      b. Dropped ceilings, beam soffits, etc.
      c. Window pockets in furred or hung ceilings.

B. Casing Beads
   1. At all locations where plaster terminates or abuts dissimilar materials including concrete ceilings and concrete beam haunches, except where covered by trim.

C. Base Screeds
   1. Furnish and set approved base screeds for all cement bases, and at the top of all Portland or Keene's cement wainscot.

END OF SECTION