

## RESIDENTIAL HOUSENET™ CAVITY WALL SPECIFICATIONS

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### MASONRY ACCESSORIES 04090

This MANU-SPEC utilizes the Construction Specifications Institute (CSI) *Manual of Practice*, including *MasterFormat*, *SectionFormat*, and *PageFormat*. A MANU-SPEC is a manufacturer specific proprietary product specification using the proprietary method of specifying applicable to project specifications and master guide specifications. Optional text is indicated by brackets (); delete optional text in final copy of specification. Specifier Notes typically precede specification text; delete notes in final copy of specification. Trade/brand names with appropriate symbols typically are used in Specifier Notes; symbols are not used in specification text. Metric conversion, where used, is soft metric conversion.

This MANU-SPEC specifies a fabricated open mesh intended to catch and permanently suspend mortar droppings above weep holes, marketed under the Residential HouseNet™ brand name, as manufactured by Mortar Net USA, Ltd. (Patent Reissue #36676) When placed in the collar joint or cavity on top of the flashing at the base of a wall, the Mortar Net catches and permanently suspends mortar droppings in an irregular pattern above the weep hole vents. Due to its unique trapezoidal shape and strong plastic construction, mortar droppings cannot fall to the base of the flashing, so weep hole vents stay open. Because it prevents mortar droppings from forming a continuous dam, and due to its 90% open weave, moisture can pass quickly and easily to the weeps and air pressure differentials between the cavity and the exterior can equalize through the open weeps and Mortar Net itself. Revise MANU-SPEC section number and title below to suit project requirements, specification practices and section content. Refer to CSI MasterFormat for other section numbers and titles. Including 04050 Basic Masonry Materials & Methods; 04090 Masonry Accessories; 04200 Masonry Units; and 04800 Masonry Assemblies.

### SECTION 04090 MASONRY ACCESSORIES (MASONRY ASSEMBLIES)

#### PART 1 GENERAL

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##### 1.01 SUMMARY

A. Section Includes: Mortar dropping collection device for masonry veneer walls.

*Specifier Note: Revise paragraph below to suit project requirements. Add section numbers and title per CSI MasterFormat and specifier's practice.*

B. Related Sections: Section(s) related to this section include:

1. Unit Masonry: Division 4 Unit Masonry Assembly Section.
2. Wall Flashing: Division 7 Flashing Section.
3. Brick and Block Vents: Division 10 Vents Section.

*Specifier Note: Retain paragraph below to suit project requirements. Coordinate with Part 2 Products herein and other Contract Documents.*

C. Unit Prices: Products and Installation included in this section are specified by unit prices. Refer to Division 1 Unit Prices Section for unit prices amounts and requirements.

1. Unit Price: Unit price is per lineal foot (304.8 mm).

## 1.02 SYSTEM DESCRIPTION

- A. System Description: Use Residential HouseNet™ as part of standard masonry veneer wall flashing/weep hole wall drainage systems. The Residential HouseNet™ keeps weep hole vents open and flashing free of mortar droppings and debris by catching and permanently suspending droppings above the level of the top of the weep hole vents, by preventing mortar from forming a continuous barrier against proper water flow to the weeps and by providing routes through the body of the product itself for water to flow to the flashing and weeps.
- B. Performance Requirements: Provide (Section/Product Title) which has been manufactured, fabricated and installed to withstand loads from (specify code/standard reference,) and to maintain (specify performance criteria,) performance criteria stated (certified) by manufacturer without defects, damage or failure.

*Specifier Note: Article below includes submittal of relevant data to be furnished by Contractor before, during or after construction. Coordinate this article with Architect's and Contractor's duties and responsibilities in Conditions of the Contract and Division 1 Submittal Procedures Section.*

## 1.03 SUBMITTALS

- A. General: Submit listed submittals in accordance with Conditions of the Contract and Division 1 Submittal Procedures Section.
- B. Product Data: Submit product data, including manufacturer's SPEC-DATA product sheet, for specified products.
- C. Samples: Submit selection and verification samples.
- D. Quality Assurance Submittals: Submit the following:
1. Certificates: Product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria.
  2. Manufacturer's Instructions: Manufacturer's Installation Instructions.
- E. Closeout Submittals: Submit the following:
1. Warranty: Warranty documents specified herein.

*Specifier Note: Article below should include prerequisites, standards, limitations and criteria which establish an overall level of quality for products and workmanship for this section. Coordinate below article with Division 1 Quality Assurance Section.*

## 1.04 QUALITY ASSURANCE

- A. Installer Qualifications: Installer experienced in performing work of this section who has specialized in installation of work similar to that required for this project.

*Specifier Note: Paragraph below should list obligations for compliance with specific code requirements particular to this section. General statements to comply with a particular code are typically addressed in Conditions of the Contract and Division 1 Regulatory Requirements Section. Repetitive statements should be avoided.*

- B. Regulatory Requirements: (Specify applicable requirements of regulatory agencies.)

*Specifier Note: Coordinate paragraph below with Division 1 Project Management and Coordination (Project Meetings) Section.*

#### **1.04 QUALITY ASSURANCE (cont.)**

- C. Pre-installation Meeting: Conduct pre-installation meeting to verify project requirements, substrate conditions, manufacturer's installation instructions and manufacturer's warranty requirements. Comply with Division 1 Project Management and Coordination (Project Meetings) Section.

Specifier Note: Article below should include special and unique requirements. Coordinate article below with Division 1 Product Requirements Section.

#### **1.05 DELIVERY, STORAGE AND HANDLING**

- A. General: Comply with Division 1 Product Requirements Sections.
- B. Ordering: Comply with manufacturer's ordering instructions and lead time requirements to avoid construction delays.
- C. Packing, Shipping, Handling and Unloading: (Specify applicable requirements.)

*Specifier Note: Products of 1", 2", and .4" thick material are shipped 80 lineal feet (24,384 mm) per cardboard box, with sixteen 5' (1524 mm) sections per box. Product requires no special handling, is very lightweight, and boxes and loose materials are easily handled by 1 person. Secure loose and boxed material during strong winds.*

- D. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- E. Storage and Protection: Store materials protected from exposure to harmful weather conditions and at temperature conditions recommended by manufacturer.
1. Do not expose material to direct sunlight for more than 2 weeks. If material is protected from exposure to direct sunlight it may be stored indefinitely.

#### **1.06 SEQUENCING**

- A. General: Install the Residential HouseNet™ product after flashing has been installed, the first 1 or 2 courses of brick have been laid, and weep holes have been created. Install product before third or higher courses of brick have been laid.

Specifier Note: Coordinate article below with Conditions of the Contract and with Division 1 Closeout Submittals (Warranty) Section.

#### **1.07 WARRANTY**

- A. Project Warranty: Refer to Conditions of the Contract for project warranty provisions.
- B. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document executed by authorized company official. Manufacturer's warranty is in addition to, and not a limitation of, other rights Owner may have under Contract Documents.

### **1.07 WARRANTY (cont.)**

*Specifier Note: Coordinate paragraph below with manufacturer's warranty requirements. Mortar Net USA, Ltd. warrants its products to be of the quality and composition stated and free of manufacturer's defects. It will replace or refund the purchase price of any product proved defective. This limited warranty is the only warranty extended by Mortar Net USA, Ltd. In regard to its product, Mortar Net USA, Ltd.'s liability shall not exceed the purchase price of the material in question. Every construction project is unique; therefore, every use of Residential HouseNet™ and Mortar Net Weep Vents must be evaluated and approved by a qualified professional such as an architect or engineer familiar with the project.*

1. Warranty Period: (Specify term,) years commencing on Date of Substantial Completion.

### **PART 2 PRODUCTS**

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*Specifier Note: Retain article below for proprietary method specification. Add product attributes, performance characteristics, material standards and descriptions as applicable. Use of such phrases as "or equal" or "or approved equal" or similar phrases may cause ambiguity in specifications. Such phrases require verification (procedural, legal and regulatory) and assignment of responsibility for determining "or equal" products.*

#### **2.01 MASONRY VENEER WALL DRAINAGE SYSTEM**

A. Manufacturer: Mortar Net USA, Ltd.

*Specifier Note: Paragraph below is an addition to CSI SectionFormat and a supplement to MANU-SPEC. Retain or delete paragraph below per project requirements and specifier's practice.*

1. Contact: 541 South Lake Street, Gary, IN 46403; Telephone: (800) 664-6638, (219) 939-3870; Fax: (219) 939-3877, E-mail: [webmaster@mortarnet.com](mailto:webmaster@mortarnet.com) Website: [www.mortarnet.com](http://www.mortarnet.com)

*Specifier Note: The Mortar Net is manufactured of nylon, high density polyethylene (HDPE) or polyester, fabricated in a 90% open mesh, 2", 1" or 0.4" (51, 25.4, 10.2 mm) thick. It has no negative reaction to PVC, polyethylene, polystyrenes, copper, lead, rubberized asphalt, or stainless steel and will not degrade or decompose over the life of the building. It will not absorb or trap moisture and water, and it will not support mold or fungus. The Mortar Net is patented, U.S. Patent Reissue #36676.*

B. Proprietary Product(s)/System(s): The Residential HouseNet™ accessory.

1. Mortar Net MN 10-1: 7¾" (196.9 mm) high x 1" (25.4 mm) thick material.
2. Mortar Net MN 10-4: 7¾" (196.9 mm) high x 0.4" (10.2 mm) thick material.
3. Mortar Net MN 10-2: 7¾" (196.9 mm) high x 2" (51 mm) thick material.

*Specifier Note: Edit article below to suit project requirements. If substitutions are permitted, edit text below. Add text to refer to Division 1 Project Requirements (Product Substitutions Procedures) Section.*

#### **2.02 SUBSTITUTIONS**

A. Product Substitutions: No substitutions permitted.

## **2.03 MATERIALS**

*Specifier Note: 1" (25.4 mm) material is high density polyethylene (HDPE), 0.4" (10.2 mm) thick material is nylon, and 2" (51 mm) thick material is recycled polyester. None of these materials will oxidize, rot, support mold or fungus, or react with common building materials, including mortar, cement asphalt, modified bitumen, PVC, copper, steel, or galvanized metal, and they are not edible by insects. The material retains its slope anti-rigidity and is undamaged by extended exposure to normal field temperatures, and is highly resistant to UV degradation.*

- A. Materials: Manufacturer's standard Residential HouseNet™ material for specified product.
1. All dimensions are nominal. Measurements are inclusive of the continuous bottom strip and the dovetail shape.
  2. Three available sizes: 1" (25.4 mm) and 0.4" (10.2 mm) thicknesses by 7.75" (197 mm) height by 5' (1524 mm) long. 2" (51 mm) thick by 7.75" (197 mm) x 5' (1524 mm) long.
  3. Continuous bottom strip on all sizes of material is 3" (76.2 mm) high, regardless of material thickness or overall material height.
  4. 1" (25.4 mm) thick product is high density polyethylene (HDPE), 0.4" (6.4 mm) thick product is nylon, and 2" (51 mm) thick material is recycled polyester. Product is a 90% open weave mesh in a dovetail configuration connected by a continuous bottom strip.

## **2.04 SOURCE QUALITY**

- A. Source Quality: Obtain the Mortar Net materials from a single manufacturer.

## **PART 3 EXECUTION**

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*Specifier Note: Article below is an addition to the CSI SectionFormat and a supplement to MANU-SPEC. Revise article below to suit project requirements and specifier's practice.*

### **3.01 MANUFACTURER'S INSTRUCTIONS**

- A. Compliance: Comply with manufacturer's product data, including product technical bulletins, product catalog installation instructions and product carton instructions for installation.

### **3.02 EXAMINATION**

- A. Site Verification of Conditions: Verify substrate conditions, which have been previously installed under other sections are acceptable for product installation in accordance with manufacturer's instructions.
1. Match product size to cavity size. Cavity should be no more than 1/4" (6.4 mm) wider than 1" (25.4 mm) thick material and 2" (51 mm) thick material, and 0.4" (10.2 mm) thick material should touch both the outer wythe and the inner wall. For cavities larger than 2" (51 mm), place rigid insulation of sufficient height to extend at least 6" (152 mm) above the top of the Residential HouseNet™ against the outside of the inner wythe and of appropriate thickness to reduce the cavity to the appropriate size.
  2. Inspect for and repair holes in flashing immediately prior to installing Residential HouseNet™.

### 3.03 PREPARATION

- A. Preparation: Clean flashing and weep holes so they are free of mortar droppings and debris immediately prior to installing Mortar Net. If wicks are used (not recommended), prevent mortar from coating or covering wicks inside the cavity. Washing flashing with water or chemicals prior to installation is not necessary.

Specifier Note: Coordinate article below with manufacturer's recommended installation details and requirements.

*Specifier Note: Manufacturer recommends placing 1 continuous row of Residential HouseNet™ in the collar joint or cavity on the flashing at the base of the wall, at each flashing level and over lintels. Position with the zigzag side up (see manufacturer's CAD details). The Mortar Net should fit snugly in cavity, so if cavity is greater than 2" (51 mm) wide, either use several thicknesses of The Mortar Net or use appropriately sized styrofoam board (or equivalent) not less than 16" (406 mm) high as a spacer to fill excess space. Place spacer against the outside of the interior wall so The Mortar Net is against the inside of the exterior wythe. If no spacer is used, flashing should extend not less than 6" (152 mm) above the top of The Mortar Net to avoid the possibility of mortar bridging between the exterior wythe and interior wall. Adhesives, fasteners, special skills or tools are not required.*

### 3.04 INSTALLATION

A. Mortar Net Installation:

1. For most walls, install 1 continuous row of The Mortar Net at base of wall and over all wall openings directly on flashing.
2. To prevent mortar bridging between the outer wythe and inner wall, install flashing extending from the bottom of The Mortar Net to at least 6" (152 mm) above the top of The Mortar Net.
3. Multiple thicknesses of Residential HouseNet™ may be installed to match cavity widths and if excessive droppings are expected. Inspection, preparation and installation procedure for multiple thicknesses is the same as for single thickness. When installing multiple thicknesses, align the dovetail sections with each other.
4. To match cavity width to product thickness without using multiple thicknesses of Residential HouseNet™, place rigid insulation of appropriate thickness against outside face of inner wall.
5. Lay the first 1 or 2 courses of brick at flashing level, then install Residential HouseNet™ continuously by placing it against the inside of the openings. No fasteners or adhesives are required, and mortar need not have set.
6. Residential HouseNet™ shall not come in contact with wall ties standard wall tie installations, but if it does, it may be cut or torn to accommodate wall ties, conduit, plumbing or other materials that bridge or intrude into cavity between inner and outer walls.
7. Compress Residential HouseNet™ horizontally so it can be forced into cavities slightly smaller than its nominal thickness without affecting Mortar Net or wall performance.
  - a. When forcing Residential HouseNet™ into a cavity, be sure mortar has set sufficiently to resist outward pressure from product.

B. Related Products Installation: Refer to other sections for installation of related products as follows:

1. Masonry: Refer to Division 4 Unit Masonry Sections.

### 3.05 PROTECTION

1. Protection: Protect installed product from damage during construction.

### END OF SECTION