

SECTION 08 95 43  
FLOOD VENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Flood Vents.

1.2 RELATED SECTIONS

- A. Section 03 30 00 - Cast-in-Place Concrete.
- B. Section 04 05 19.13 - Masonry Control and Expansion Joints.
- C. Section 04 40 00 - Stone Assemblies.
- D. Section 04 40 00 - Stone Assemblies.
- E. Section 06 10 00 - Rough Carpentry.
- F. Section 07 90 00 - Joint Protection.
- G. Section 08 36 16 - Single-Panel Doors.
- H. Section 10 71 00 - Exterior Protection.

1.3 REFERENCES

- A. ASCE/SEI 24-98, Flood Resistant Design and Construction.
- B. ASCE/SEI 24-05, Flood Resistant Design and Construction.
- C. ASCE/SEI 24-14, Flood Resistant Design and Construction.
- D. FEMA, 44-CFR, Part 59-60 and 60.3 National Flood Insurance Program (NFIP).
- E. FEMA TB 1-2008, Openings in Foundation Walls and Walls of Enclosures for Buildings Located in Special Flood Hazard Areas.
- F. FEMA TB 2-2008, Flood Damage-Resistant Materials Requirements.
- G. NER-624, National Evaluation Report No. NER-624, July 2007.
- H. International Code Council ICC-ES Acceptance Criteria for Automatic Foundation Flood Vents (AC-364), October 2007.
- I. International Code Council ICC-ES Acceptance Criteria for Mechanically Operated Flood Vents (AC-364), October 2013.
- J. UL - Test for Fire Dampers in conjunction with flood vents.
- K. 2018 IECC - International Energy Conservation Code.

1.4 DESIGN / PERFORMANCE REQUIREMENTS

- A. SMART VENT Products Flood Vents are Engineered Openings comply with the following:
  - 1. Certifications:

- a. International Code Council - Evaluation Service Report (ESR-2074) including Florida Building Code Supplement, California Building and Residential Code Supplement.
  - b. Florida Building Product Approval (FL5822) approved for use in High Velocity Hurricane Zones (HVHZ) and impact rated garage doors.
2. Compliance:
- a. ICC-ES Acceptance Criteria for Mechanically Operated Flood Vents (AC364).
  - b. FEMA Technical Bulletin 1: Openings in Foundation Walls and Walls of Enclosures (TB-1).
  - c. NFIP Flood Insurance Manual.
  - d. American Society of Civil Engineers: Flood Resistant Design and Construction (ASCE 24).
  - e. International Residential Codes (IRC).
  - f. International Building Codes (IBC).
  - g. International Energy Conservation Code (IECC).
  - h. Florida Building Code (FBC).
  - i. California Building and Residential Code (CBC and CRC).
  - j. Houston, TX Code Of Ordinances Chapter 19 Floodplain.

#### 1.5 SUBMITTALS

- A. Submit under provisions of Section 01 30 00 - Administrative Requirements.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
  - 1. Preparation instructions and recommendations.
  - 2. Storage and handling requirements and recommendations.
  - 3. Installation methods.
- C. Manufacturer's Certificates: Certify products meet or exceed specified requirements.

#### 1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum 5 years documented experience.
- B. Installer Qualifications: Installer with experience on projects of a similar size and scope with similar installation conditions.

#### 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- B. Store products in clean, dry area indoors until ready for installation. Store materials in accordance with manufacturer's instructions.
- C. Protect materials and finish from damage during handling and installation.

#### 1.8 SEQUENCING

- A. Ensure that locating templates and other information required for installation of products of this section are furnished to affected trades in time to prevent interruption of construction progress.
- B. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

#### 1.9 WARRANTY

- A. Provide the manufacturer's limited 15-year warranty.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Smart Vent Products, Inc., which is located at: 430 Andbro Dr. Unit 1; Pitman, NJ 08071; Tel: 877-441-8368; Email: [request info \(info@smartvent.com\)](mailto:info@smartvent.com); Web: [www.smartvent.com](http://www.smartvent.com)
- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

### 2.2 FLOOD VENTS

- A. General: Vents are constructed of Marine Grade 316 Stainless Steel formed and smooth-welded with a rigid construction. Frames are designed for installation in masonry, concrete, or framed walls, stud walls, garage doors and metal panels. Vents have a pivoting door assembly that is fitted with two patented sealed floats that provide vermin protection and immediately and automatically release the door upon contact with rising water to relieve unbalanced lateral forces on foundation walls. All flood vents are required to work bi-directionally, without human intervention.
- B. Dual Function Flood Vent Series: Provide both flood protection and natural air ventilation. Louvered blades are temperature controlled with a bimetal coil and the screen is vermin resistant:
  - 1. SMART VENT Products Model #1540-510: Ventilated with Louvered Blades and Screen.
    - a. Flood Coverage: 200 sq. ft.
    - b. Air Ventilation: 51 sq.in.
    - c. Size: 16 inches W by 8 inches H.
    - d. Rough Opening: 16-1/4 inches W by 8-1/4 inches H.
  - 2. SMART VENT Products Model #1540-511 Double or Stacking Model: Ventilated with Louvered Blades and Screen.
    - a. Flood Coverage: 400 sq. ft.
    - b. Air Ventilation: 102 sq.in.
    - c. Size: 16 inches W by 16 inches H.
    - d. Rough Opening: 16-1/4 inches W by 16-3/8 inches H.
  - 3. SMART VENT Products Model #1540-150202 (1540-0039) 2 x 2 Multi-frame: Ventilated with Louvered Blades and Screen.
    - a. Flood Coverage: 800 sq. ft.
    - b. Air Ventilation: 204 sq.in.
    - c. Size: 32-1/2 inches W by 16 inches H.
    - d. Rough Opening: 33 inches W by 16-3/8 inches H.
  - 4. SMART VENT Products One Piece Multi-Frame Model (304 SS Powder Coat):
    - a. Amount of vents wide: \_\_\_\_\_(no more than six)
    - b. Amount of vents high: \_\_\_\_\_(no more than three)
    - c. Flood Coverage: \_\_\_\_\_sq. ft. (amount of vents multiplied by 200)
    - d. Air Ventilation: \_\_\_\_\_sq. in. (amount of vents multiplied by 51)
- C. Insulated Series: Provide flood protection only. Insulated Core with perimeter weather-stripping.
  - 1. FLOOD VENT Products Model #1540-520: Flush or Solid Insulated Door.
    - a. Flood Coverage: 200 sq. ft.
    - b. Insulated Core R-Value: 8.34
    - c. Size: 16 inches W by 8 inches H.

- d. Rough Opening: 16-1/4 inches W by 8-1/4 inches H.
  - 2. FLOOD VENT Products Model #1540-521 Stacking Model: Flush or Solid Insulated Doors.
    - a. Flood Coverage: 400 sq. ft.
    - b. Insulated core R-Value: 8.34
    - c. Size: 16 inches W by 16 inches H.
    - d. Rough Opening: 16-1/4 inches W by 16-3/8 inches H.
  - 3. FLOOD VENT Products Model #1540-150202 (1540-0239) 2 x 2 Multi-frame: Flush or Solid Insulated Door.
    - a. Flood Coverage: 800 sq. ft.
    - b. Insulated core R-Value: 8.34
    - c. Size: 32-1/2 inches W by 16 inches H.
    - d. Rough Opening: 33 inches W by 16-3/8 inches H.
  - 4. FLOOD VENT Products #1540-570 Wood Stud Wall Model: Flush or Solid Insulated Doors.
    - a. Flood Coverage: 200 sq. ft.
    - b. Insulated core R-Value: 8.34
    - c. Size: 14-1/2 inches W by 8-3/4 inches H.
    - d. Rough Opening: 14-1/2 inches W by 8-3/4 inches H.
  - 5. FLOOD VENT Products #1540-524 Overhead Garage Door Model: Flush or Solid Insulated Doors, standard finish powder-coated white.
    - a. Flood Coverage: 200 sq. ft.
    - b. Insulated core R-Value: 8.34
    - c. Size: 16 inches W by 8 inches H.
    - d. Rough Opening: 16 inches W by 8 inches H.
  - 6. FLOOD VENT Products #1540-574 Overhead Garage Door Model: Flush or Solid Insulated Doors, standard finish powder-coated white.
    - a. Flood Coverage: 200 sq. ft.
    - b. Insulated core R-Value: 8.34
    - c. Size: 14-1/2 inches W by 8-1/2 inches H.
    - d. Rough Opening: 14-1/2 inches W by 8-1/2 inches H.
  - 7. FLOOD VENT Products One Piece Multi-Frame Model (304 SS Powder Coat):
    - a. Amount of vents wide: \_\_\_\_\_ (no more than six)
    - b. Amount of vents high: \_\_\_\_\_ (no more than three)
    - c. Flood Coverage: \_\_\_\_\_ sq. ft. (amount of vents multiplied by 200)
- D. Fire Dampers: UL Rated.
- 1. Fire-Rated Dual Function Vent Model #1540-530: 2-hour fire rated with fusible link damper. For use in masonry walls in conjunction with Dual Function Flood Vent Model #1540-510.
  - 2. Fire-Rated Flow Thru Vent Model #1540-530: 2-hour fire rated with fusible link damper. For use in masonry walls in conjunction with Insulated Series Vent Model #1540-520.
  - 3. Fire-Rated Flow Thru Vent Model #1540-537: 2-hour fire rated with fusible link damper. For use in wood walls in conjunction with Insulated Series Vent Model #1540-570.
- E. Accessories:
- 1. Installation Clips, four for each vent, with the exception for Wood Wall, Overhead Door, and Multi-frame models.
  - 2. Sealant: HurriBond™ ([www.hurribond.com](http://www.hurribond.com)) or equivalent adhesive for masonry or concrete surfaces.
  - 3. Adjustable wrench for thru-bolted models and screwdriver for stud wall models.
  - 4. Trim and Sleeves: Sleeves for use in 'un-filled' masonry and for, Fire Walls where 'air-space' is required on Exterior Walls and to finish off the inside of openings:
    - a. Adjustable Sleeve/Trim #1540-531-12: 8 inches to 12 inches.
    - b. Adjustable Sleeve/Trim #1540-531-15: 12 inches to 15 inches.
    - c. Wood Wall Model #1540-570 Interior Trim Flange #1540-573, 4 inch.

- d. Wood Wall Model #1540-570 Interior Trim Flange #1540-573, 9 inch.
- F. Powder-Coat Finish with color as follows:
  - 1. Black
  - 2. White
  - 3. Gray
  - 4. Wheat
  - 5. Custom
- G. Insulated Sealing Kit: Flood Vent Sealing Kit Model #1540-526 to provide tight seal behind the vent opening – must be used in conjunction with SMART VENT Insulated Model #1540-520.
  - a. When a flood event occurs, the pre-cut Homasote® sealing material dislodges from the frame, creating an unobstructed opening to allow flood water to flow through freely.
  - b. Installed on the interior wall.
  - c. Finish: White.

### PART 3 EXECUTION

#### 3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. Verify vent locations are ready to receive work, and dimensions are as indicated on shop drawings or as instructed by manufacturers.
- C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

#### 3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Review and coordinate setting drawings, templates, and related items that are to be embedded in concrete and masonry.
- C. Verify that no obstructions exist that will interfere with the proper operation of the vents.
- D. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

#### 3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Install vents in at least two different walls spaced evenly around foundation perimeter, and located a maximum of 12 inches higher than the, interior or exterior grade, to the bottom of vent.
- C. Install vents plumb, level, square, true to line, and rigid.
- D. Attach vents securely in place using fasteners supplied or approved by manufacturer.
- E. Separate incompatible materials to prevent galvanic corrosion.
- F. Install one single height flood vent for every 200 sq. ft. of enclosed space below floodplain.

- G. Install one double height flood vent for every 400 sq. ft. of enclosed space below floodplain.
- H. Install one quad assembly flood vent for every 800 sq. ft. of enclosed space below floodplain.
- I. Install one multi-frame for every \_\_\_\_\_sq. ft. of enclosed space below the floodplain.
- J. Adjust flood vents for proper operation.

3.4 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

3.5 SCHEDULES

- A. :
- B. :

END OF SECTION

Please feel free to copy and paste the below graphics to your plans.



SMART VENT  
MODEL 1540-510 BY:



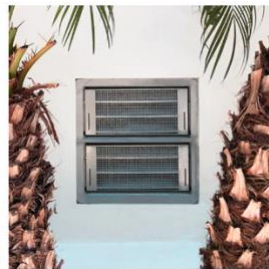
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