

September 7, 2021

Thomas Mocko, Environmental Planner
Town of Glastonbury
2155 Main Street
Glastonbury, CT 06033

RE: Special Permit Application for Pre-Fab Garage at 1917 Main St located in 100 Year Flood Zone

Dear Mr. Mocko,

Enclosed is ~~10~~ copies of the following:

Special Permit Application Cover Sheet, 1 page

State of Connecticut \$60 Fee Form, 1 page

List of Abutters, 1 page

Classic Vintage Storage Building shop drawings, 4 pages

Smart-vent specifications, 2 pages and ICC-ES Evaluation Report, 8 pages

Photograph of Proposed Pre-Fab Structure and Existing Structure that it will replace, 4 pages

Site Plan @ 1" = 20'-0" provided by Aeshliman Land Surveying, P.C.

The purpose of this project is to replace an existing garage that was in dangerous condition. The 22' x 23'-4" pre-fabricated storage building is built on a pervious bed of gravel and 4x4 timber beams located 12" on center with open space between the sleepers. (See Photo) In lieu of the manufacturer's standard installation anchoring system, we are installing the structure on 12 (twelve) sonotube footings at the Building Official's request. We are also installing 4 (four) insulated flood vents which covers 200 SF of area per vent.

An alternative option would have been to install a garage with a concrete slab on grade and continuous footing and foundation wall that would have created a greater water displacement area within the 100 year flood area.

Thank you for your time in reviewing this application. Please do not hesitate to call me at (860)989-6228 or Steve Aeshliman (860)528-4881 if you have any questions.

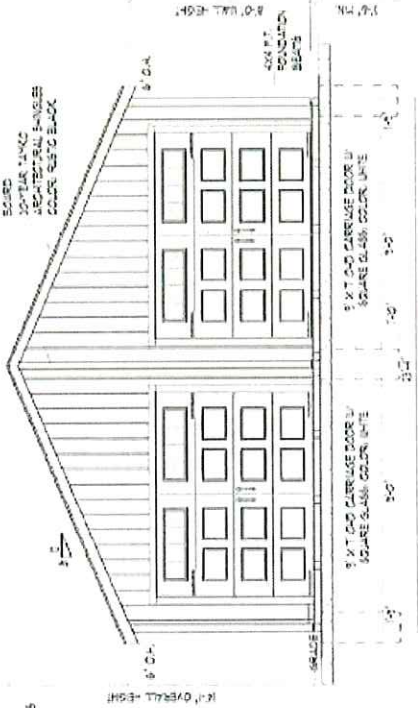
Sincerely,



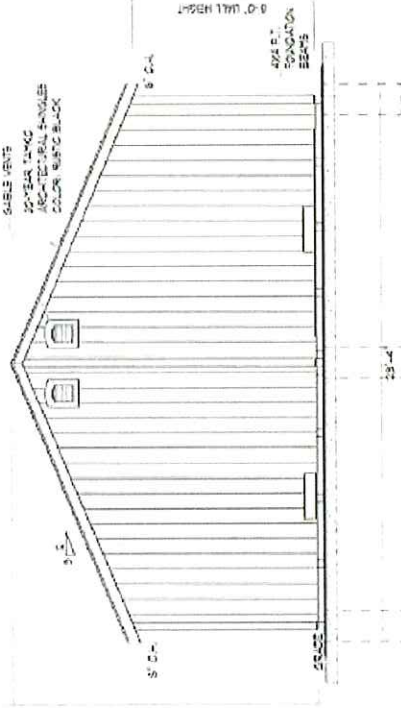
Cheryl Newton
1917 Main Street
Glastonbury CT 06033



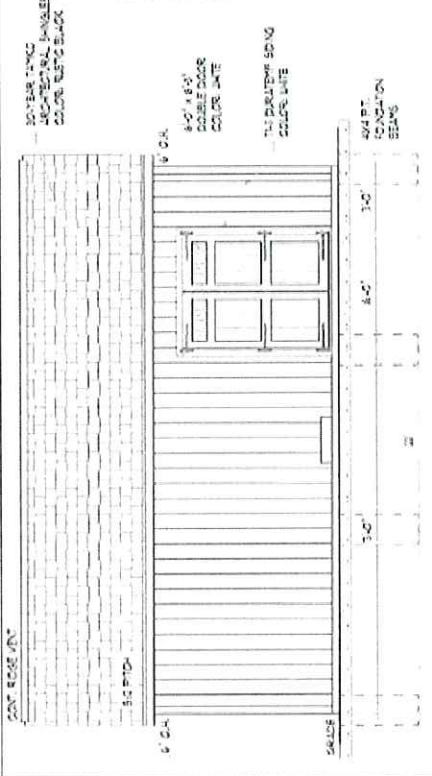
PROJECT: CLASSIC VINTAGE STORAGE BUILDING
 PERMIT: 555E SHOP DRAWING
 DATE: 1.14.17
 DRAWN BY: EUG
 CHECKED BY: GARYL NEUTON
 SCALE: AS SHOWN
 SHEET: 7437
 121 MAIN STREET
 GASTONVILLE, NY 12525



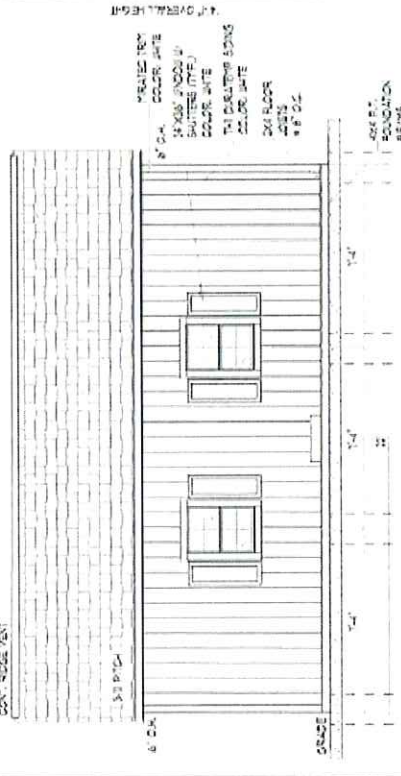
NOTE:
 BUILDING DESIGNED TO WITHSTAND
 HYDROSTATIC PRESSURE
 ON ALL SIDES.



Warning: This is a revision of the original drawing. The owner is responsible for the accuracy of the information. The engineer is not responsible for the accuracy of the information unless he is acting under the direction of a licensed Professional Engineer. Do not use this drawing in any way.



RIGHT ELEVATION
 SCALE: 1/8" = 1'-0"



STANDARD FEATURES CONT.
 3/4" OSB SHEATHING ON EXTERIOR WALLS
 1/2" OSB SHEATHING ON ROOF
 1/2" OSB SHEATHING ON FLOOR
 2x4 STUDS ON EXTERIOR WALLS
 2x6 STUDS ON ROOF
 2x8 STUDS ON FLOOR

STANDARD FEATURES CONT.
 3/4" OSB SHEATHING ON EXTERIOR WALLS
 1/2" OSB SHEATHING ON ROOF
 1/2" OSB SHEATHING ON FLOOR
 2x4 STUDS ON EXTERIOR WALLS
 2x6 STUDS ON ROOF
 2x8 STUDS ON FLOOR

STANDARD FEATURES CONT.
 3/4" OSB SHEATHING ON EXTERIOR WALLS
 1/2" OSB SHEATHING ON ROOF
 1/2" OSB SHEATHING ON FLOOR
 2x4 STUDS ON EXTERIOR WALLS
 2x6 STUDS ON ROOF
 2x8 STUDS ON FLOOR

THE BARN YARD CONTRACTOR LICENSES
 (CT) #559916, (RI) #3105, (MA) #11107890
 (NY) #080124871, (VA) #1200804814, (NC) #14080146

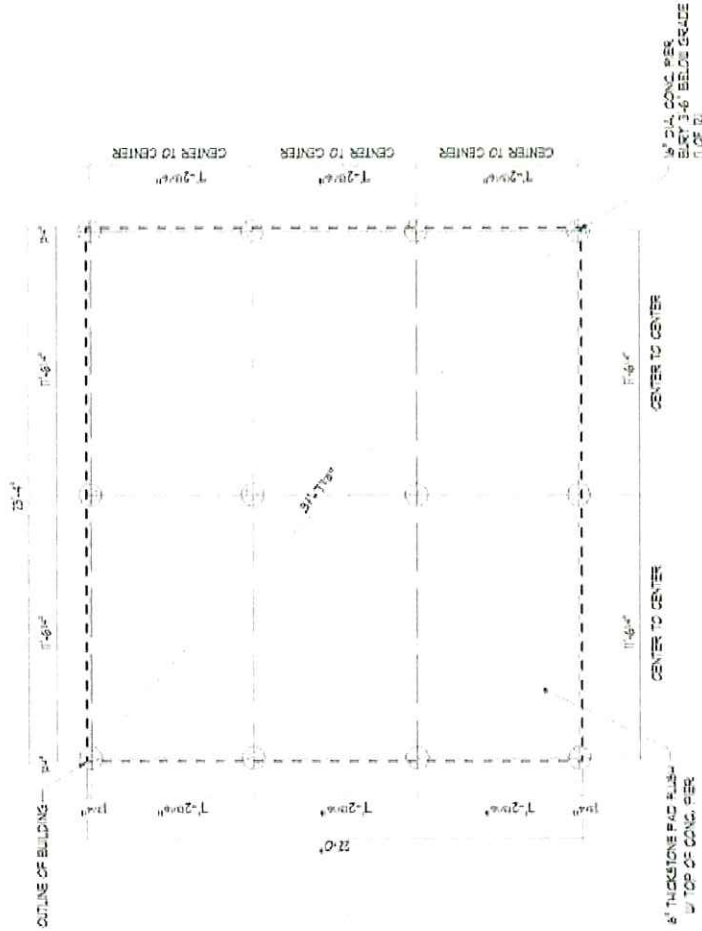
SHEET 1 OF 4

CLASSIC VINTAGE STORAGE BUILDING

CLASSIC VINTAGE STORAGE BUILDING
 PERMIT ISSUE SHOP DRAWING
 NO. 12345
 DATE: 10/20/2023



CLASSIC VINTAGE STORAGE BUILDING
 PERMIT ISSUE SHOP DRAWING
 NO. 12345
 DATE: 10/20/2023
 CONTRACTOR: CERYL NEITON
 181 MAIN STREET
 GASTONVILLE, VT 05146

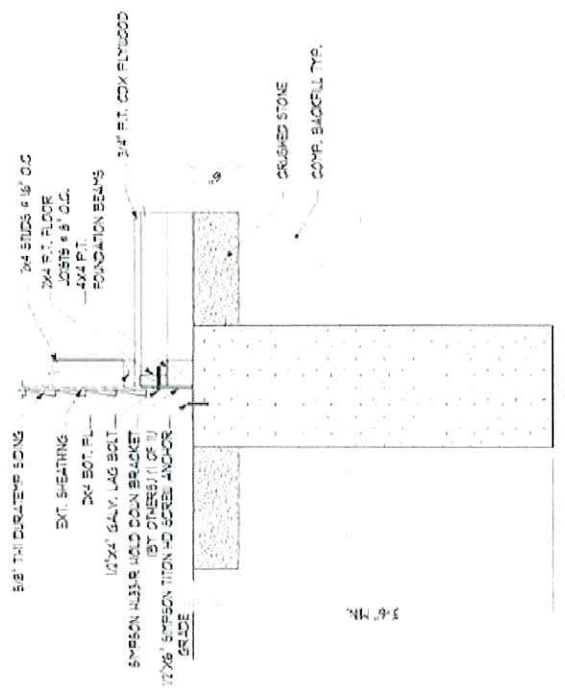


Warning: This is a violation of the N.J.A.C. 17:27, unless he is acting under the direction of a licensed Professional Engineer, to show this item in any way.

THE BARN YARD CONTRACTOR LICENSES
 (CT) 0559916, (RI) 03105, (MA) H.I.C. 071950
 (MA) C.S. 99999, (NY) UC-2009-45414 / PC-0146

SHEET 2 OF 4

CLASSIC VINTAGE STORAGE BUILDING

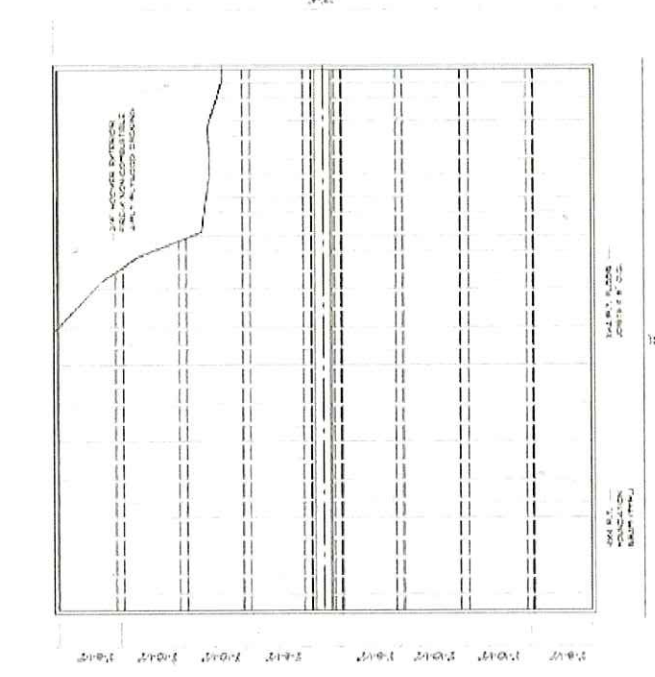


PIER SECTION DETAIL

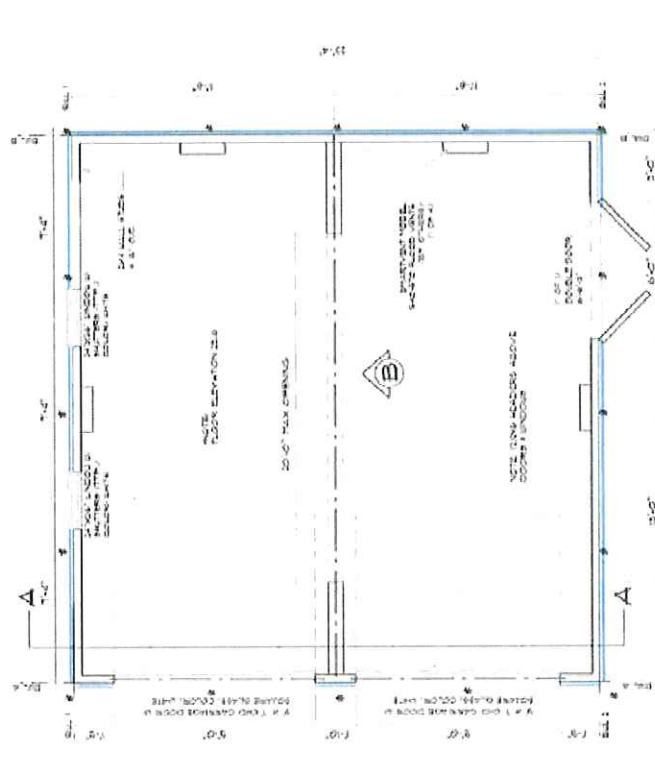
CLASSIC VINTAGE STORAGE BUILDING
 25 BARN YARD
 1000 WEST 10TH AVENUE
 GASTONVILLE, GA 30149
 (770) 528-1234
 www.thebarnyard.com



CLASSIC VINTAGE STORAGE BUILDING
 25 BARN YARD
 1000 WEST 10TH AVENUE
 GASTONVILLE, GA 30149
 (770) 528-1234
 www.thebarnyard.com



FLOOR FRAMING PLAN



FLOOR PLAN

MEMBER	TYPE	SECTION	ORIENTATION	BRACING
2x4	JOIST	HORIZONTAL	VERTICAL	DIAGONAL
2x6	BLOCKING	VERTICAL	VERTICAL	DIAGONAL
2x8	BLOCKING	VERTICAL	VERTICAL	DIAGONAL

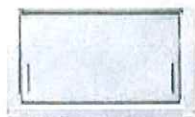
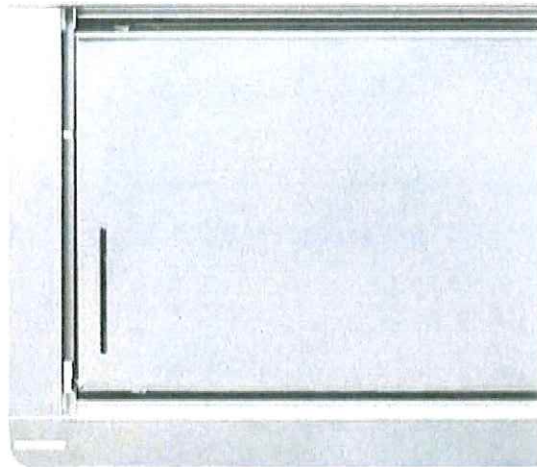
BRACED WALL SCHEDULE & NOTES

Member is a section of the IBC 2006, unless he is acting under the direction of a licensed Professional Engineer, to issue this form in any way.

THE BARN YARD CONTRACTOR LICENSES
 (GA) #559916, (RI) #3105, (MA) #112 47-550
 (NY) C.S. #99918, (NY) UC-26545H14, #C-8146

SHEET 3 OF 4

CLASSIC VINTAGE STORAGE BUILDING

[< Back to Product Catalog](#)

Stainless Steel



White



Black

Model Number

1540-570[Find Dealer](#)

Flood Coverage

200 sq.ft.

Air Ventilation

N/A

Vent Size

14.5" w x 8.5" h x 3" d

Rough Opening

14.5" w x 8.75" h

Available Colors

Stainless Steel, White, Black, Gray, Wheat

Insulated Flood Vent - Wood Wall

Application

This series is used for a garage or conditioned space where flood protection is required but air ventilation is not desired. This model is designed to fit between 16" on center stud wall construction. For situations where a sealed crawlspace is being utilized in a floodplain, flood protection is still required and the Insulated FLOOD VENT series is the perfect fit for those applications.

Flood Protection

The vent door is latched closed until it comes in contact with flood water. Entering flood water lifts the patented internal floats which unlatch and allow the door to rotate open. This allows the flood water to automatically enter and exit through the frame opening, relieving the pressure from the foundation walls. Certified flood debris clearance is demonstrated with a 3" diameter opening when the flood door is activated.

Insulation

Resources

[Installation Instructions](#)[CAD File](#)[ICC-ES Certification](#)[Florida Product Approval](#)[Portfolio](#)[Installation Video](#)

Related Products

[Fire Damper - Wood Wall](#)[Finish Flange - Wood Wall
4'-6.5' Wall](#)[Finish Flange - Wood Wall
9'-11.5' Wall](#)

The flood door contains a 2" insulated core that has an R-value of 8.34. There is also a felt weather stripping that lines the entire vent frame helping to keep the enclosure as insulated as possible.

- 316L MARINE GRADE STAINLESS STEEL
- ICC-ES CERTIFIED | ESR-2074
- FLORIDA BUILDING PRODUCT APPROVED
- FEMA ACCEPTED
- 15 YEAR EXTENDED WARRANTY
- MADE IN THE U.S.A.

Gallery



LOOKING FOR SMART VENTS?

Find Your Local Dealer



Most Widely Accepted and Trusted

ESR-2074

Reissued 02/2021

Revised 04/2021

This report is subject to renewal 02/2023.

ICC-ES Evaluation Report

ICC-ES | (800) 423-6587 | (562) 699-0543 | www.icc-es.org

DIVISION: 08 00 00—OPENINGS

SECTION: 08 95 43—VENTS/FOUNDATION FLOOD VENTS

REPORT HOLDER:

SMART VENT PRODUCTS, INC.

EVALUATION SUBJECT:

**SMART VENT® AUTOMATIC FOUNDATION FLOOD VENTS: MODELS #1540-520;
#1540-521; #1540-510; #1540-511; #1540-570; #1540-574; #1540-524; #1540-514
FLOOD VENT SEALING KIT #1540-526**



"2014 Recipient of Prestigious Western States Seismic Policy Council (WSSPC) Award in Excellence"



A Subsidiary of

ICC-ES Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by ICC Evaluation Service, LLC, express or implied, as to any finding or other matter in this report, or as to any product covered by the report.



Copyright © 2021 ICC Evaluation Service, LLC. All rights reserved.

DIVISION: 08 00 00—OPENINGS
Section: 08 95 43—Vents/Foundation Flood Vents

REPORT HOLDER:

SMART VENT PRODUCTS, INC.

EVALUATION SUBJECT:

SMART VENT® AUTOMATIC FOUNDATION FLOOD VENTS: MODELS #1540-520; #1540-521; #1540-510; #1540-511; #1540-570; #1540-574; #1540-524; #1540-514
 FLOOD VENT SEALING KIT #1540-526

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2021, 2018, 2015, 2012, 2009 and 2006 *International Building Code*® (IBC)
- 2021, 2018, 2015, 2012, 2009 and 2006 *International Residential Code*® (IRC)
- 2021, 2018 *International Energy Conservation Code*® (IECC)
- 2013 *Abu Dhabi International Building Code* (ADIBC)[†]

[†]The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

Properties evaluated:

- Physical operation
- Water flow

2.0 USES

The Smart Vent® units are engineered mechanically operated flood vents (FVs) employed to equalize hydrostatic pressure on walls of enclosures subject to rising or falling flood waters. Certain models also allow natural ventilation.

3.0 DESCRIPTION

3.1 General:

When subjected to rising water, the Smart Vent® FVs internal floats are activated, then pivot open to allow flow in either direction to equalize water level and hydrostatic pressure from one side of the foundation to the other. The FV pivoting door is normally held in the closed position by a buoyant release device. When subjected to rising water, the buoyant release device causes the unit to unlatch, allowing the door to rotate out of the way and allow flow. The water level stabilizes, equalizing the lateral forces. Each unit is

fabricated from stainless steel. Smart Vent® Automatic Foundation Flood Vents are available in various models and sizes as described in Table 1. The SmartVENT® Stacking Model #1540-511 and FloodVENT® Stacking Model #1540-521 units each contain two vertically arranged openings per unit.

3.2 Engineered Opening:

The FVs comply with the design principle noted in Section 2.7.2.2 and Section 2.7.3 of ASCE/SEI 24-14 [Section 2.6.2.2 of ASCE/SEI 24-05 (2012, 2009, 2006 IBC and IRC)] for a maximum rate of rise and fall of 5.0 feet per hour (0.423 mm/s). In order to comply with the engineered opening requirement of ASCE/SEI 24, Smart Vent FVs must be installed in accordance with Section 4.0.

3.3 Ventilation:

The SmartVENT® Model #1540-510 and SmartVENT® Overhead Door Model #1540-514 both have screen covers with 1/4-inch-by-1/4-inch (6.35 by 6.35 mm) openings, yielding 51 square inches (32 903 mm²) of net free area to supply natural ventilation. The SmartVENT® Stacking Model #1540-511 consists of two Model #1540-510 units in one assembly, and provides 102 square inches (65 806 mm²) of net free area to supply natural ventilation. Other FVs described in this report do not offer natural ventilation.

3.4 Flood Vent Sealing Kit:

The Flood Vent Sealing Kit Model #1540-526 is used with SmartVENT® Model #1540-520. It is a Homasote 440 Sound Barrier® (ESR-1374) insert with 21 – 2-inch-by-2-inch (51 mm x 51 mm) squares cut in it. See Figure 4.

4.0 DESIGN AND INSTALLATION

4.1 SmartVENT® and FloodVENT®:

SmartVENT® and FloodVENT® are designed to be installed into walls or overhead doors of existing or new construction from the exterior side. Installation of the vents must be in accordance with the manufacturer's instructions, the applicable code and this report. Installation clips allow mounting in masonry and concrete walls of any thickness. In order to comply with the engineered opening design principle noted in Section 2.7.2.2 and 2.7.3 of ASCE/SEI 24-14 [Section 2.6.2.2 of ASCE/SEI 24-05 (2012, 2009, 2006 IBC and IRC)], the Smart Vent® FVs must be installed as follows:

- With a minimum of two openings on different sides of each enclosed area.

- With a minimum of one FV for every 200 square feet (18.6 m²) of enclosed area, except that the SmartVENT[®] Stacking Model #1540-511 and FloodVENT[®] Stacking Model #1540-521 must be installed with a minimum of one FV for every 400 square feet (37.2 m²) of enclosed area.
- Below the base flood elevation.
- With the bottom of the FV located a maximum of 12 inches (305.4 mm) above the higher of the final grade or floor and finished exterior grade immediately under each opening.

4.2 Flood Vent Sealing Kit

The Flood Vent Sealing Kit Model 1540-526 is used in conjunction with FloodVENT[®] Model #1540-520. When installed and tested in accordance with ASTM E283, the FV and Flood Vent Sealing Kit assembly have an air leakage rate of less than 0.2 cubic feet per minute per lineal foot (18.56 l/min per lineal meter) at a pressure differential of 1 pound per square foot (50 Pa) based on 12.58 lineal feet (3.8 lineal meters) contained by the Flood Vent Sealing Kit.

5.0 CONDITIONS OF USE

The Smart Vent[®] FVs described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 The Smart Vent[®] FVs must be installed in accordance with this report, the applicable code and the manufacturer's installation instructions. In the event of a conflict, the instructions in this report govern.

- 5.2 The Smart Vent[®] FVs must not be used in the place of "breakaway walls" in coastal high hazard areas, but are permitted for use in conjunction with breakaway walls in other areas.

6.0 EVIDENCE SUBMITTED

- 6.1 Data in accordance with the ICC-ES Acceptance Criteria for Mechanically Operated Flood Vents (AC364), dated August 2015 (editorially revised February 2021).
- 6.2 Test report on air infiltration in accordance with ASTM E283.

7.0 IDENTIFICATION

- 7.1 The Smart VENT[®] models and the Flood Vent Sealing Kit described in this report must be identified by a label bearing the manufacturer's name (Smartvent Products, Inc.), the model number, and the evaluation report number (ESR-2074).
- 7.2 The report holder's contact information is the following:

SMART VENT PRODUCTS, INC.
 430 ANDBRO DRIVE, UNIT 1
 PITMAN, NEW JERSEY 08071
 (877) 441-8368
www.smartvent.com
info@smartvent.com

TABLE 1—MODEL SIZES

MODEL NAME	MODEL NUMBER	MODEL SIZE (in.)	COVERAGE (sq. ft.)
FloodVENT [®]	1540-520	15 ³ / ₄ " X 7 ³ / ₄ "	200
SmartVENT [®]	1540-510	15 ³ / ₄ " X 7 ³ / ₄ "	200
FloodVENT [®] Overhead Door	1540-524	15 ³ / ₄ " X 7 ³ / ₄ "	200
SmartVENT [®] Overhead Door	1540-514	15 ³ / ₄ " X 7 ³ / ₄ "	200
Wood Wall FloodVENT [®]	1540-570	14" X 8 ³ / ₄ "	200
Wood Wall FloodVENT [®] Overhead Door	1540-574	14" X 8 ³ / ₄ "	200
SmartVENT [®] Stacker	1540-511	16" X 16"	400
FloodVent [®] Stacker	1540-521	16" X 16"	400

For SI: 1 inch = 25.4 mm; 1 square foot = m²

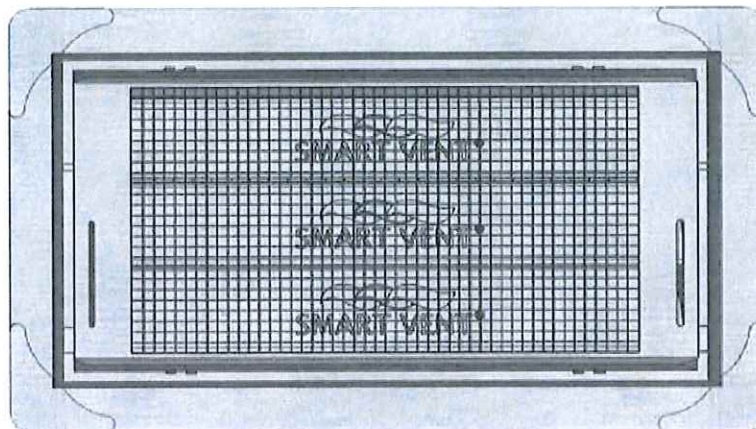


FIGURE 1—SMART VENT: MODEL 1540-510

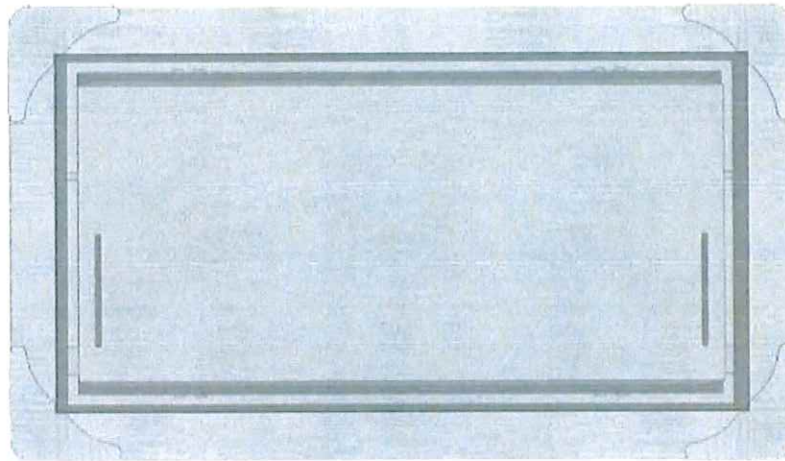


FIGURE 2—SMART VENT MODEL 1540-520

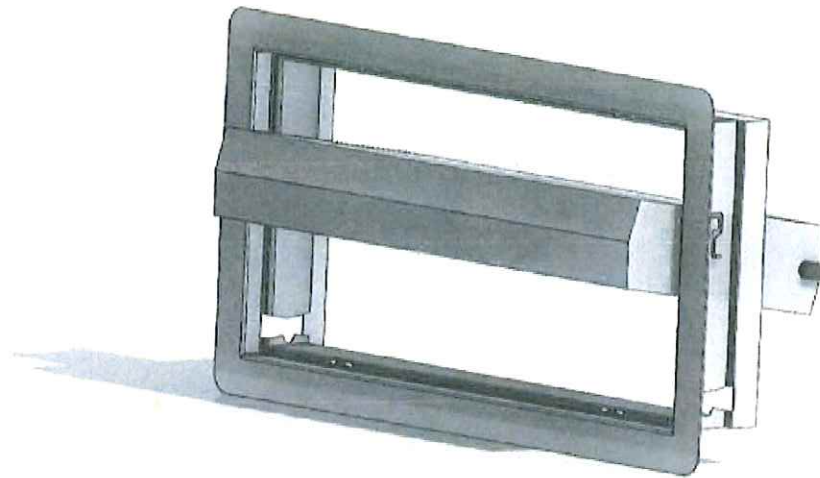


FIGURE 3—SMART VENT: SHOWN WITH FLOOD DOOR PIVOTED OPEN

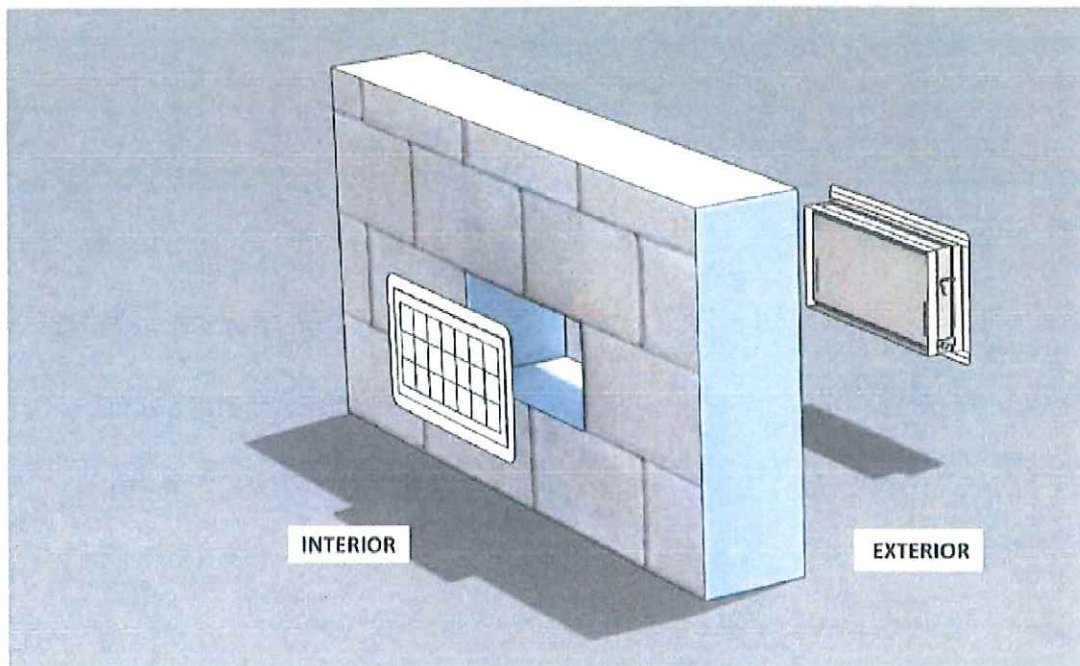


FIGURE 4—FLOOD VENT SEALING KIT

DIVISION: 08 00 00—OPENINGS
Section: 08 95 43—Vents/Foundation Flood Vents

REPORT HOLDER:

SMART VENT PRODUCTS, INC.

EVALUATION SUBJECT:

SMART VENT® AUTOMATIC FOUNDATION FLOOD VENTS: MODELS #1540-520; #1540-521; #1540-510; #1540-511; #1540-570; #1540-574; #1540-524; #1540-514
FLOOD VENT SEALING KIT #1540-526

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that Smart Vent® Automatic Foundation Flood Vents, described in ICC-ES evaluation report ESR-2074, have also been evaluated for compliance with codes noted below.

Applicable code editions:

- 2019 *California Building Code (CBC)*

For evaluation of applicable chapters adopted by the California Office of Statewide Health Planning and Development (OSHPD) and Division of State Architect (DSA), see Sections 2.1.1 and 2.1.2 below.

- 2019 *California Residential Code (CRC)*

2.0 CONCLUSIONS

2.1 CBC:

The Smart Vent® Automatic Foundation Flood Vents, described in Sections 2.0 through 7.0 of the evaluation report ESR-2074, comply with 2019 CBC Chapter 12, provided the design and installation are in accordance with the 2018 *International Building Code*® (IBC) provisions noted in the evaluation report and the additional requirements of CBC Chapters 12 and 16, as applicable.

2.1.1 OSHPD:

The applicable OSHPD Sections and Chapters of the CBC are beyond the scope of this supplement.

2.1.2 DSA:

The applicable DSA Sections and Chapters of the CBC are beyond the scope of this supplement.

2.2 CRC:

The Smart Vent® Automatic Foundation Flood Vents, described in Sections 2.0 through 7.0 of the evaluation report ESR-2074, comply with the 2019 CRC, provided the design and installation are in accordance with the 2018 *International Residential Code*® (IRC) provisions noted in the evaluation report.

This supplement expires concurrently with the evaluation report, reissued February 2021 and revised April 2021.

DIVISION: 08 00 00—OPENINGS
Section: 08 95 43—Vents/Foundation Flood Vents

REPORT HOLDER:

SMART VENT PRODUCTS, INC.

EVALUATION SUBJECT:

SMART VENT® AUTOMATIC FOUNDATION FLOOD VENTS: MODELS #1540-520; #1540-521; #1540-510; #1540-511;
#1540-570; #1540-574; #1540-524; #1540-514
FLOOD VENT SEALING KIT #1540-526

1.0 REPORT PURPOSE AND SCOPE**Purpose:**

The purpose of this evaluation report supplement is to indicate that Smart Vent® Automatic Foundation Flood Vents, described in ICC-ES evaluation report ESR-2074, have also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2020 Florida Building Code—Building
- 2020 Florida Building Code—Residential

2.0 CONCLUSIONS

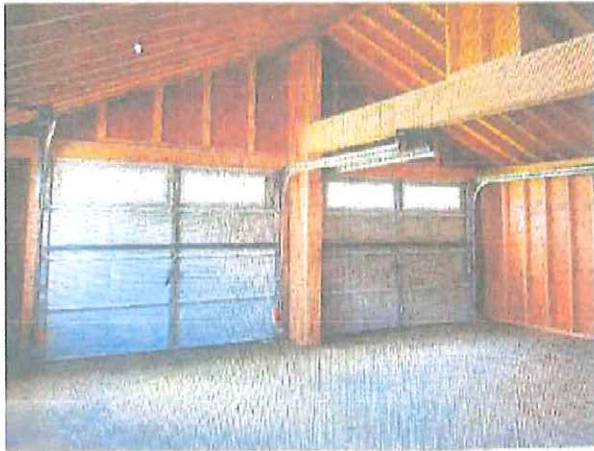
The Smart Vent® Automatic Foundation Flood Vents, described in Sections 2.0 through 7.0 of the evaluation report ESR-2074, comply with the *Florida Building Code—Building* and the *Florida Building Code-Residential*, provided the design requirements are determined in accordance with the *Florida Building Code-Building* or the *Florida Building Code-Residential*, as applicable. The installation requirements noted in ICC-ES evaluation report ESR-2074 for 2018 *International Building Code*® meet the requirements of the *Florida Building Code-Building* or the *Florida Building Code-Residential*, as applicable.

Use of the Smart Vent® Automatic Foundation Flood Vents has also been found to be in compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code—Building* and the *Florida Building Code—Residential*.

For products falling under Florida Rule 61G20-3, verification that the report holder's quality assurance program is audited by a quality assurance entity approved by the Florida Building Commission for the type of inspections being conducted is the responsibility of an approved validation entity (or the code official when the report holder does not possess an approval by the Commission).

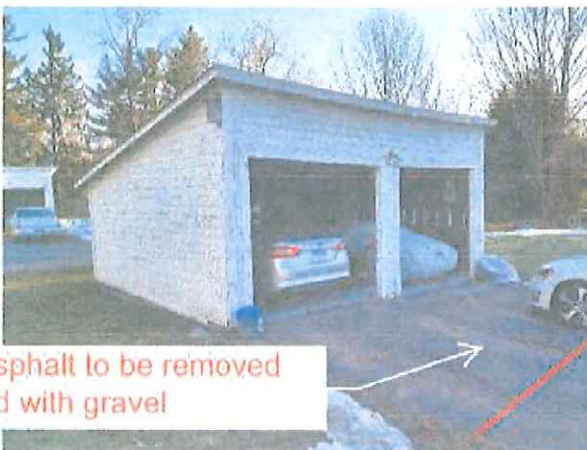
This supplement expires concurrently with the evaluation report, reissued February 2021 and revised April 2021.







Portion of Asphalt to be removed and replaced with gravel



Portion of Asphalt to be removed and replaced with gravel



Loose Single Course of CMU to be removed



Main Supporting Post and Sill Plate not attached to CMU. Structure "moved" 1 inch in 3 months



Main Supporting Beam not attached to central post and rotating over time. Central Post has no footing.

