DEPARTMENT OF BUILDING SAFETY
&
FLOOD PLAIN MANAGEMENT

VENTNOR CITY, N.J. 08406

VENTNOR CITY HALL
6201 ATLANTIC AVENUE
ROOM 4
823-7987
823-7966 FAX

Memo of Review For Correctness and Completion

The attached FEMA Elevation Certificate has been reviewed by this office.
The items noted below are not correct on the attached form and should read as entered on this page.

SECTION A - PROPERTY INFORMATION

For Insurance Company Use:
Policy Number
Company NAIC Number

A1. Building Owner's Name: Kleiner

A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.: 910 N. Harvard

City: Ventnor State: NJ. ZIP Code: 08406

A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.): 317 | 20-01

A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) _____

A5. Latitude/Longitude: Lat. _____ Long. _____ Horizontal Datum: ☐ NAD 1927 ☐ NAD 1983

A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.

A7. Building Diagram Number 6

A8. For a building with a crawlspace or enclosure(s):
- a) Square footage of crawlspace or enclosure(s): 1,419 sq ft
- b) No. of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade: 4
- c) Total net area of flood openings in A8.b: 5,500 sq in
- d) Engineered flood openings? ☒ Yes ☐ No

A9. For a building with an attached garage:
- a) Square footage of attached garage: 0 sq ft
- b) No. of permanent flood openings in the attached garage within 1.0 foot above adjacent grade: 0
- c) Total net area of flood openings in A9.b: 0 sq in
- d) Engineered flood openings? ☐ Yes ☒ No

SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1. NFIP Community Name & Community Number	B2. County Name	B3. State
Ventnor 345326	Atlantic	New Jersey

B4. Map/Panel Number	B5. Suffix	B6. FIRM Index Date	B7. FIRM Panel Effective/Revised Date	B8. Flood Zone(s)	B9. Base Flood Elevation(s) (Zone AO, use base flood depth)
345326 | 0001	B	6|18|1971	9|15|1983	A-8	10

B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9.
☐ FIS Profile ☒ FIRM ☐ Community Determined ☐ Other (Describe) _____

B11. Indicate elevation datum used for BFE in Item B9: ☒ NGVD 1929 ☐ NAVD 1988 ☐ Other (Describe) _____

B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? ☐ Yes ☒ No
Designation Date _____ ☐ CBRS ☐ OPA

Local Official's Name: Dino Cavalieri Title: C.F.M.

Community Name: Ventnor Telephone: 609 823-7987

Signature: [signature] Date: 2-3-2020

Comments

U.S. DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency
National Flood Insurance Program

OMB No. 1660-0008
Expiration Date: November 30, 2018

ELEVATION CERTIFICATE

Important: Follow the instructions on pages 1–9.

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

SECTION A – PROPERTY INFORMATION		FOR INSURANCE COMPANY USE
A1. Building Owner's Name KLEINER		Policy Number:
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 910 NORTH HARVARD AVENUE		Company NAIC Number:
City VENTNOR	State New Jersey	ZIP Code 08406

A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)
BLOCK 317 LOT 20.01

A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) RESIDENTIAL

A5. Latitude/Longitude: Lat. 39.35'11.33" Long. 74.49'04.17" Horizontal Datum: ☐ NAD 1927 ☒ NAD 1983

A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.

A7. Building Diagram Number 6

A8. For a building with a crawlspace or enclosure(s):

a) Square footage of crawlspace or enclosure(s) n/a sq ft DJP

b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade n/a DJP

c) Total net area of flood openings in A8.b n/a sq in DJP

d) Engineered flood openings? ☐ Yes ☑ No

A9. For a building with an attached garage:

a) Square footage of attached garage 1,419 sq ft

b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade 4

c) Total net area of flood openings in A9.b 5,500 sq in

d) Engineered flood openings? ☒ Yes ☐ No

SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1. NFIP Community Name & Community Number	B2. County Name	B3. State
VENTNOR 345326	ATLANTIC	New Jersey

B4. Map/Panel Number	B5. Suffix	B6. FIRM Index Date	B7. FIRM Panel Effective/ Revised Date	B8. Flood Zone(s)	B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth)
345326/0001	B	06/18/1971	09/15/1983	A-8	10.00'

B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9:
☐ FIS Profile ☒ FIRM ☐ Community Determined ☐ Other/Source: _____

B11. Indicate elevation datum used for BFE in Item B9: ☒ NGVD 1929 ☐ NAVD 1988 ☐ Other/Source: _____

B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? ☐ Yes ☒ No
Designation Date: _____ ☐ CBRS ☐ OPA

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expiration Date: November 30, 2018

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 910 NORTH HARVARD AVENUE			Policy Number:
City VENTNOR	State New Jersey	ZIP Code 08406	Company NAIC Number

SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

C1. Building elevations are based on: ☐ Construction Drawings* ☐ Building Under Construction* ☒ Finished Construction

*A new Elevation Certificate will be required when construction of the building is complete.

C2. Elevations – Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO. Complete Items C2.a–h below according to the building diagram specified in Item A7. In Puerto Rico only, enter meters.

Benchmark Utilized: RM-3 Vertical Datum: NGVD 1929

Indicate elevation datum used for the elevations in items a) through h) below.

☒ NGVD 1929 ☐ NAVD 1988 ☐ Other/Source: _____

Datum used for building elevations must be the same as that used for the BFE.

		Check the measurement used.
a) Top of bottom floor (including basement, crawlspace, or enclosure floor)	8.81	☒ feet ☐ meters
b) Top of the next higher floor	17.73	☒ feet ☐ meters
c) Bottom of the lowest horizontal structural member (V Zones only)	15.80	☒ feet ☐ meters
d) Attached garage (top of slab)	8.81	☒ feet ☐ meters
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)	14.19	☒ feet ☐ meters
f) Lowest adjacent (finished) grade next to building (LAG)	7.28	☒ feet ☐ meters
g) Highest adjacent (finished) grade next to building (HAG)	8.87	☒ feet ☐ meters
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support	7.69	☒ feet ☐ meters

SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. *I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.*

Were latitude and longitude in Section A provided by a licensed land surveyor? ☒ Yes ☐ No ☒ Check here if attachments.

Certifier's Name DANIEL J. PONZIO, SR.	License Number GS37603	Place Seal Here
Title PROFESSIONAL LAND SURVEYOR		
Company Name ARTHUR W. PONZIO CO. & ASSOC., INC.		
Address 400 NORTH DOVER AVENUE		
City ATLANTIC CITY	State New Jersey	ZIP Code 08401
Signature	Date 09/27/2019	Telephone (609) 344-8194

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

Comments (including type of equipment and location, per C2(e), if applicable)

PROJECT # 33560
ENTRANCE FOYER = 9.58'
Heater = 17.73' Air Condenser = 14.19' Duct = 15.31'
FLOOD VENTS ARE CRAWL SPACE DOOR SYSTEMS MODEL 2436CS (3 UNITS) AND 816CS (1 UNIT)

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expiration Date: November 30, 2018

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (Including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 910 NORTH HARVARD AVENUE			Policy Number:
City VENTNOR	State New Jersey	ZIP Code 08406	Company NAIC Number

SECTION E – BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)

For Zones AO and A (without BFE), complete Items E1–E5. If the Certificate is intended to support a LOMA or LOMR-F request, complete Sections A, B, and C. For Items E1–E4, use natural grade, if available. Check the measurement used. In Puerto Rico only, enter meters.

E1. Provide elevation information for the following and check the appropriate boxes to show whether the elevation is above or below the highest adjacent grade (HAG) and the lowest adjacent grade (LAG).

a) Top of bottom floor (including basement, crawlspace, or enclosure) is _____ . _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

b) Top of bottom floor (including basement, crawlspace, or enclosure) is _____ . _____ ☐ feet ☐ meters ☐ above or ☐ below the LAG.

E2. For Building Diagrams 6–9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 1–2 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is _____ . _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E3. Attached garage (top of slab) is _____ . _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E4. Top of platform of machinery and/or equipment servicing the building is _____ . _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E5. Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance? ☐ Yes ☐ No ☐ Unknown. The local official must certify this information in Section G.

SECTION F – PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, and E for Zone A (without a FEMA-issued or community-issued BFE) or Zone AO must sign here. The statements in Sections A, B, and E are correct to the best of my knowledge.

Property Owner or Owner's Authorized Representative's Name

Address	City	State	ZIP Code

Signature	Date	Telephone

Comments

☐ Check here if attachments.

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expiration Date: November 30, 2018

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 910 NORTH HARVARD AVENUE			Policy Number:
City VENTNOR	State New Jersey	ZIP Code 08406	Company NAIC Number

SECTION G – COMMUNITY INFORMATION (OPTIONAL)

The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. Complete the applicable item(s) and sign below. Check the measurement used in Items G8–G10. In Puerto Rico only, enter meters.

G1. ☐ The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)

G2. ☐ A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.

G3. ☐ The following information (Items G4–G10) is provided for community floodplain management purposes.

G4. Permit Number	G5. Date Permit Issued	G6. Date Certificate of Compliance/Occupancy Issued

G7. This permit has been issued for: ☐ New Construction ☐ Substantial Improvement

G8. Elevation of as-built lowest floor (including basement) of the building: _____.____ ☐ feet ☐ meters Datum _____

G9. BFE or (in Zone AO) depth of flooding at the building site: _____.____ ☐ feet ☐ meters Datum _____

G10. Community's design flood elevation: _____.____ ☐ feet ☐ meters Datum _____

Local Official's Name	Title
Dino Cavalieri	C.F.M.
Community Name	**Telephone**
Ventnor	609 823-7987
Signature	**Date**
	10-11-19

Comments (including type of equipment and location, per C2(e), if applicable)

☐ Check here if attachments.

BUILDING PHOTOGRAPHS

ELEVATION CERTIFICATE

See Instructions for Item A6.

OMB No. 1660-0008
Expiration Date: November 30, 2018

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 910 NORTH HARVARD AVENUE			Policy Number:
City VENTNOR	State New Jersey	ZIP Code 08406	Company NAIC Number

If using the Elevation Certificate to obtain NFIP flood insurance, affix at least 2 building photographs below according to the Instructions for Item A6. Identify all photographs with date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8. If submitting more photographs than will fit on this page, use the Continuation Page.

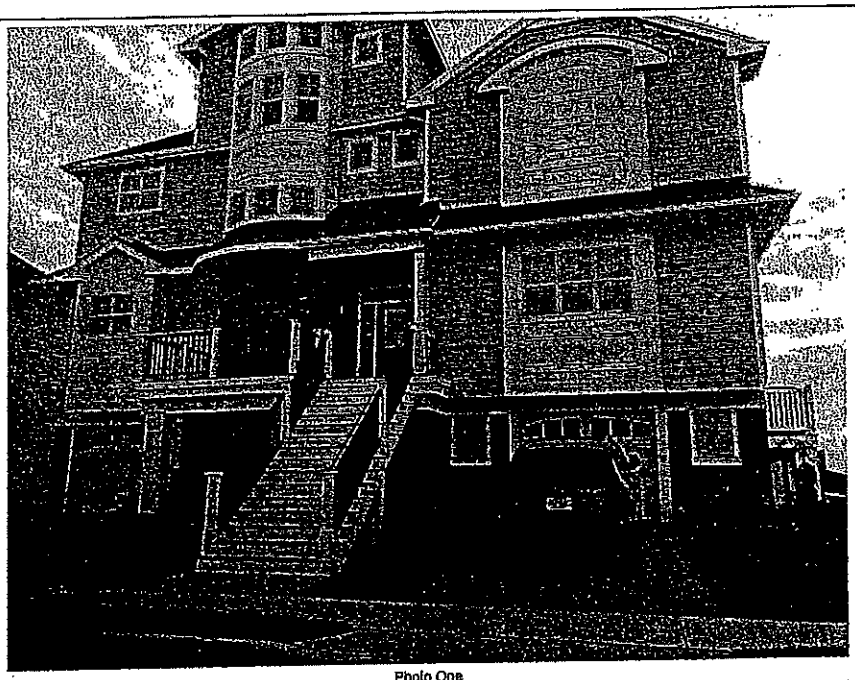


Photo One

Photo One Caption FRONT 09/27/2019

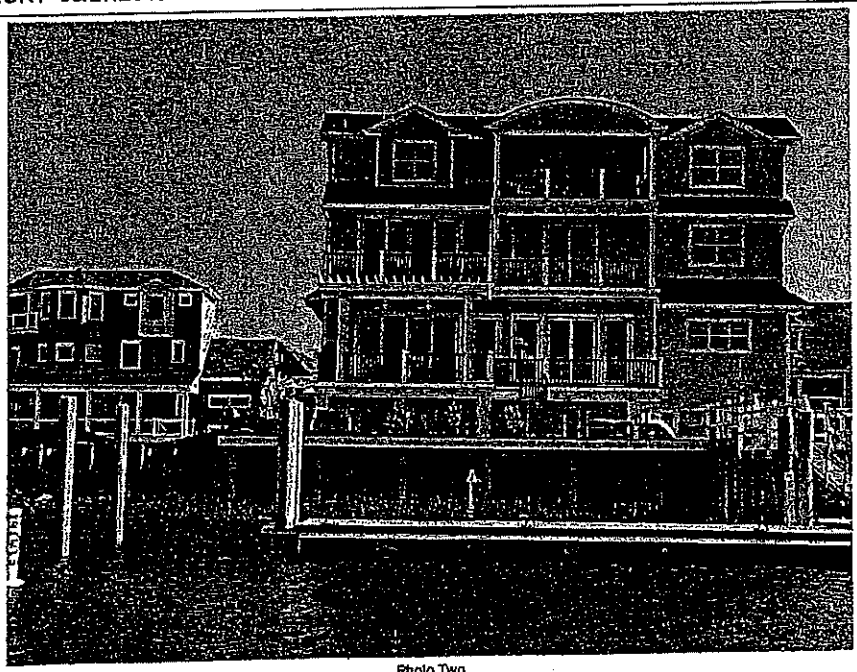


Photo Two

Photo Two Caption REAR 09/27/2019

BUILDING PHOTOGRAPHS

ELEVATION CERTIFICATE

Continuation Page

OMB No. 1660-0008
Expiration Date: November 30, 2018

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 910 NORTH HARVARD AVENUE			Policy Number:
City VENTNOR	State New Jersey	ZIP Code 08406	Company NAIC Number

If submitting more photographs than will fit on the preceding page, affix the additional photographs below. Identify all photographs with: date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8.

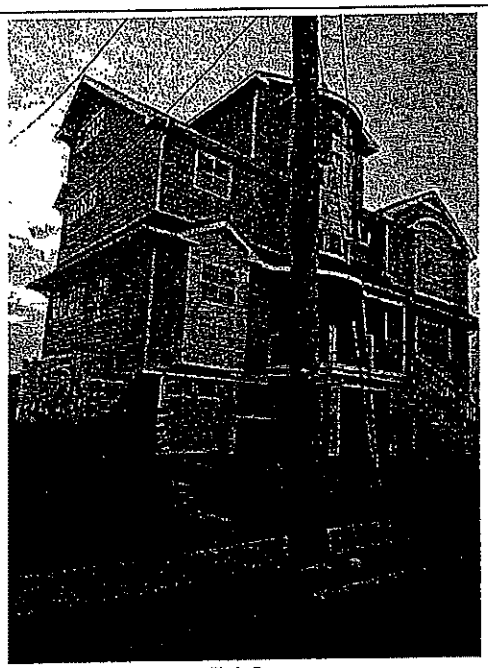


Photo One

Photo One Caption LEFT SIDE 09/27/2019

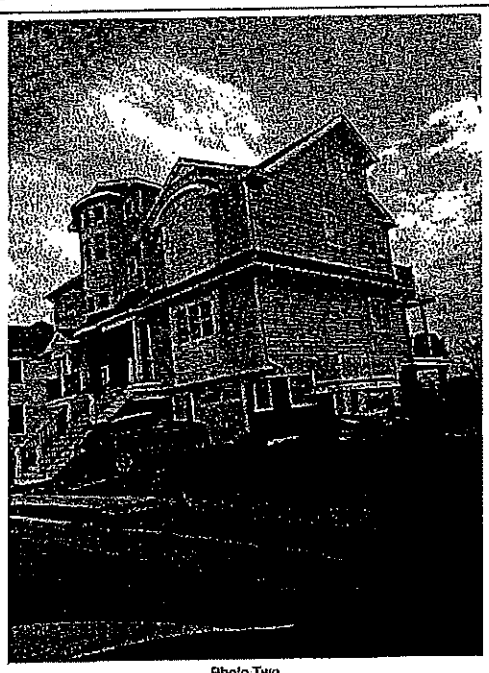


Photo Two

Photo Two Caption RIGHT SIDE 09/27/2019

No Rust or Rot Crawlspace Door/Air Vent for Homes (New Construction & Replacement)

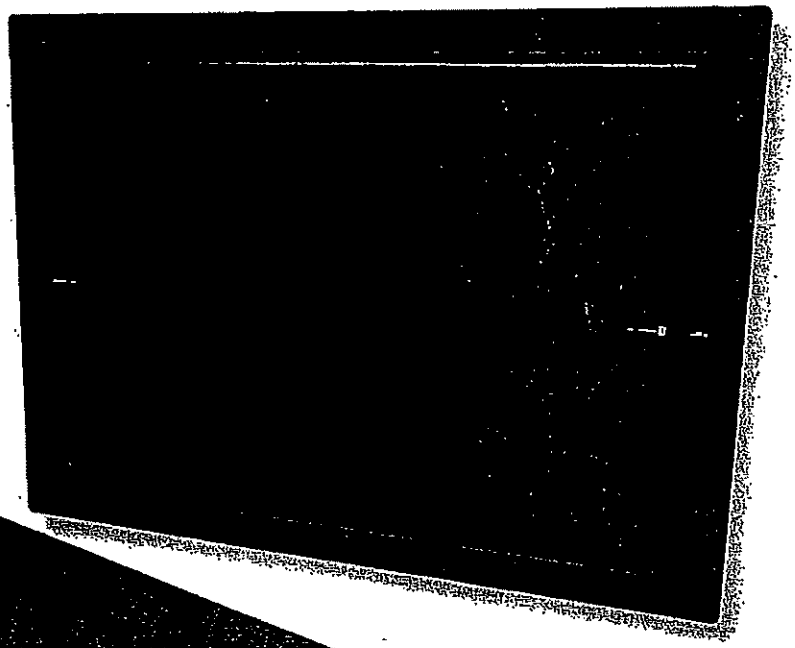
Easy Access • Modular Use • Can Be Painted

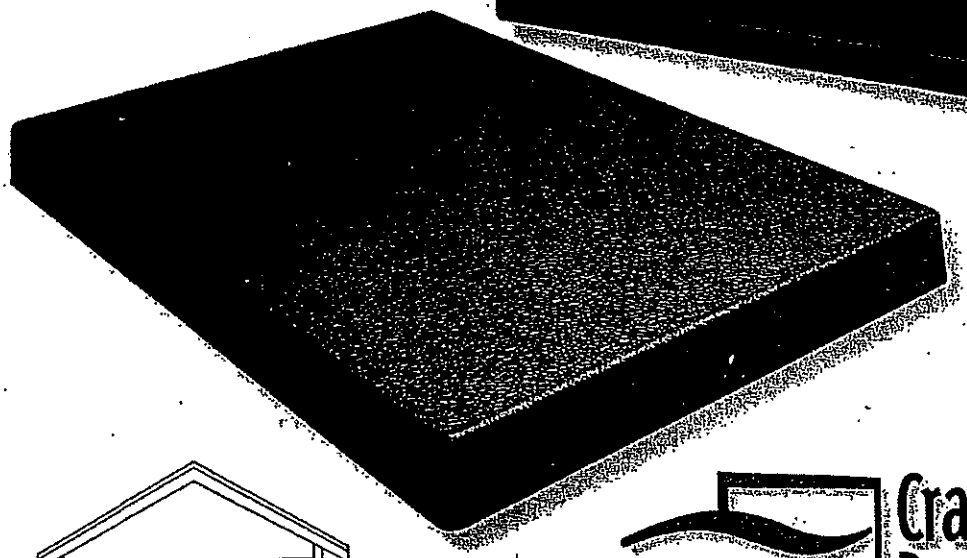
	MODEL	HxW (in)	Net Area (in^2)
☐	816CS	8 X 16	105
☐	1220CS	12 X 20	235
☐	1232CS	12 X 32	305
☐	1616CS	16 X 16	180
☐	1624CS	16 X 24	310
☐	1632CS	16 X 32	405
☐	2032CS	20 X 32	630
☐	2424CS	24 X 24	570
☐	2436CS	24 X 36	850

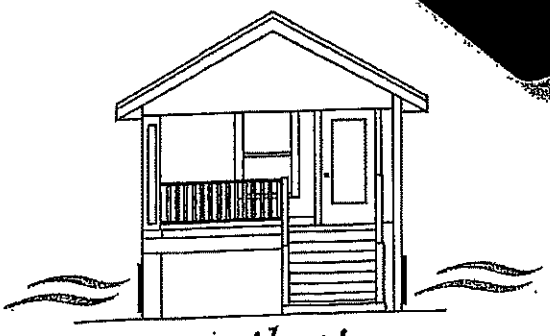
Crawlspace Doors & Vents
Crawlspace Louvers/Screens

Standard Door/Air Vent

Great for new construction and remodeling.
One-piece doorplate with easy to insert vermin screen, fixed louver and door lid. Made of durable PVC/ABS plastic (no rust or rot) with a UV retardant treatment. Quick and easy to install.







ventilation

Crawl Space Door Systems®
INCORPORATED

3700 Shore Drive, Suite 101
Virginia Beach, VA 23455
757.363.0005 | 1.800.230.9598
www.crawlspacedoors.com

Certification of Engineered Flood Openings

In accordance with NFIP, FEMA TB 1-08, and ASCE/SEI 24-05

I hereby certify that the **Crawl Space Door Systems flood vents 816CS, 1220CS, 1232CS, 1616CS, 1624CS, 1632CS, 2032CS, 2424CS, and 2436CS are designed** in accordance with the requirements of the NFIP "Flood Insurance Manual" (2011) **to provide automatic equalization of hydrostatic flood forces by allowing for the entry and exit of floodwaters,** when properly installed and sized as set forth below. This certification follows the design requirements and specifications established in FEMA Technical Bulletin 1-08, "Openings in Foundation Walls and Walls of Enclosures Below Elevated Buildings in Special Flood Hazard Areas", and the ASCE Standard for "Flood Resistant Design and Construction" (ASCE/SEI 24-05).

Design Characteristics

Section 2.6.2.2 of ASCE 24 provides an equation to determine the required net area of engineered openings (A_o) for a given enclosed area (A_e). This equation is based on the hydraulic formula for the flow rate across sharp edged orifices. I have utilized this equation to calculate 1) the respected flow rate through the individual openings between louvers; 2) the flow rate through the main frame opening in case the louver is blown out during a flood event; and 3) the flow rate of water flowing through louver blades following hydraulic short tube theory. The ultimate maximum total enclosed area (A_e) that can be serviced by a single vent has then been determined by utilizing the lowest flow rate of the three assessed scenarios for each vent and is listed in Table 1.

These values are based on the following assumptions:

- In absence of reliable data, the rates of rise and fall have been assumed with 5 feet/hour;
- The (maximum) difference between the exterior and interior floodwater levels has been assumed with 1 foot during base flood conditions;
- A factor of safety of 5 has been assumed, which is consistent with design practices related to protection of life and property;
- The net area of openings (A_o) as provided by the manufacturer.

*)	Model	H x W [in]	A_o [in^2]	A_e [ft^2]
☐	816CS	8 x 16	105	205
☐	1220CS	12 x 20	235	500
☐	1232CS	12 x 32	305	645
☐	1616CS	16 x 16	180	395
☐	1624CS	16 x 24	310	670
☐	1632CS	16 x 32	405	835
☐	2032CS	20 x 32	630	1240
☐	2424CS	24 x 24	570	1230
☐	2436CS	24 x 36	850	1765

Table 1 Maximal total enclosed area (A_e) that can be served by each individual model based on the given net area of engineered openings (A_o)

Installation Requirements and Limitations

This certification will be voided if the following installation requirements and limitations are not enforced:

- There shall be a minimum of two openings on different sides of each enclosed area;
- The bottom of each required opening shall be no more than 1ft above the adjacent ground level;
- No temporary (e.g. during cold weather) or permanent solid cover may be placed into or over the flood vent that would block the automatic entry or exit of floodwaters at any time;
- Where analysis indicates rates of rise and fall greater than 5 ft/hr, the total enclosed area as given in Table 1 shall be reduced accordingly to account for the higher rates of rise and fall.

Identification of the Building and Installed Flood Vents

The flood vent models marked in Table 1*) are being installed at the following building:

Building Address

Certifying Design Professional

Name **WILLIAM S. SWIDERSKI, P.E.**

Title **ENGINEER**

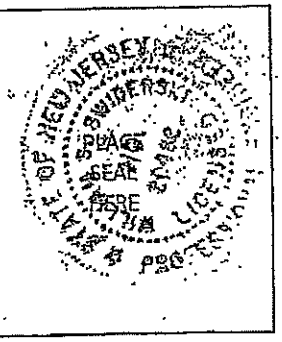
Address **599 SHORE ROAD, SOMERS POINT, NJ 08244**

Type of License **PROFESSIONAL ENGINEER**

License # **20482**

Issuing State **NEW JERSEY**

Signature 7/24/12



Note: The V Zone design certificate is not a substitute for the NFIP Elevation Certificate (see Fact Sheet No. 1.4, *Lowest Floor Elevation*), which is required to certify as-built elevations needed for flood insurance rating.

V ZONE DESIGN CERTIFICATE

Name Peter Kleiner Policy Number (Insurance Co. Use)

Building Address of Other Description 910 N. Harvard Avenue B 317 / L 2.01

Permit No. City Ventnor City State NJ Zip Code 08406

SECTION I: Flood Insurance Rate Map (FIRM) Information

Community No. 345326 Panel No. 345326/0001 Suffix FIRM Date B 9/83 FIRM Zone(s) A-8

SECTION II: Elevation Information Used for Design

[NOTE: This section documents the elevations/depths used or specified in the design – it does not document surveyed elevations and is not equivalent to the as-built elevations required to be submitted during or after construction.]

1.	FIRM Base Flood Elevation (BFE)	10 feet*
2.	Community's Design Flood Elevation (DFE)	13 feet*
3.	Elevation of the Bottom of Lowest Horizontal Structure Member	15.3 feet*
4.	Elevation of Lowest Adjacent Grade	8.1 feet*
5.	Depth of Anticipated Scour/Erosion used for Foundation Design	1 feet
6.	Embedment Depth of Pilings of Foundation Below Lowest Adjacent Grade	30 feet

* Indicate elevation datum used in 1-4: ☒ NGVD29 ☐ NAVD88 ☐ Other

SECTION III: V Zone Design Certification Statement

I certify that: (1) I have developed or reviewed the structural design, plans, and specifications for construction of the above-referenced building and (2) that the design and methods of construction specified to be used are in accordance with accepted standards of practice** for meeting the following provisions:

- The bottom of the lowest horizontal structural member of the lowest floor (excluding piles and columns) is elevated to or above the BFE.
- The pile and column foundation and structure attached thereto is anchored to resist flotation, collapse, and lateral movement due to the effects of the wind and water loads acting simultaneously on all building components. Water loading values used are those associated with the base flood***. Wind loading values used are those required by the applicable State or local building code. The potential for scour and erosion at the foundation has been anticipated for conditions associated with the base flood, including wave action.

SECTION IV: Breakaway Wall Design Certification Statement

[NOTE. This section must be certified by a registered engineer or architect when breakaway walls are designed to have a resistance of more than 20 psf (0.96 kN/m2) determined using allowable stress design]

I certify that: (1) I have developed or reviewed the structural design, plans, and specifications for construction of breakaway walls to be constructed under the above-referenced building and (2) that the design and methods of construction specified to be used are in accordance with accepted standards of practice** for meeting the following provisions:

- Breakaway wall collapse shall result from a water load less than that which would occur during the base flood***.
- The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components (see Section III).

SECTION V: Certification and Seal

This certification is to be signed and sealed by a registered professional engineer or architect authorized by law to certify structural designs. I certify the V Zone Design Certification Statement (Section III) and IV the Breakaway Wall Design Certification Statement (Section IV, check if applicable).

Place Seal Here

Certifier's Name Peter C. Weiss License Number AI 10004

Title Owner Company Name Peter C. Weiss RA LLC

Address 101 N. Washington Avenue, Suite 8

City Margate City State NJ Zip Code 08402

Signature Date 10/10/19 Telephone 609-822-9616