

VIRGINIA:

BEFORE THE
STATE BUILDING CODE TECHNICAL REVIEW BOARD

IN RE: Appeal of Monica and Michael Davis
Appeal No. 22-02

DECISION OF THE REVIEW BOARD

I. Procedural Background

The State Building Code Technical Review Board (Review Board) is a Governor-appointed board established to rule on disputes arising from application of regulations of the Department of Housing and Community Development. See §§ 36-108 and 36-114 of the Code of Virginia. The Review Board's proceedings are governed by the Virginia Administrative Process Act (§ 2.2-4000 et seq. of the Code of Virginia).

II. Case History

On March 27, 2020, the County of Augusta Department of Community Development (County Building Official), the agency responsible for the enforcement of Part 1 of the 2012 Virginia Uniform Statewide Building Code (Virginia Construction Code or VCC), issued the Certificate of Occupancy to Monica and Michael Davis (Davis), for a single-family dwelling located at 1002 Round Hill School Road, in Augusta County.

Shortly after moving into their new home, Davis contacted the County Building Official requesting he come inspect a variety of issues and concerns they had with their home, attached garage, and detached garage.

In June and July of 2020, the County Building Official visited the Davis property several times investigating the issues brought forth by Davis. During one or more of these inspections, the County Building Official found several violations. On July 16, 2020, the County Building

Official issued a letter to Hendricks and Son General Contractor, LLC citing seventeen (17) code violations.

In September of 2020, Schnitzhofer Structural Engineers visited the Davis home to evaluate the residence with attached garage and detached garage related to the cited violations in the July 16, 2020 letter from the County Building Official. Schnitzhofer Structural Engineers drafted a letter dated November 3, 2020, which was received by Augusta County on November 9, 2020. The Schnitzhofer Structural Engineers letter was reviewed and accepted by the County Building Official.

Davis filed a timely appeal to the Augusta County Board of Building Code Appeals (local appeals board) for the acceptance and approval of the Schnitzhofer Structural Engineers letter. Davis further appealed to the local appeals board to consider the proposal report from Engineer Solutions and require the builder to approach the cited violations with the suggested analysis process set forth in that report. The local appeals board upheld the decisions of the County Building Official finding that the Schnitzhofer Structural Engineers report was a valid engineering report for the Davis' structure. On February 1, 2021, Davis further appealed to the Review Board. These issues were presented to the Review Board for consideration at the May 21, 2021 Review Board meeting in Appeal No. 21-02. The Review Board considered and approved the final order for Appeal No. 21-02 on September 17, 2021.

Pursuant to the local appeals board decision, as a result of a conversation by the legal counsels for the Davis', builder, and County Building Official a letter by the Davis' attorney, dated August 5, 2021, was sent to the parties requesting a way forward to correct the issues with the project. Item #2 of the letter proposed the County Building Official visit the site and make a determination for compliance of 14 potential code violations. The inspection was performed on

September 2, 2021. The County Building Official provided the findings to all legal counsels via a report dated September 7, 2021.

Davis filed a timely appeal to the local appeals board for the following nine (9) potential violations:

Note: The alphabetical identification of the cited violations listed below is not in sequential order, rather is given the same alphabetical identification listed in the County Building Official report dated September 7, 2021 (report). The report cited 14 potential violations lettered a-n; however six of the cited violations listed in the report were not appealed. The remaining nine cited violations in the report that were appealed create the non-sequential list found below.

- a) Air barrier behind the tub/shower; owner cited potential code sections VCC N1102.4.1.1 (R402.4.1.1) Installation (Mandatory) and VCC N1101.13 (R303.2) Installation
- c) Sill plate and floor joist cut for plumbing; owner cited potential code sections VCC R502.8 Cutting, drilling, notching and VCC R502.8.1 Sawn lumber
- f) Interior receptacles have locations that exceed code requirements for receptacle placement; owner cited potential code section VCC E3901.2 General purpose receptacle distribution
- g) HVAC return duct too small; owner cited potential code section VCC M1401.1 Installation
- h) HVAC air handler hung from the floor joist; load values not taken into account for additional weight on the joists; owner cited potential code section VCC R502.8 Cutting, drilling, notching and VCC M1401.1 Installation
- i) Refrigerant piping not sleeved; owner cited potential code section VCC N1103.3.1(R403.3.1) Protection of piping insulation
- j) Mini split drain leaking in the attic; owner cited potential code section VCC M1412.3 Insulation of piping
- k) Electrical HVAC disconnect not mounted above the average snow level; owner cited potential code section VCC M1401.1 Installation
- m) HVAC mini split does not meet heating and cooling requirements for the bonus room space; owner cited potential code section VCC N1101.11(R302.1) Interior design conditions

The local appeals board denied the appeal on January 10, 2022. Davis further appealed to the Review Board on January 24, 2022.

A Review Board hearing was held May 20, 2022. Appearing at the Review Board hearing for Augusta County was G. W. Wiseman. Monica and Michael Davis attended the hearing on their behalf.

III. Findings of the Review Board

Note: The correlation of the alphabetical identification assigned in the potential violations listed above, which are in accordance with the County Building Official’s letter dated September 7, 2021, and the alphabetical identification assigned in the Findings of the Review Board and Final Order sections of this written decision, which are in accordance with typical formatting procedures for Review Board Final Orders, are shown in the chart below:

Potential Violations in accordance with the County Building Official’s letter dated September 7, 2021 as listed above	Findings of the Review Board and Final Order sections in accordance with typical formatting procedures for Review Board Final Orders as listed below
a)	A
c)	B
f)	C
g)	D
h)	E
i)	F
j)	G
k)	H
m)	I

A. Whether to uphold the decision of the County Building Official and the local appeals board that a violation of the VCC Sections N1102.4.1.1 (R402.4.1.1) Installation (Mandatory) and VCC N1101.13 (R303.2) Installation does not exist.

Davis argued that the kraft faced batt insulation installed behind the shower was not code compliant as the required air barrier.

The County argued that the 2012 VCC was silent on what constituted an air barrier. The County further argued that the determination of what constituted an air barrier was subject to the opinion of the building official and the County deemed the installation of kraft faced batt insulation, installed in accordance with the manufacturer’s installation instructions, to be an

adequate air barrier. The County also argued that based on the timeline of the Davis' inquiry and his response, he believed the appeal of this potential violation to be untimely.

The Review Board agrees with the County Building Official and local appeals board and finds that a violation of VCC Sections N1102.4.1.1 (R402.4.1.1) Installation (Mandatory) and VCC N1101.13 (R303.2) Installation does not exist.

B. Whether to uphold the decision of the County Building Official and the local appeals board that a violation of the VCC Sections R502.8 Cutting, drilling, notching and VCC R502.8.1 Sawn lumber does not exist.

Davis argued that structural floor joists were drilled within 2" of the edge of the joist for plumbing lines. Davis also argued that structural floor joist was gouged vertically in excess of ¾ of the way through the joist for plumbing drain line.

The County argued that the gouged joist for the plumbing drain line, described by Davis, was a fully supported band joist and not in violation. The County also argued that the drilling of the floor joist was not addressed during the inspection and was first presented at the local appeals board.

The Review Board agrees with the County Building Official and local appeals board and finds that a violation of the VCC Sections R502.8 Cutting, drilling, notching and VCC R502.8.1 Sawn lumber does not exist as the gouging, described by Davis, was on a fully supported band joist and the drilling within 2" of the edge of the joist for plumbing lines was not properly before the Board.

C. Whether to uphold the decision of the County Building Official and the local appeals board that a violation of the VCC Section E3901.2 General purpose receptacle distribution does not exist.

Davis argued that the code required a wall receptacle be installed within 6' of a doorway in the bonus room over the garage. Davis also argued that they had several walls that were over two feet in length in their bathrooms with no receptacles installed.

The County argued that the wall receptacle spacing requirement was not 6' as argued by Davis in the local appeals board hearing. The County argued that the required spacing in the code for wall receptacles was 12' and that all receptacles in the Davis home more than met the 12' spacing requirement. The County also argued that receptacles in bathrooms were not required to meet the 12' spacing requirement and that the receptacles installed in the bathrooms were compliant.

During testimony the County acknowledged that if the evidence provided by Davis in the agenda package on page 264 was accurate, a receptacle may be required in the bonus room over the garage to meet the 6' from the doorway requirement.

The Review Board disagrees with the County Building Official and local appeals board and finds that a violation of the VCC Section E3901.2 General purpose receptacle distribution does exist in the bonus room over the garage. The Review Board agrees with the County Building Official and local appeals board and finds that a violation of the VCC Section E3901.2 General purpose receptacle distribution does not exist in the bathrooms.

D. Whether to uphold the decision of the County Building Official and the local appeals board that a violation of the VCC Section M1401.1 Installation does not exist.

Davis argued that the Manual J calculations were provided to the County approximately 15 months after the issuance of the CO which clearly showed that the County did not have the needed documentation for the HVAC system when it was approved. Davis also argued that the Manual J calculations contained several errors and/or misrepresentations related to the construction and/or installation of the system. Davis further argued that the HVAC system failed

the static pressure test as well as the performance test for required air exchanges per hour. Finally, Davis argued that the size of the duct system was inadequate as the return grill was approximately 21" X 21" while the return duct was only 8" X 8".

The County argued that the HVAC Manual S and J indicated that the system was sized properly which included the duct system. The County further argued that return grills are always larger than the return duct due to the restrictions imposed by the louvers in the grill.

The Review Board disagrees with the County Building Official and local appeals board and finds that a violation of the VCC Section M1401.1 Installation does exist.

E. Whether to uphold the decision of the County Building Official and the local appeals board that a violation of the VCC Sections R502.8 Cutting, drilling, notching and VCC M1401.1 Installation does not exist.

Davis argued that structural floor joists were drilled within 2" of the edge of the joist for support braces for the HVAC unit suspended from the joists in the crawlspace. Davis further argued that the drilling occurred in the center third of the joist which was also non-compliant. Davis also argued that the code required all HVAC systems must be installed pursuant to the code and the manufacturer's installation instructions. Davis further argued that in accordance with the manufacturer's installation instructions an HVAC unit suspended from joists in a crawlspace required three supports and their unit only contained two supports.

The County argued that the weight of the HVAC unit suspended in the crawlspace was included in the dead load design of the structure. The County also argued that the date provided for the photographic evidence related to this potential violation was inaccurate. The County also questioned how anyone could be certain the other photographic evidence was properly dated?

Davis acknowledged the error in the date on the photographic evidence related to this potential violation which indicated 2022 rather than 2021. Davis stated that the dates on all other photographic evidence was accurate.

The Review Board agrees with the County Building Official and local appeals board and finds that a violation of the VCC Sections R502.8 Cutting, drilling, notching does not exist. The Review Board also agrees with the County Building Official and local appeals board and finds that a violation of the VCC M1401.1 Installation does not exist because Figure 5 in the manufacturers installation guide showing three supports for the HVAC unit suspended by joists in the crawlspace is not a requirement rather a typical installation illustration.

F. Whether to uphold the decision of the County Building Official and the local appeals board that a violation of the VCC Section N1103.3.1 (R403.3.1) Protection of piping insulation does not exist.

Davis argued that the proper protection through the foundation wall (sleeving) for the mini split HVAC piping was not installed properly.

The County argued that the mechanical code does not require protection of piping because the insulation on a HVAC line set is larger than the 3/8" and 1/4" lines inside the insulation and that the insulation provides the space needed should the foundation settle. The County also argued that the sleeve was partially through the wall when originally inspected and appeared to have been pulled out of the foundation wall, under the crawlspace. The County also argued that the item was not part of the Davis appeal to the local appeals board, rather was brought up by Davis during the local appeals board hearing. The County further argued that the local appeals board made no decision on the item.

The Review Board disagrees with the County Building Official and local appeals board and finds that a violation of the VCC Section N1103.3.1 (R403.3.1) Protection of piping insulation does exist.

G. Whether to uphold the decision of the County Building Official and the local appeals board that a violation of the VCC Section M1412.3 Insulation of piping does not exist.

Davis argued that condensation piping for the mini split HVAC unit was leaking in the attic. Davis further argued that the County did not properly investigate the potential violation due to the lack of access to the attic because the County did not bring a ladder for the inspection. Davis also argued that the condensation line was not connected to the drain plug on the back of the unit.

The County argued that the HVAC line set insulation met the required R3 insulation value and was UV and tear resistant. The County further argued that he saw condensation on the line set both in the attic and in the crawlspace, noting it was a hot and humid day when the inspection was performed. The County also argued that they could not access the attic area and that the code does not require the County to provide a ladder to access spaces needing to be inspected. The County further clarified that the responsibility to provide access (ladder) is that of the contractor or property owner.

The Review Board finds that the potential violation of VCC Section M1412.3 Insulation of piping be remanded to the County Building Official for additional investigation and inspection contingent on the Davis' providing the necessary access to the space for inspection.

H. Whether to uphold the decision of the County Building Official and the local appeals board that a violation of the VCC Section M1401.1 Installation does not exist.

Davis argued that the HVAC disconnects were not installed above the average snow load for their area. Davis also argued that the code required all HVAC systems must be installed

pursuant to code and the manufacturer's installation instructions. Davis further argued that the manufacturer's installation instructions required disconnects to be installed at least 16" above grade.

The County argued that the code was silent on the installation height requirement for HVAC disconnects. The County also argued that the manufacturer's installation instructions do not specify a height requirement for the installation of the HVAC disconnect. The County also argued that based on the timeline of the Davis' inquiry and his response, he believed the appeal of this potential violation to be untimely.

The Review Board agrees with the County Building Official and local appeals board and finds that a violation of the VCC Section M1401.1 Installation does not exist because the figure in the manufacturers installation guide showing two courses of 8" block for the installation of the HVAC disconnect is not a requirement rather a typical installation illustration.

- I. Whether to uphold the decision of the County Building Official and the local appeals board that a violation of the VCC Section N1101.11 (R302.1) Interior design conditions does not exist.

Davis argued that the mini split HVAC system for the bonus room over the garage was not designed properly. Davis further argued that the Manual J calculations contained several errors and/or misrepresentations related to the construction and/or installation of the system. Davis also argued that the system was sized too small for the space to be served.

The County argued that the Manual S and J indicated that the units were sized properly. The County also argued that based on the timeline of the Davis' inquiry and his response, he believed the appeal of this potential violation to be untimely.

The Review Board disagrees with the County Building Official and local appeals board and finds that a violation of the VCC Section N1101.11 (R302.1) Interior design conditions does exist.

IV. Final Order

The appeal having been given due regard, and for the reasons set out herein, the Review Board orders as follows:

- A. Whether to uphold the decision of the County Building Official and the local appeals board that a violation of the VCC Sections N1102.4.1.1 (R402.4.1.1) Installation (Mandatory) and VCC N1101.13 (R303.2) Installation does not exist.

The decision by the County Building Official and local appeals board that a violation of the VCC Sections N1102.4.1.1 (R402.4.1.1) Installation (Mandatory) and VCC N1101.13 (R303.2) Installation does not exist is upheld.

- B. Whether to uphold the decision of the County Building Official and the local appeals board that a violation of the VCC Sections R502.8 Cutting, drilling, notching and VCC R502.8.1 Sawn lumber does not exist.

The decision by the County Building Official and local appeals board that a violation of the VCC Sections R502.8 Cutting, drilling, notching and VCC R502.8.1 Sawn lumber does not exist is upheld.

- C. Whether to uphold the decision of the County Building Official and the local appeals board that a violation of the VCC Section E3901.2 General purpose receptacle distribution does not exist.

The decision by the County Building Official and local appeals board that a violation of the VCC Section E3901.2 General purpose receptacle distribution does not exist is overturned related to the bonus room over the garage. The decision by the County Building Official and

local appeals board that a violation of the VCC Section E3901.2 General purpose receptacle distribution does not exist is upheld related to the bathrooms.

- D. Whether to uphold the decision of the County Building Official and the local appeals board that a violation of the VCC Section M1401.1 Installation does not exist.

The decision by the County Building Official and local appeals board that a violation of the VCC Section M1401.1 Installation does not exist is overturned.

- E. Whether to uphold the decision of the County Building Official and the local appeals board that a violation of the VCC Sections R502.8 Cutting, drilling, notching and VCC M1401.1 Installation does not exist.

The decision by the County Building Official and local appeals board that a violation of the VCC Sections R502.8 Cutting, drilling, notching and VCC M1401.1 Installation does not exist is upheld.

- F. Whether to uphold the decision of the County Building Official and the local appeals board that a violation of the VCC Section N1103.3.1 (R403.3.1) Protection of piping insulation does not exist.

The decision by the County Building Official and local appeals board that a violation of the VCC Section N1103.3.1 (R403.3.1) Protection of piping insulation does not exist is overturned.

- G. Whether to uphold the decision of the County Building Official and the local appeals board that a violation of the VCC Section M1412.3 Insulation of piping does not exist.

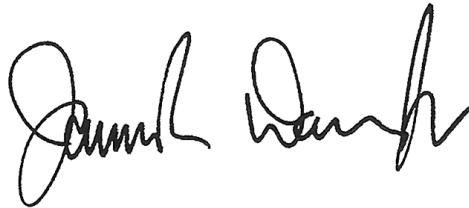
The decision by the County Building Official and local appeals board that a violation of the VCC Section M1412.3 Insulation of piping does not exist is remanded to the County Building Official for additional investigation and inspection contingent on the Davis' providing the necessary access to the space for inspection.

H. Whether to uphold the decision of the County Building Official and the local appeals board that a violation of the VCC Section M1401.1 Installation does not exist.

The decision by the County Building Official and local appeals board that a violation of the VCC Section M1401.1 Installation does not exist is upheld.

I. Whether to uphold the decision of the County Building Official and the local appeals board that a violation of the VCC Section N1101.11 (R302.1) Interior design conditions does not exist.

The decision by the County Building Official and local appeals board that a violation of the VCC Section N1101.11 (R302.1) Interior design conditions does not exist is overturned.



Chair, State Building Code Technical Review Board

Date entered _____ July 15, 2022 _____

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have thirty (30) days from the date of service (the date you actually received this decision or the date it was mailed to you, whichever occurred first) within which to appeal this decision by filing a Notice of Appeal with W. Travis Luter, Sr., Secretary of the Review Board. In the event that this decision is served on you by mail, three (3) days are added to that period.