



MIKE CAUSEY, INSURANCE COMMISSIONER & STATE FIRE MARSHAL  
BRIAN TAYLOR, CHIEF STATE FIRE MARSHAL

November 28, 2022

Mr. William J. Dery, PE  
Sr. Structural Engineer  
Lockwood, Kessler & Bartlett, Inc  
One Aerial Way  
Syosset, NY 11791

**RE: 2018 NC Existing Building Code, Chapter 5 Classification of Work**

Mr. Dery:

This letter is in response to your request for formal interpretation dated October 20, 2022, that was received in NCDOI by mail on October 28, 2022. Your request for formal interpretation states in part:

“Background:

A single-family two-story dwelling (with a partially finished attic space) had a fire in the attic. Approximately 1/3<sup>rd</sup> of the roof sustained structural damage. Firefighting efforts caused elevated moisture throughout the lower levels. The dwelling is now properly dried. The remediation caused all drywall and insulation to be removed and the mechanical and electrical systems to be completely removed and replaced.

Intent of Repair:

To remove and replace the 1/3<sup>rd</sup> of the roof framing back to pre-damage condition, such that no new loads are added to existing structural components.

Question:

Using the Work area compliance method, would the roof repair be classified as a Repair (Section 502), Alteration-Level 1 (Section 503), Alteration-Level 2 (Section 504), or Alteration-Level 3 (Section 505)?

Using the Work area compliance method, the same question for the non-structural removal and replacement of the mechanical and electrical systems and the removal and replacement of the drywall and insulation on each floor (Basement, 1<sup>st</sup> level, 2<sup>nd</sup> level, partially finished attic)?”

**Remarks:**

Code sections noted in this letter are referring to the 2018 edition of the NC Existing Building Code unless otherwise noted.

Attachment A is comprised of the request for formal interpretation as well as all supporting information submitted with the request.

**Code Analysis:**

A repair, by definition, is the restoration of any part of a building for the purposes of correcting damage.

**[A] REPAIR.** The restoration or renewal of any part of an *existing building* for the purpose of its maintenance or to correct damage.

Work classified as a *repair* in Section 502 includes replacement of damaged materials, elements, *equipment* or *fixtures* and nondamaged components necessary for the repair of damaged components. *Repairs* are not subject to the requirements for Level I, II and III Alterations. Chapter 6 Repairs provides the code requirements for work classified as repairs in the 2018 NC Existing Building Code, including building, structural, fire protection, electrical, mechanical, plumbing and energy conservation.

**SECTION 502  
REPAIRS**

**502.1 Scope.** *Repairs*, as defined in Chapter 2, include the patching or restoration or replacement of damaged materials, elements, *equipment* or *fixtures* for the purpose of maintaining such components in good or sound condition with respect to existing loads or performance requirements.

**502.2 Application.** *Repairs* shall comply with the provisions of Chapter 6.

**502.3 Related Work.** Work on nondamaged components that is necessary for the required *repair* of damaged components shall be considered part of the *repair* and shall not be subject to the provisions of Chapter 7, 8, 9, 10 or 11.

**Conclusions:** The restoration and replacement of 1/3<sup>rd</sup> of the roof framing, drywall, insulation, mechanical and electrical systems resulting from the fire damage are classified as a *repair* under Section 502 Repairs and Chapter 6 Repairs of the 2018 NC Existing Building Code.

Please call or email if you have comments or questions.

Sincerely,



David B. Rittlinger, PE, LEED AP  
Chief Code Consultant  
NCDOT-OSFM Engineering & Codes Division

cc: File  
Bridget Herring, Chair – BCC

Mark Matheny, Vice-Chair - BCC and Chair, Existing Building Standing Committee - BCC  
Michael Ali, Chair, Commercial Super Committee – BCC  
Gary Embler, Chair, Residential Super Committee - BCC

## ATTACHMENT A



Headquarters  
Lockwood, Kessler & Bartlett, Inc.  
One Aerial Way · Syosset, NY 11791  
888.298.5162 www.lkbinc.com

October 20, 2022

North Carolina Building Code Council  
325 North Salisbury Street, Rm 5\_44  
Raleigh, NC 27603

RE: Technical Code Interpretation – 2018 North Carolina Existing Building Code

Chief Code Consultant:

**Background:**

A single-family two-story dwelling (with a partially finished attic space) had a fire in the attic. Approximately 1/3<sup>rd</sup> of the roof sustained structural damage. Firefighting efforts caused elevated moisture throughout the lower levels. The dwelling is now properly dried. The remediation caused all drywall and insulation to be removed and the mechanical and electrical systems to be completely removed and replaced.

**Intent of Repair:**

To remove and replace the 1/3<sup>rd</sup> of the roof framing back to pre-damage condition, such that no new loads are added to existing structural components.

**Question:**

Using the Work area compliance method, would the roof repair be classified as a Repair (Section 502), Alteration-Level 1 (Section 503), Alteration-Level 2 (Section 504), or Alteration-Level 3 (Section 505)?

Using the Work area compliance method, the same question for the non-structural removal and replacement of the mechanical and electrical systems and the removal and replacement of the drywall and insulation on each floor (Basement, 1<sup>st</sup> level, 2<sup>nd</sup> level, partially finished attic)?

Sincerely,

William J. Dery, PE  
Sr. Structural Engineer

[External] RE: Request for formal Interpretation



William Dery <[wderiy@vertexeng.com](mailto:wderiy@vertexeng.com)>  
To: Rittlinger, David B

You replied to this message on 10/28/2022 1:22 PM.

Reply Reply All Forward

Fri 10/28/2022 1:09 PM

**CAUTION:** External email. Do not click links or open attachments unless you verify. Send all suspicious email as an attachment to [Report Spam](#).

Thank you for this update.

William J. Dery, PE, SE  
SVP - SR, FORENSIC ENGINEER  
O: 888.298.5162 | C: 636.459.0441 | [WJD@VERTXENGO.COM](mailto:WJD@VERTXENGO.COM)  
THE VERTEX COMPANIES, LLC

From: Rittlinger, David B <[david.rittlinger@ncdoi.gov](mailto:david.rittlinger@ncdoi.gov)>  
Sent: Friday, October 28, 2022 9:59 AM  
To: William Dery <[wderiy@vertexeng.com](mailto:wderiy@vertexeng.com)>  
Subject: Request for formal interpretation

William,  
Good morning.  
I hope you are well.  
I am receipt of your request for formal interpretation via traditional mail delivery.  
Our office will provide a formal interpretation letter to you as soon as possible within the next 30 days.  
Thank you.

David B. Rittlinger, PE, LEED AP  
Code Interpretation Supervisor  
Chief Code Consultant  
Chief Mechanical & Fuel Gas Code Consultant  
Engineering Division



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Office of State Fire Marshal  
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Link to free view of 2018 NC Codes  
<https://codes.iccsafe.org/codes/north-carolina>