

Technical Bulletin FH 2023-09

First Release:

May 26, 2023

Prepared by:

FORTIFIED Technical Team

Applicable Standards:

FORTIFIED Home™-Hurricane FORTIFIED Home™-High Wind

Applicable Designation Level:









FORTIFIED Guidance on Leaf Guards and Gutters

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Introduction

When re-roofing FORTIFIED homes, the presence of gutters and leaf guards can interfere FORTIFIED required edge details including the installation of underlayment under new drip edge metal and starter strip under first course of shingles. This technical bulletin outlines pathways to a FORTIFIED designation.

One of the key performance requirements of FORTIFIED Roof™ is enhanced edge details, especially for asphalt shingle roofs. By installing drip edge over the underlayment, fully adhered starter strip over the drip edge, and first course shingle to starter strip, as shown in Figure 1, a complete load path is achieved at the roof edges. When employed correctly, IBHS testing shows this installation method provides optimum performance of shingle roof covers at the edges, where roof pressures are highest.

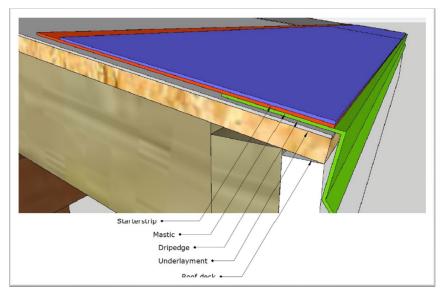


Figure 1. FORTIFIED eave edge assembly





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Another key performance requirement of FORTIFIED is to seal the roof deck at the edges. The installation of a fully adhered starter strip or starter strip embedded in an 8-inch-wide bed of mastic, seals the drip edge, preventing water intrusion.

Anything that interrupts the edge details may interrupt the load path of the roof cover and the sealed roof deck at the roof edges, thereby disqualifying the home from a FORTIFIED Roof – New Roof designation.

When Gutters are Present

Gutters are a common feature on existing homes. However, leaving existing gutters in place when re-roofing may put a FORTIFIED designation in jeopardy.

Qualifying for "New Roof" When Gutters are Present

For a FORTIFIED Roof[™] – New Roof designation, all edge metal must be new. Existing gutters that are left in place during re-roofing may disqualify the home from a New Roof designation for the following reasons:

- Verifying the condition of existing metal is challenging and unreliable.
 Edge metal that has been exposed to the elements and to the effects of weathering may have rust, corrosion, or other damage and deterioration that affects the ability to perform its intended function and may affect the ability of adhesive starter strips to adhere to it.
- Leaving existing gutters in place without installing new drip edge prevents underlayment from being installed under the drip edge, and therefore prevents FORTIFIED compliant edge details from being installed. Removing and reinstalling fasteners and/or bending or lifting of existing edge metal may weaken the connection and is not permitted. **Note:** If underlayment has only been installed to the edge of the metal instead of underneath the edge metal, this disqualifies the home from a FORTIFIED Roof™ − New Roof designation.

However, if existing gutters are to be left in place, a FORTIFIED New Roof designation may still be achieved by installing new drip edge over the existing gutters in compliance with FORTIFIED edge detail requirements, as shown in Figure 2. New drip edge installed over existing gutters may be notched as closely as possible around gutter brackets, provided that only the vertical drip edge leg is notched, and notches do not exceed 2 inches wide in any case.





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Qualifying for "Existing Roof" When Gutters are Present

If existing gutters are present and will not be removed, or new edge metal will not be installed over top of the existing gutter as shown in Figure 2, the home is only eligible for a FORTIFIED $Roof^{TM}$ – Existing Roof designation.

When Leaf Guards are Present

If gutters are present on the home, leaf guards may be installed over them. Leaf guards can also potentially interrupt edge details and put a FORTIFIED designation in jeopardy.

If leaf guards are installed on a FORTIFIED RoofTM by insertion under the shingle or starter strip, this will interrupt the load path of the roof cover and the sealed roof deck at the edges (see Figure 3), the home will not qualify for a FORTIFIED RoofTM – New Roof designation.





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Figure 3. Leaf guards may interrupt FORTIFIED edge details

Qualifying for "New Roof" When Leaf Guards are Present

For FORTIFIED Roof™ – New Roof compliance, leaf guards may be installed underneath or adjacent to the drip edge so that they do not interrupt FORTIFIED edge details, as shown in Figures 4 and 5.



Figure 4. Leaf guard that does not interrupt edge details





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Figure 5. Leaf guard that does not interrupt edge details

Qualifying for "Existing Roof" When Leaf Guards are Present
Homes with leaf guards that are installed under the shingles or starter strip
are only eligible for a FORTIFIED Roof™ − Existing Roof designation.

Process for "Existing Roof" Consideration in FOCUS 2.5

When FORTIFIED Roof™ – New Roof requirements cannot be met during re-roofing due to the presence of leaf guards or gutters, a FORTIFIED Roof™ – Existing Roof designation may be considered, if certain requirements can be documented.

For a new construction or re-roofing project to apply for a FORTIFIED Roof - Existing Roof designation, enter the project as a New Roof evaluation in FOCUS 2.5 so that all roof deck fastening, and sealed roof deck documentation can be collected. Evaluators can enter messages in the "Evaluator Notes" field to alert the IBHS audit team that an Existing Roof designation is being sought. The documentation provided will be reviewed and if possible, a FORTIFIED Roof™ − Existing Roof designation will be issued.





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Compliance Verification Requirements

When leaf guards and/or gutters are present, all documentation for sealed roof deck and drip edge listed in the <u>FORTIFIED Home Documentation</u>
Requirements must be provided.

Additionally, if new drip edge is installed over existing gutters (see Figure 2) photos must be provided showing the largest notches in the drip edge.

Additional References

For additional guidance, refer to the following:

- FORTIFIED Home Documentation Requirements
- FORTIFIED Legal Disclaimer

