

RETROFIT Improvements

Improve Exterior Siding Attachment

Making
Homes
Safer in
Disasters

Retrofit Opportunity

- Before repainting or staining wood or fiber cement siding

Purpose

- To prevent wind from blowing off siding

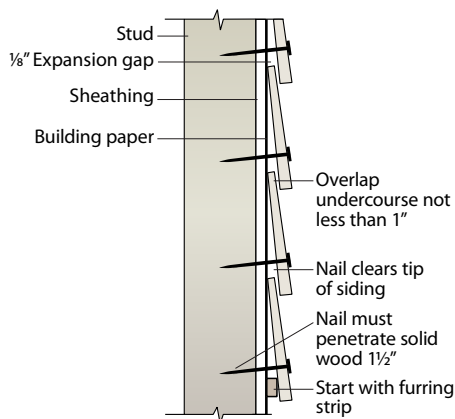
Benefits

- Increases durability of cladding
- Ensures sheathing and walls will remain dry

Illustrations

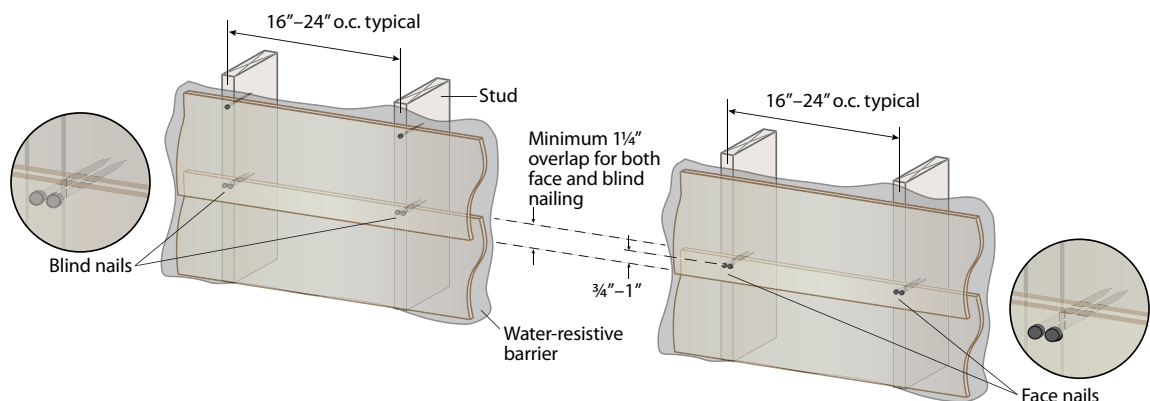
Retrofit

Option 1: Wood siding



Option 2:

Fiber cement siding



Hazards

Wind



Rain



Flood



Seismic



Fire



Snow



Summary

Wood and fiber cement lap siding can be installed to withstand hurricane wind and rain. Siding's hardiness is in the flashing, caulking, fastening, and painting details, so it is never too late to bring siding up to the specifications that will withstand adverse weather conditions without damage.

Siding should be fastened directly to studs at 16" spacing with a minimum of 2" stainless steel siding nails. If inspection of the siding indicates no nails are visible, then it is likely that the siding was installed with blind nails, or fastened at the top of each lap of siding and then covered by the lap that was installed above it. Blind nailing is an acceptable installation method for siding, but if the siding feels loose, it can be reinforced by face nailing at the bottom of the panel. Installing additional fasteners will assure that the wind will not get under the siding and tear it off.

The location of the face nail varies with whether the siding is wood or fiber cement. With wood, the face nail only secures the top lap panel and the tension of that panel holds the top edge of the panel lapped below it in place. This allows for expansion and contraction of both pieces of wood siding. Fiber cement is more dimensionally stable than wood and should be face nailed through both of the panels at the overlap. These techniques are shown in the illustrations below.

Stainless steel siding nails cost about \$50 for a 5 lb. box of 250 nails, which could be enough to securely fasten any loose siding. If a homeowner opted to hire a carpenter to locate and fasten to the studs, the cost would depend on the size and style of the house. This is because a large part of the labor could be spent on ladder or scaffolding set up.

An alternative would be to add fastening to the painter's scope because there is an economy of scale in performing the paint preparation work at the same time that the re-fastening takes place. Dependent on house size, the added task of re-fastening siding might range between \$300 and \$500.

Potential Damage



Photo: www.fema.gov

Key Steps

- This retrofit is easy, but tedious if ladders or scaffolding is required.
- Inspect the siding prior to preparation for repainting or staining.
- If siding is loose, face nail as needed. Locate wall studs and only attach siding at studs. (Note: It may be easier to drill pilot holes for the new nails as it will aid in preventing the siding from splitting.)
- Your contractor may have additional ideas on how to improve the safety of your home.
- For more details about this retrofit improvement, please refer to the list of Resources in the section below.

Resources

CertainTeed, *CertainTeed's WeatherBoards™ Fiber Cement Siding Installation Manual*

<http://www.certainteed.com/resources/fc017.pdf>

FEMA, *Home Builder's Guide to Coastal Construction*

<http://www.fema.gov/library/viewRecord.do?id=2138>

James Hardie, HardiePlank® Lap Siding

<http://www.jameshardie.com/pdf/install/hardieplank-hz10.pdf>

Western Red Cedar Lumber Association, *How to Install Western Red Cedar Siding*

http://www.wrcla.org/pdf/WRCLA_Installing_Siding.pdf

