Southwest
New Brunswick
Service Commission

Metal roofing: Ending the “where does the screw” go debate

The National Building Code is remarkably quiet when it comes to metal roofing – only a few lines specifying the kind of fastener, and a cautionary note that standard profiled metal roofing can’t be used on shallow slope roofs unless specifically designed for that application.

Building Code does not, however, address a key question that our office hears on a regular basis: where should I place the screw in a standard profiled metal roofing application – in the gulley or on the rib?

More than a few people reason that the rib is an area that is less likely to be exposed to continued streams of water, because the rib “stands up” from the valley. Surely placing the screw in the rib means a lesser chance of water penetration, right?

Not so. Installing screws on the rib mean the screw cannot be tightened without deforming the rib. The screw has to go through two layers of metal, and further, because of the distance between the screw head and the wood below, the screw is at greater risk of movement. The distance also means a greater chance of installing the screw at an angle, which will lead to a compromised gasket seal. Further, over time the movement of the roofing material due to thermal contraction/expansion will actually cause the screw’s “bite” into the wood below to weaken.

Simply put, when installing profiled metal roofing, the gasketed screws ought to be installed on the flats. This way, the screw will be in direct contact with the wood/sheathing below. This will allow for a tight, snug install that compresses the screw gasket enough to ensure a good seal.