TECH BULLETIN

Gutter Profile

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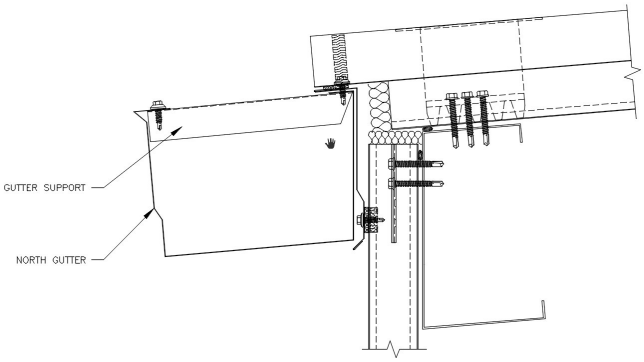
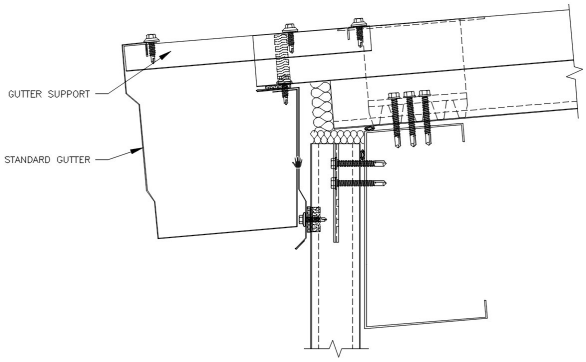
GUTTER PROFILE CONSIDERATIONS

TrueCore offers two types of gutter profiles, standard and northern. When choosing a gutter profile, designers[1] should evaluate conditions that could impact with the function of gutters or downspouts. Gutters or downspouts can become blocked with debris, ice formation or damaged by uncontrolled sliding snow. If the roof has the potential for these conditions, the low profile gutter may be the best choice. ***TrueCore's recommendation is to use the low profile gutter when snow dead loads exceed 30 psf or if the geometry is prone to drifting snow or ice.***

The top of the front face of the standard profile gutter is at the same elevation as the top of the panel seam. This visually hides the panel seams, and it will also stop the free flow of water off of the roof if the gutters or downspouts become blocked due to ice or debris[2]. If enough water is present, ponding may occur on the roof. If the ponding becomes severe, the standing ribs of the panels will become completely submerged by water. Water can possibly enter the building at the wall to roof intersection or through the standing seam if there is any deficiency in the seam sealant or seaming of the panel.

The standard profile gutter is also susceptible to sliding snow. If snow starts to slide it will collide with the front face of the gutter, possibly causing the gutter to fail[3]. The front face of the northern profile gutter is located at the water line of the exterior face of the roof panel.





If the gutters or downspouts become blocked due to ice or debris, water can overflow the front face of the gutter and minimize potential flooding on the roof[2]. With a lower front face, sliding snow may harmlessly pass over the gutter. The designer is responsible for the building geometry or snow retention systems to eliminate the dangers of uncontrolled sliding snow or ice.

[1] *This is provided as a guide for selection of the gutter profile. The building designer is responsible for the selection of and design of the gutter and downspouts.*
[2] *TrueCore gutters are designed to accommodate the weight of water or ice when the gutter is completely full, however the gutter cannot withstand excessive ice accumulations. Correct design to ensure the adequate number of downspouts and maintenance to keep the gutters and downspouts free from blockage are the responsibility of others.*
[3] *TrueCore gutters are not designed to act as a snow retention system.*

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