



## Detail-oriented

NRCA construction details provide useful guidance

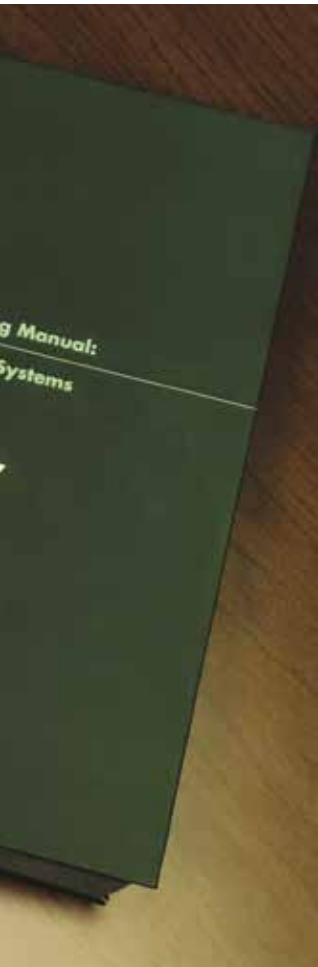
by Mark S. Graham

Proper design of construction details is important to a roof system's performance and longevity. NRCA provides guidance to roof system designers—and the roofing industry in general—regarding design and installation quality for long-term performing roof system construction details.

### NRCA construction details

NRCA provides more than 620 construction details applicable to various roof system types in *The NRCA Roofing Manual*. The four volumes of the manual are: *The NRCA Roofing Manual: Metal Panel and SPF Roof Systems—2016*, *The NRCA Roofing Manual: Steep-slope Roof Systems—2017*, *The NRCA Roofing Manual: Architectural Metal Flashing and Condensation and Air Leakage Control—2018* and *The NRCA Roofing Manual: Membrane Roof Systems—2019*.

Each volume contains construction details for specific roof system types. For example, construction details for asphalt shingle roof systems are provided in Chapter 6—Construction Details in the Asphalt Shingle Section of *The NRCA Roofing Manual: Steep-slope Roof Systems—2017*. Asphalt shingle roof system construction details are



denoted as “ASPH-” followed by a number and sometimes a letter (for example, ASPH-3 and ASPH-3A).

Construction Detail ASPH-3—Eave With Water and Ice-dam Protection Membrane depicts NRCA’s preferred method for addressing an eave detail using a water and ice-dam protection membrane with a stripping ply over the drip edge metal. Construction Detail ASPH-3A—Eave With Water and Ice-dam Protection Membrane depicts an alternative detail NRCA also considers acceptable based on any limitations described in the detail’s notes.

Many construction details for specific roof system types depict common sheet-metal flashings. Consult the construction details in the Architectural Metal Flashing Section of *The NRCA Roofing Manual: Architectural Metal Flashing and Condensation and Air Leakage Control—2018* for specific guidance and options specific to architectural metal flashings.

NRCA’s construction details are presented in the same time-tested, best industry practices context on which *The NRCA Roofing Manual* is based. In some instances, the construction details are more conservative than manufacturers’ standard construction details. Manufacturers’ standard construction details typically are based on the specific manufacturer’s minimum requirements to achieve a specific warranty term. As a result, NRCA’s

construction details may be more complex and labor-intensive (and more costly) to install than others’ standard details.

### Using NRCA’s details

NRCA’s construction details are intended to provide a basis for roof system designers to develop project-specific construction details for conditions applicable to their projects. It is unlikely simply copying NRCA construction details will adequately reflect project-specific conditions.

For example, NRCA’s construction details depict roof decks and vertical flashing substrates as generic, nonspecific materials. Roof system designers should incorporate their project-specific roof deck and vertical flashing substrate material types into construction details.

Similarly, common conditions, such as insulation thicknesses and flashing heights, are depicted in NRCA’s construction details as standard dimensions. Roof system designers should incorporate their project-specific thicknesses, dimensions and any other appropriate parameters into their construction details.

To help roof system designers use and customize NRCA construction details to project-specific conditions, NRCA’s construction details are available as AutoCAD®-compatible (.dwg) files.

The four-volume set of *The NRCA Roofing Manual*, individual volumes of the manual and *The NRCA Construction Details: CAD Files—2019* are available to NRCA members as free downloads through NRCA’s website, [www.nrca.net](http://www.nrca.net); nonmembers can purchase the CAD files. A hard copy version of *The NRCA Roofing Manual* four-volume set and individual manual volumes are available for purchase at [www.nrca.net](http://www.nrca.net). 📄🌐

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Manual	Detail type	Designation <sup>1</sup>
<i>The NRCA Roofing Manual: Membrane Roof Systems—2019</i>	Built-up roof systems	BUR-
	Polymer-modified bitumen	MB-
	EPDM roof systems	EPDM-
	Thermoplastic roof systems	TP-
<i>The NRCA Roofing Manual: Architectural Metal Flashing and Condensation and Air Leakage Control—2018</i>	Coping	C-
	Chimney	CH-
	Counterflashing	CF-
	Embedded edge	EE-
	Expansion joint	EJ-
	Fascia cap	FC-
	Gutter	G-
	Headwall flashing	HF-
	Pipe penetration	PP-
	Scupper	SC-
	Sidewall flashing	SW-
Valley	V-	
<i>The NRCA Roofing Manual: Steep-slope Roof Systems—2017</i>	Asphalt shingle roof systems	ASPH-
	Clay and concrete tile	TILE-
	Metal shingle roof systems	MS-
	Slate roof systems	SLATE-
	Wood shake roof systems	WOOD SHK-
	Wood shingle roof systems	WOOD SHNG-
<i>The NRCA Roofing Manual: Metal Panel and SPF Roof Systems—2016</i>	Architectural metal panel roof systems	AM-
	Structural trapezoidal seam metal panel roof systems	STM-
	Structural vertical seam metal panel roof systems	SVM-

<sup>1</sup>Detail designations are followed by an additional numeral and possibly a letter designation.

Construction detail designations