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September 2011

Product Guide Specification

Specifier Notes: This product guide specification is written according to the Construction Specifications Institute (CSI) 3-Part Format, including *MasterFormat*, *SectionFormat*, and *PageFormat*, as described in *The CSI Construction Specifications Practice Guide*.

This section must be carefully reviewed and edited by the Architect to meet the requirements of the project and local building code. Coordinate this section with other specification sections and the Drawings. Delete all "Specifier Notes" after editing this section.

Section numbers are from *MasterFormat 2011 Update*.

SECTION 23 83 13

ROOF SNOW AND ICE PREVENTION SYSTEM

Specifier Notes: This section covers HotEdge, Inc. roof snow and ice prevention system. Consult HotEdge, Inc. for assistance in editing this section for the specific application.

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Roof snow and ice prevention system.

1.2 RELATED REQUIREMENTS

Specifier Notes: Edit the following list of related sections as necessary. Limit the list to sections with specific information that the reader might expect to find in this section, but is specified elsewhere.

- A. Section 07 62 00 – Sheet Metal Flashing and Trim.
- B. Section 07 71 23 – Manufactured Gutters and Downspouts.

- C. Division 26 – Electrical: Electrical power to radiant-heating electric cables.

1.3 REFERENCE STANDARDS

Specifier Notes: List standards referenced in this section, complete with designations and titles. Delete standards not included in the edited section. Including a standard in this list does not require compliance with that standard.

- A. NFPA 70 – National Electrical Code (NEC).

1.4 SUBMITTALS

Specifier Notes: Edit submittal requirements as necessary. Delete submittals not required.

- A. Comply with Section 01 33 00 – Submittal Procedures.
- B. Product Data: Submit manufacturer’s product data, including installation instructions.
- C. Samples: Submit manufacturer’s samples of each standard color of siliconized modified polyester (SMP) paint system on galvanized steel.
- D. Manufacturer’s Certification: Submit manufacturer’s certification that materials comply with specified requirements and are suitable for intended application.
- E. Operation and Maintenance Data: Submit manufacturer’s operation and maintenance instructions.
- F. Warranty Documentation: Submit manufacturer’s standard warranty.

1.5 QUALITY ASSURANCE

- A. Manufacturer’s Qualifications: Manufacturer regularly engaged, for past 2 years, in manufacture of roof snow and ice prevention system of similar type to that specified.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Delivery and Acceptance Requirements: Deliver materials to site in manufacturer’s original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- B. Storage and Handling Requirements:
 1. Store and handle materials in accordance with manufacturer’s instructions.
 2. Keep materials in manufacturer’s original, unopened containers and packaging until installation.
 3. Store materials in clean, dry area indoors.
 4. Do not store materials directly on floor.
 5. Protect materials and finish during storage, handling, and installation to prevent damage.

1.7 WARRANTY

- A. Warranty Period: 10-year limited warranty.

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. HotEdge, Inc., 1155 South Inca Street, Denver, Colorado 80223. Toll Free 800-411-3296. Fax 309-594-2432. Website www.hotedge.com. E-mail support@hotedge.com.

2.2 ROOF SNOW AND ICE PREVENTION SYSTEM

- A. Roof Snow and Ice Prevention System: "HotEdge" system.
1. Prevent icicles and ice dams from forming along perimeter of roof by use of radiant-heating electric cables.

Specifier Notes: Consult HotEdge, Inc. to determine components of roof snow and ice prevention system required for the roof type and specific application. Delete components not required.

Specify metal for the rails, panels, and tracks. If paint system on galvanized steel is specified, specify color from manufacturer's 12 standard colors.

- B. Snow and Ice Prevention System for All Roofs: "HotEdge" rails.
1. Description:
 - a. Rails fasten to fascia beneath metal drip edge on roof, providing containment system for heat cable.
 - b. Rails firmly position heat cable against metal drip edge, directly transferring heat to roof edge to prevent snowmelt from refreezing before it drains away from structure.
 2. UL Listed.
 3. Rails: [26 gauge (0.019-inch) galvanized steel, 50,000 psi] [0.021-inch copper] [0.032-inch aluminum] [0.027-inch aluminum].
 4. Finish:
 - a. [Galvanized Steel: Siliconized-modified-polyester (SMP) paint system.
 - 1) Color: _____.]
 - b. [Copper: Natural.]
 - c. [Aluminum: Hylar 5000.
 - 1) Color: _____.]
 5. Heating System:
 - a. Commercial-grade, 12-watt, self-regulating, heat cable.
 - b. UL Listed for roof and gutter deicing.
 6. Components: Accessories required by Owner.
 7. Electrical Requirements:
 - a. [120 V AC] [208-277 V AC].
 - b. NEC Article 426.28 requires 30 mA ground-fault circuit protection for roof ice prevention systems.
- C. Snow and Ice Prevention System for Metal Roofs: "HotSeam" rails.

1. Description:
 - a. Rails firmly press heat cable against metal roof panels along standing seams, conducting heat directly to exposed roof panels to create melt paths down to edge of roof.
 - b. Use with "HotEdge" rails.
2. UL Listed.
3. Rails: [26 gauge (0.019-inch) galvanized steel, 50,000 psi] [0.021-inch copper] [0.032-inch aluminum].
4. Finish:
 - a. [Galvanized Steel: Siliconized-modified-polyester (SMP) paint system.
 - 1) Color: _____.]
 - b. [Copper: Natural.]
 - c. [Aluminum: Hylar 5000.
 - 1) Color: _____.]
5. Heating System:
 - a. Commercial-grade, 12-watt, self-regulating, heat cable.
 - b. UL Listed for roof and gutter deicing.
6. Components: "HotSeam" rails, "HotEdge" rails, heat cable, and hardware.
7. Electrical Requirements:
 - a. [120 V AC] [208-277 V AC].
 - b. NEC Article 426.28 requires 30 mA ground-fault circuit protection for roof ice prevention systems.

D. Snow and Ice Prevention System for Asphalt Shingle, Wood Shake, and Composite Roofs: "HotSheet" panels.

1. Description:
 - a. Panels form metal drip edge allowing for installation of "HotEdge" rails.
 - b. Metal drip edge is directly heated by heat cable contained in raceway of "HotEdge" rails to prevent snowmelt from refreezing before it drains away from structure.
2. UL Listed.
3. Panels: [26 gauge (0.019-inch) galvanized steel, 50,000 psi] [0.021-inch copper] [0.032-inch aluminum].
4. Finish:
 - a. [Galvanized Steel: Siliconized-modified-polyester (SMP) paint system.
 - 1) Color: _____.]
 - b. [Copper: Natural.]
 - c. [Aluminum: Hylar 5000.
 - 1) Color: _____.]
5. Heating System:
 - a. Commercial-grade, 12-watt, self-regulating, heat cable.
 - b. UL Listed for roof and gutter deicing.
6. Components: "HotSheet" panels, "HotEdge" rails, transition panels, and heat cable.
7. Electrical Requirements:
 - a. [120 V AC] [208-277 V AC].
 - b. NEC Article 426.28 requires 30 mA ground-fault circuit protection for roof ice prevention systems.

E. Snow and Ice Prevention System for Asphalt Shingle Roofs: "HotShingle" panels.

1. Description:

- a. Panels fasten to fascia and position over asphalt shingles on roof to create metal drip edge allowing for installation of “HotEdge” rails.
- b. Rails provide containment system for heat cable, directly transferring heat to metal drip edge to prevent snowmelt from refreezing before it drains away from structure.
2. UL Listed.
3. Panels: [26 gauge (0.019-inch) galvanized steel, 50,000 psi] [0.021-inch copper] [0.032-inch aluminum] [0.027-inch aluminum].
4. Finish:
 - a. [Galvanized Steel: Siliconized-modified-polyester (SMP) paint system.
 - 1) Color: _____.]
 - b. [Copper: Natural.]
 - c. [Aluminum: Hylar 5000.
 - 1) Color: _____.]
5. Heating System:
 - a. Commercial-grade, 12-watt, self-regulating, heat cable.
 - b. UL Listed for roof and gutter deicing.
6. Components: “HotShingle” panels, “HotEdge” rails, transition panels, and heat cable.
7. Electrical Requirements:
 - a. [120 V AC] [208-277 V AC].
 - b. NEC Article 426.28 requires 30 mA ground-fault circuit protection for roof ice prevention systems.

F. Snow and Ice Prevention System for All Roofs: “HotValley” tracks.

1. Description:
 - a. Tracks attach to roof valleys with polyurethane adhesive.
 - b. Heat is conducted directly from heat cable to tracks and radiates outward from tracks, resulting in melt path sufficient to allow snowmelt to reach heated roof eave before refreezing and forming ice dams.
2. UL Listed.
3. Tracks: [26 gauge (0.019-inch) galvanized steel, 50,000 psi] [0.021-inch copper] [0.032-inch aluminum] [0.027-inch aluminum].
4. Finish:
 - a. [Galvanized Steel: Siliconized-modified-polyester (SMP) paint system.
 - 1) Color: _____.]
 - b. [Copper: Natural.]
 - c. [Aluminum: Hylar 5000.
 - 1) Color: _____.]
5. Heating System:
 - a. Commercial-grade, 12-watt, self-regulating, heat cable.
 - b. UL Listed for roof and gutter deicing.
6. Components: “HotValley” tracks, heat cable, and adhesive.
7. Electrical Requirements:
 - a. [120 V AC] [208-277 V AC].
 - b. NEC Article 426.28 requires 30 mA ground-fault circuit protection for roof ice prevention systems.

G. Snow and Ice Prevention System for All Roofs “HotDrip” adaptor drip edge.

1. Description:
 - a. Creates metal drip edge on roof structures that have metal fascia cap that serves as front fascia.

- b. Once metal drip edge is in place “HotEdge” rails can be installed.
- c. Roof material is laid on top of metal fascia cap. There is usually a small horizontal gap between bottom of roof material and top surface of cap.
2. UL Listed.
3. Drip Edge: [26 gauge (0.019-inch) galvanized steel, 50,000 psi] [0.021-inch copper] [0.032-inch aluminum].
4. Finish:
 - a. [Galvanized Steel: Siliconized-modified-polyester (SMP) paint system.
1) Color: _____.]
 - b. [Copper: Natural.]
 - c. [Aluminum: Hylar 5000.
1) Color: _____.]
5. Heating System:
 - a. Commercial-grade, 12-watt, self-regulating, heat cable.
 - b. UL Listed for roof and gutter deicing.
6. Components: “HotDrip” drip edge, “HotEdge” rails, and heat cable.
7. Electrical Requirements:
 - a. [120 V AC] [208-277 V AC].
 - b. NEC Article 426.28 requires 30 mA ground-fault circuit protection for roof ice prevention systems.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine roof areas to receive roof snow and ice prevention system.
- B. Notify Architect of conditions that would adversely affect installation or subsequent use.
- C. Do not begin installation until unacceptable conditions are corrected.

3.2 INSTALLATION

- A. Install roof snow and ice prevention system in accordance with manufacturer’s instructions at locations indicated on the Drawings.
- B. Install roof snow and ice prevention system in accordance with NEC.
- C. Install roof snow and ice prevention system to prevent icicles and ice dams from forming along perimeter of roof.
- D. Do not penetrate roof deck with installation of roof snow and ice prevention system.
- E. Connect roof snow and ice prevention system to electrical power as specified in electrical section.

3.3 ADJUSTING

- A. Repair minor damages to finish in accordance with manufacturer's instructions and as approved by Architect.
- B. Remove and replace with new material, damaged components that cannot be successfully repaired, as determined by Architect.

3.4 PROTECTION

- A. Protect installed roof snow and ice prevention system to ensure that, except for normal weathering, system will be without damage or deterioration at time of Substantial Completion.

END OF SECTION