



Roofing contractors' role in sustainability

The National Environmental Policy Act of 1969 defines sustainability as something that can “create and maintain conditions under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic and other requirements of present and future generations.”

The United Nations Environmental Program Global Status Report for Buildings and Construction 2024/2025 indicates the built environment, including the materials used in construction and the operation of buildings and structures, is responsible for 34% of global carbon emissions and energy consumption. To reduce carbon emissions and energy use globally, improvements in the built environment sector are necessary.

But what is a roofing contractor's role within the greater sustainability landscape? The following guidance provides ways for roofing contractors to exercise transparency regarding their business operations.

Environmental impacts

A roofing contractor typically is the intermediary between the following:

- A jurisdiction regulating sustainability
- Designers who specify products
- Manufacturers who produce roofing materials and products
- The building owner

A roofing contractor is in an important position in relation to a project's sustainability objectives because of the potential effect roofing and reroofing can have on the environment.

One way the construction industry can be more sustainable is through careful choice of materials used. To compare the sustainability attributes of different materials and products, standardized documents called Environmental Product Declarations can be used.

An EPD provides information about the ways a specific material or product can affect the environment. The energy used and greenhouse gases emitted to extract the raw materials, transport them, manufacture the building products and install those products at job sites all factor into metrics included in EPDs. Global warming potential, ozone depletion potential and water consumption are among the metrics that can be included.

Creation of an EPD for construction materials and products used in roofing typically lies with the manufacturer or, in some instances, groups of manufacturers or manufacturers associations. ASTM International is one of many groups that develop EPDs for the roofing industry. EPDs also can be found directly on manufacturers' websites or on websites of the third-party groups that publish them, such as the National Sanitation Foundation.

Although roofing contractors are not responsible for developing EPDs, it is important they understand EPDs contain useful information so they can be shared with and explained to building owners. Industry-wide average EPDs for material types or product classes can be useful to get a general idea about the impacts a specific material will have over its life cycle. But individual materials can vary

significantly in formulation, manufacturing process, raw material sourcing, packaging and recyclability from one another and the average. NRCA recommends the use of manufacturer- or plant-specific EPDs over industry average ones where they are available.

The end of life of materials and products also affects their impact on the environment. Because contractors handle, install and dispose of tons of material and product packaging in the construction process, properly documenting waste disposal can often be their responsibility.

One aspect of waste management required in some jurisdictions is waste diversion, which refers to the redirecting of waste materials away from landfills via alternative paths such as recycling. Although waste diversion plans vary, one example is the requirements set by Orange County, Calif., where either 65% of nonhazardous construction waste by weight needs to be diverted or tracked tonnage of waste needs to meet mandated maximums per square foot.

For new construction, roofing contractors need to be aware of what is in general contractors' documents relative to waste management and recycling, but in reroofing situations, roofing contractors often are left to figure it out. Depending on the jurisdiction, a contractor may need to provide proof of a demolition or disposal plan and provide a deposit to obtain a roof permit.

In these situations, roofing product manufacturers can be consulted. Those companies are trying to meet their own corporate sustainability goals and show more circular life cycles for their products.

Some manufacturers have take-back and recycling programs for their scrap and post-consumer materials, which they can divert from landfills by repurposing and in some cases reusing it.

The Construction Demolition and Recycling Association has developed Supplier's Training & Requirements for Asphalt Shingle Recycling, which can be found at shinglerecycling.org/resources.

An option that contractors have some control over is how they receive the materials and products they purchase. Whether materials come shrink-wrapped, boxed or on pallets can affect how much waste is left to address afterward.

Additionally, there are ways to control the amount of material waste per job. Collecting data on material used and salvaged makes it possible to set measurable goals for reducing waste and provides information that can help make those goals attainable.

In-house reduction in greenhouse gas emissions and energy use also can be an avenue for roofing contractors to work on their own sustainability. Contractors can consider ways to reduce fuel consumption through vehicle management like reducing the number of vehicles necessary per job site or choosing ones with improved fuel economy.

Also, upgrading shop, warehouse and office lighting, HVAC equipment and building envelope not only can help save money in energy costs but also demonstrate an effort to practice sustainability.

Reporting

Some stakeholders may require formal reporting on sustainability or environmental social and governance, and some means of reporting are more cumbersome than others. Carbon Disclosure Project is an international nonprofit that helps groups disclose their environmental impacts. CDP reporting yields a score from D- to A but comes with time-restricted mandates as a result. The Sustainability Accounting Standards Board also provides a framework for reporting. Its environmental social and governance reporting can be broken into the following categories; the italicized terms are ones the

Sustainability Accounting Standards Board considers most relevant for the construction industry:

- Environmental
 - *Greenhouse gas emissions*
 - *Waste management*
 - *Air quality*
 - *Energy management*
 - *Water management*
 - *Biodiversity impacts*
- Social
 - *Workforce health and safety*
 - Employee development
 - Diversity and inclusion
 - Community impact
- Governance
 - *Product innovation*
 - *Pricing integrity and transparency*
 - Corporate governance and risk management
 - Supply chain management

More important than how far along a roofing company is on its sustainability journey is progress. Highlighting things that are already being done well and being honest about areas that still need work provides the transparency that is helpful to build trust with building owners, potential clients and general contractors.

The social aspect of sustainability in the workplace is an area in which many roofing contractors are already doing a good job. Areas including workforce health and safety, employee development, diversity and inclusion, and community impact may already be associated with full-time positions or teams of people.

NRCA's safety resources are available at nrca.net/safety. For information about workforce development, visit nrca.net/workforce-development/training.

Sharing a vision for future goals is an opportunity to write the company's sustainability narrative.

Conclusion

Sustainability regulations determined at the federal, state and local levels are coming. There also are climate pollution reduction grants that help act as incentives. Buy-clean policies and low embodied carbon requirements put global warming potential limits on certain building products, and sustainable deconstruction requirements require certain percentages of waste to be diverted from landfills.

As the roofing industry continues to focus on sustainability, roofing contractors play an important role. Staying informed about what the industry has an appetite for as well as what is being provided by and required from manufacturers and state and local municipalities adds value to a roofing contractor's company.