KEA KOVING KOOTEr

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Things Can Be Easier—NRCA's Roof Wind Designer can help you design for tornadoes

In December 2021, the American Society of Civil Engineers published Figure 2 shows how the methods differ and how both can lead to larger an updated edition of ASCE 7, "Minimum Design Loads and Associated



Criteria for Buildings and Other Structures," (ASCE 7-22). ASCE 7-22 is referenced in the International Building Code,® 2024 Edition, as the basis for design wind-uplift load determination for all roof assembly types except asphalt shingles and tile. The building code requires design wind pressures to be shown in

construction documents.

ASCE 7-22 features a chapter devoted to designing for pressures from tornadoes. In some cases, these design pressures are higher than those calculated for wind for the same building.

Tornadoes need to be considered when the following set of criteria are all met:

- Risk factor: Buildings must fall into Risk Category III or IV.
- Location: Buildings must be located in a tornado-prone region per
- Basic wind speed, tornado speed and exposure category: Tornado speed must be at least 60 mph and meet specific minimums relative to the basic wind speed for that building. (Exposure B: VT ≥ 0.5 V; Exposure C: $VT \ge 0.6 V$; Exposure D: $VT \ge 0.67 V$)

The calculation for tornado pressure is similar in appearance to the one used for wind design but has a unique set of coefficients specific to tornadoes. Tornadic wind behaves differently than the three-second gusts used to determine wind-uplift pressures.



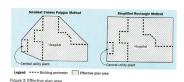
Tornado pressure values most dramatically deviate from wind-uplift pressures as a result of the differences between tornado speeds and basic wind speeds for a given project.

Basic wind speed is found on one of four maps based on risk category. Tornado wind speed is determined by finding a tornado speed value on one of 16 maps based on the risk category and the effective plan area.

The effective plan area is defined as the smallest convex polygon enclosing a building plan and is not necessarily the same as the roof area, especially when a building is not rectangular. Another, slightly more conservative, method for Figure 2: Effective plan area coming up with a value for an effective plan area is to take the area of the smallest rectangle that encloses the whole plan area.

values for the effective plan area than roof area.

The tornado wind speed maps range from up to 1 square foot effective plan area and Risk Category III up to Risk Category IV and a plan area at least 4 million square feet. Values for wind and tornado speeds also can be found



online via the ASCE Wind Design Geodatabase.

To see relative pressures as tornado loads begin to pass wind-uplift pressures, consider this example: A 30-foot-high, 1-million-square-foot roof area, Risk Category III, Exposure C building in Oklahoma City has an ASCE 7-16 and ASCE 7-22 design uplift pressure value of 30.5 pounds per square foot in Roof Zone 1'. The same building has a design tornado load of 36.3 psf in Roof Zone 1'.

A similar 30-foot-high, 1-millionsquare-foot roof area, Exposure C building in Oklahoma City that is Risk Category IV has an ASCE 7-16 and ASCE 7-22 design uplift pressure value of 33.2 psf in Roof Zone 1' and a design tornado load of 46 psf in Roof Zone 1'.

In general, for low-rise buildings, especially those 30 feet high or less with effective plan areas greater than 1 million square feet and in Risk Category III, Exposure C in Arkansas, Kansas, Missouri and Oklahoma, start to yield design tornado pressures that can exceed wind pressures. The difference between the two values increases with building area and is more severe for Risk Category IV buildings.

To help you address these differences, NRCA's Roof Wind Designer online application now includes wind loads associated with ASCE 7-22 and tornado load calculations based on the components and cladding section of ASCE 7-22's Chapter 32 on tornado loads.

Given the necessary inputs for projects, the site will help you determine whether tornado loads need to be considered and, if so, what they are.

Try it today at roofwinddesigner .nrca.net.

By: Kurt Fester, NRCA project manager Professional Roofing Magazine December 2024-January 2025 Issue



SOUTHEASTERN MICHIGAN ROOFING CONTRACTORS ASSOCIATION 8155 Annsbury, Ste 104 Shelby Twp, MI 48316 (586) 759-2140 www.smrca.org

2025 SMRCA Golf Outing

~ SAVE THE DATE ~

2025 SMRCA Annual Golf Outing will be held at Links of Novi Golf Course

Monday, May 19, 2025



Fall Protection is OSHA's Most-Cited Violation for 2024

The top 10 OSHA most-cited violations for fiscal year 2024 are:

Fall protection—general requirements: 6,307 violations

Hazard communication: 2,888 violations

• Ladders: 2,573 violations

• Respiratory protection: 2,470 violations

Lockout/tagout: 2,443 violations

Powered industrial trucks: 2,248 violations

Fall protection—training requirements: 2,050 violations

Scaffolding: 1,873 violations

 Personal protective and lifesaving equipment—eye and face protection: 1.814 violations

Machine guarding: 1,541 violations

2025 MiRCA Convention

~ SAVE THE DATE ~

2025 MiRCA Annual Convention will be held at



Mission Point Resort—Mackinac Island

July 17-20, 2025



February 12, 2025 Suburban Collection Showplace Novi, MI

The Construction Association of Michigan and Home Builders Association of Southeastern Michigan have joined forces to host Michigan's largest construction industry event.

This one-day expo brings together residential and commercial contractors, designers, suppliers and service providers offering network opportunities and business building workshops designed to support the continued success of Michigan's construction industry.

Show Hours:

Wednesday, February 12, 2025 8:00 am —3:00 pm

To register online: www.miconstructionexpo.com

States Expected to be More Active Regarding Worker Safety Under Trump

Attorneys say state work safety agencies are preparing to ramp up enforcement in response to an anticipated change from Biden-era enforcement to decreased enforcement under the new Trump administration, according to Bloomberg Law.

The Trump administration is expected to pull back on work safety efforts by slowing down implementation of new rules and reducing worksite inspections.

Some states are poised to ensure companies comply with local rules that are not in effect at the federal level—such as the proposed national heat standard—and employers in those states will be subject to requirements stricter than federal requirements.

California's Division of Occupational Safety and Health is preparing to lead efforts for worker protections, and Oregon and Washington are expected to follow suit. Other states with occupational safety and health plans—such as Kentucky, Michigan and Tennessee—are expected to be more moderate in their approaches.

Twenty-seven states, Puerto Rico and the U.S. Virgin Islands have federal approval to operate a job safety agency.

There often is tension and variation when the Occupational Safety and Health Administration sets the minimum requirements for itself and states. Federal law says OSHA can launch a takeover of a state worker safety program if it is not "at least as effective as" the federal agency. Most recently, South Carolina and Arizona have been involved in fights with federal OSHA regarding their power to enforce worker safety protections.

Although some states may want to adopt or expand their worker safety programs, it can be costly. During the past decade, Florida and Kansas lawmakers considered establishing state plans but decided against it because the states would have to pay much of the program's expenses. Finding subject-matter experts to staff a state work safety agency also can be a challenge. Converting into a state plan could be done in as little as six months, but it depends on the existing administrative frameworks within states.

Professionalroofing.net January 21, 2025

Protecting Workers from Cold Stress

Cold temperatures and increased wind speed (wind chill) cause heat to leave the body more quickly, putting workers at risk of cold stress. Anyone working in the cold may be at risk, e.g., workers in freezers, outdoor agriculture and construction.

Common Types of Cold Stress

Hypothermia

- Normal body temperature (98.6°F) drops to 95°F or less.
- Mild Symptoms: alert but shivering.
- Moderate to Severe Symptoms: shivering stops; confusion; slurred speech; heart rate/breathing slow; loss of consciousness; death.

Frostbite

- Body tissues freeze, e.g., hands and feet. Can occur at temperatures above freezing, due to wind chill. May result in amputation.
- **Symptoms:** numbness, reddened skin develops gray/white patches, feels firm/hard, and may blister.

Trench Foot (also known as Immersion Foot)

- Non-freezing injury to the foot, caused by lengthy exposure to wet and cold environment. Can occur at air temperature as high as 60°F, if feet are constantly wet.
- Symptoms: redness, swelling, numbness, and blisters.

Risk Factors

Dressing improperly, wet clothing/skin, and exhaustion.

For Prevention, Your Employer Should:

- Train you on cold stress hazards and prevention.
- Provide engineering controls, e.g., radiant heaters.
- Gradually introduce workers to the cold; monitor workers; schedule breaks in warm areas.

How to Protect Yourself and Others

- Know the symptoms; monitor yourself and co-workers.
- Drink warm, sweetened fluids (no alcohol).
- Dress properly:
 - Layers of loose-fitting, insulating clothes
 - Insulated jacket, gloves, and a hat (waterproof, if necessary)
 - Insulated and waterproof boots

What to Do When a Worker Suffers from Cold Stress

For Hypothermia:

- Call 911 immediately in an emergency.
- To prevent further heat loss:
 - Move the worker to a warm place.
 - Change to dry clothes.
 - Cover the body (including the head and neck) with blankets, and with something to block the cold (e.g., tarp, garbage bag).
 Do **not** cover the face.
- If medical help is more than 30 minutes away:
 - Give warm, sweetened drinks if alert (no alcohol).
 - Apply heat packs to the armpits, sides of chest, neck, and groin. Call 911 for additional rewarming instructions.



For Frostbite:

- Following the recommendations "For Hypothermia".
- Do not rub the frostbitten area.
- Avoid walking on frostbitten feet.
- Do not apply snow/water. Do not break blisters.
- Loosely cover and protect the area from contact.
- Do not try to rewarm the area unless directed by medical personnel.

For Trench (Immersion) Foot:

• Remove wet shoes/socks; air dry (in warm area); keep affected feet elevated and avoid walking. Get medical attention.

OSHA Quick Card OSHA.gov

Upcoming Industry Trade Shows 2025

Feb. 19-21	International Roofing Expo (IRE) San Antonio, TX theroofingexpo.com
Feb. 12	Great Lakes Design and Construction Expo Novi, MI miconstructionexpo.com
Mar. 6-9	2025 IIBEC International Convention and Trade Show Orlando, FL iibec.org
Apr. 8-9	NRCA Roofing Day in D.C. Washington, D.C. nrca.net/roofingday



The 988 Lifeline provides 24/7, free and confidential support for people in distress, prevention and crisis resources for you or your loved ones, and best practices for professions in the United States.

NRCA's "This Week in D.C." News—January 16, 2025

now open!

Join us for Roofing Day in D.C., the largest In late 2024, entities covered under the advocacy event dedicated solely to the roofing industry, April 8-9.

Each year, roofing professionals meet with members of Congress on Capitol Hill to discuss the critical issues facing their companies and the roofing industry. Our priority issues this year will focus on solutions to workforce shortages and pro-growth tax reform.

Expert speakers and panelists will inform and inspire you to prepare you for your meetings with members of Congress and their staffs. As always, attendees will have ample opportunity to network and connect with fellow professionals, and we encourage you to bring key employees to the event. To view our draft itinerary, book your hotel room and register, please visit www.nrca.net/roofingday.

NRCA submits comments regarding OSHA heat illness rulemaking

NRCA joined with allied trade groups in the Construction Industry Safety Coalition to submit comments on the Occupational Safety and Health Administration's Notice of Proposed Rulemaking regarding Heat Injury and Illness Prevention in Outdoor and Indoor Work Settings. This proposed rule was published in 2024 and, if finalized, would establish a new regulatory standard to protect employees from heat illness across all major industries. NRCA has been actively engaged in the regulatory process for this proposal since 2021, including having members provide agency officials with critical information about roofing industry safety practices in meetings pursuant to the Small Business Regulatory Enforcement Fairness Act.

The comprehensive coalition comments submitted Jan. 14 outline the construction industry's numerous concerns with the proposal, including overly prescriptive compliance requirements, severely underestimated regulatory costs and an overall lack of flexibility for employers. The comments conclude by urging OSHA to "reconsider such a broadly sweeping proposed standard and reengage with stakeholders to focus on industry-specific solutions." The incoming Trump administration likely will pause the rulemaking process and review this proposal before moving forward with a final rule, and NRCA looks forward to working with the new administration regarding this issue.

Registration for Roofing Day in D.C. 2025 is NRCA files amicus brief against the **Corporate Transparency Act**

Corporate Transparency Act beneficial ownership reporting requirements were provided relief from having to file their information by Jan. 1, 2025. This decision, and subsequent deadlines for entities to file, has flopped back and forth as various courts weigh in on the requirement. Currently, covered entities are not required to file, but this decision could change based on an appeal to the Supreme Court.

NRCA recently filed an amicus brief with the Supreme Court to advocate for its members' rights, specifically opposing a stay on the current injunction.

As you may know, the Corporate Transparency Act is a federal law that mandates most small businesses operating in the U.S. to file a "Beneficial Ownership Information" report, disclosing details about the individuals who substantially own or control the company with the goal of combating money laundering, terrorist financing and other illicit activities by preventing people from hiding their ownership of businesses; this information is submitted to the Department of Treasury's Financial Crimes Enforcement Network.

House approves Laken Riley Act

The House approved the Laken Riley Act (H.R. 29), legislation to require the Department of Homeland Security to detain individuals who are unlawfully present in the U.S. and have been arrested for burglary, theft, larceny, or shoplifting. The bill is named after a Georgia woman who was murdered in 2024 by an undocumented immigrant who had been released multiple times after committing crimes in Georgia and New York. The bill also authorizes state governments to sue for injunctive relief over certain federal immigration-related decisions or actions that affect their residents, which could greatly expand the involvement of states in immigration policy.

The House approved the bill on a bipartisan vote of 264-159, and the Senate subsequently voted to move forward with debate regarding the bill. Senators are now negotiating potential amendments to the legislation. The strong bipartisan House vote illustrates the shift toward stricter immigration enforcement following the 2024 elections.

(Congress approved an amended version of the Laken Riley Act (S. 5) on January 22 and President Trump is expected to sign the bill into law.)

Some Winter Hazards that may be Overlooked

Below are a few winter hazards that are often overlooked but are important for outdoor workers to be aware of during the colder months.

Dehydration: While dehydration is commonly associated with hot weather, cold air can lead to fluid loss as well. In winter, lower humidity levels can cause moisture to evaporate from the skin more quickly, and people may not feel thirsty due to the cold. This can be compounded by workers' tendency to drink less during cold conditions. Encourage workers to hydrate regularly, even when it feels less necessary.

UV Ray Exposure: Many people assume UV rays are less potent in the winter, but snow actually amplifies the intensity of UV exposure. Reflecting up to 80% of UV rays, it increases the risk of skin damage and eye injury. Workers should wear sunscreen and protective eyewear. especially if working outdoors in snowy or highaltitude environments.

Carbon Monoxide: The risk of carbon monoxide poisoning is heightened when portable heaters and generators are used in poorly ventilated spaces, like work trailers or vehicle cabs. Carbon monoxide is a silent killer, with symptoms often not being immediately noticeable (headaches, dizziness, nausea). It's vital that workers use such equipment in well-ventilated areas and that proper safety protocols are followed to prevent exposure.

Incorrectly Layered FR/AR Clothing: Wearing the wrong layers can significantly impact a worker's safety and comfort. Fire-Resistant (FR) and Arc-Resistant (AR) clothing must be worn in the proper layers to ensure warmth while still allowing moisture to escape. If the base layer is not moisture-wicking or the outer layer is not windproof, it can increase the risk of hypothermia or discomfort from trapped sweat. Ensuring clothing is layered correctly helps maintain warmth and safety.

Self-Retracting Lifelines: Cold weather can freeze or damage fall protection gear. Ice buildup in self-retracting lifelines can affect their function. potentially leaving workers vulnerable to falls. It's important to inspect fall protection equipment regularly during winter months and ensure it's stored and maintained properly. Additionally, workers should be educated about the impact of low temperatures on their equipment and take preventative measures to keep it functioning optimally.

Being aware of these additional winter hazards and taking steps to mitigate them can help ensure the safety and well-being of outdoor workers during the colder months.

Michigan Minimum Wage Increase January 1, 2025

Michigan's Minimum Wage will increase twice in 2025—first increasing on January 1, 2025 following the usual rate increase schedule, and again on February 21, 2025, in accordance with the recent Michigan Supreme Court ruling regarding the Improved Workforce Opportunity Wage Act (IWOWA), PA 337 of 2018, schedule.

Effective January 1, 2025:

- The minimum hourly wage will increase from \$10.33 to \$10.56 per hour.
- The 85% rate for minors under the age of 18 will increase from \$8.78 to \$8.89 per hour.
- The tipped employee rate of hourly pay increases from \$3.93 to \$4.01 per hour.
- The training wage of \$4.25 per hour for newly hired employees under the age of 20 for their first 90 calendar days of employment remains unchanged.

https://www.michigan.gov/leo/news/2024/10/01/michigan-minimum-wage-rate-2025-increase-schedule

Streamlining School Construction with House Bill 4603

A new law in Michigan will soon allow school districts to use a design-build construction method for school projects, moving away from the long-standing requirement under Public Act 306 of 1937 that necessitated hiring an independent licensed architect or engineer. With the enactment of House Bill 4603, anticipated to take effect around March 2025, districts can opt for a design-build approach, wherein a single contract encompasses both design and construction services, potentially streamlining project timelines.

While the design-build method offers advantages like accelerated project completion and consolidated accountability, it may not be suitable for all projects. It is recommended that districts carefully assess the project's specific needs, the complexity of adhering to school construction laws, and the potential risks involved. For many projects, the traditional method of engaging an independent architect or engineer may remain the most efficient and cost-effective strategy.

Full text of the bill can be found at https://legislature.mi.gov.

IRS Issues Standard Mileage Rate for 2025

Beginning on January 1, 2025, the standard mileage rate for the use of a car, van, pickup or panel truck will be: 70 cents per mile for business miles driven and 21 cents per mile driven for medical or moving purposes for qualified active-duty members of the Armed Forces.

These rates apply to electric and hybrid-electric automobiles as well as gasoline and diesel-powered vehicles.

Birthday Wishes

Dan Casey - T.F. Beck Company January 7



Chuck Rosa - Lifetime Member February 16

Jim Bieszki - Architectural Building Specialties Inc.
March 6

Bill Borgiel - Lutz Roofing Company April 25

Deepest Sympathy

Our deepest sympathy's are extended to the family and friends of:



Lawrence Pronek

Retired from Royal Roofing Company

JATC Training Center

The term for all Detroit Apprentices will be as follows:

Apprentice Two & Single Ply One

Apprentice One & Single Ply Two

BUR One & Steep Slope 1

BUR Two & Steep Slope 2

Mon., January 20, 2025

Tues., January 21, 2025

Wed., January 22, 2025

Thurs., January 23, 2025

Apprentice 7 & 8 Hands On + Safety & Health

Thurs., January 23, 2025

All classes begin at 6:30 pm.

Journeyworkers upgrade classes to improve your skills and your worth, are available at no cost to all Detroit 149 members. Dues must be current in order to enter the Training Center.

If you are interested in any of these classes or have questions, contact the Training Center Tom Jaranowski at 248-543-3847 or tjaranowski@Detroitroofers.org

Department of Labor Announces Adjusted OSHA Civil Penalty Amounts

The U.S. Department of Labor announced changes to the Occupational Safety and Health Administration civil penalty amounts based on inflation for 2025.

On January 15, 2025, the maximum OSHA penalties for serious and other-than-serious violations increased from \$16,131 to \$16,550 per violation. The maximum penalty for willful or repeated violations increased from \$161,323 to \$165,514 per violation.

For additional details, visit osha.gov/penalties

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