Calendar of Events

administrator@seacolorado.org

December 12, 2023 - June 1, 2025

SEAC Wind Study Sponsorships

2023 - 2025

To Donate - Click on "Register for this Event"

Executive Summary

Recent changes to ASCE 7 wind provisions have wrought havoc along the Colorado front range, seeing mistaken shifts of the Special Wind Region (SWR) boundary, a transition from ~50-year to ~700-year reference wind speeds, a risk-targeted reduction to the mapped speeds along the SWR border, and more. SEAC and CPP have managed to limp along with the Front Range Gust Map from 2006 using conservative approximations based upon the limited data available at the time. Not only is this information is outdated, but no regional wind study has ever been performed south of Castle Rock -- leaving wind speeds for half of the mapped Colorado SWR undefined. Furthermore, the SWR boundaries in ASCE 7-16 and 7-22 remain incorrect, especially south of the Denver metro area where Pikes Peak is no longer included.

Colorado needs a new study to correctly define and fully cover the CO SWR, and as before, we need to rely on SEAC members and their networks for funding and support of this significant effort, which is anticipated to cost on the order of \$200,000. Fortunately, we have found a willing and enthusiastic partner in Colorado Department of Homeland Security and Emergency Management (DHSEM), which enables us to apply for Federal Emergency Management Agency Building Resilient Infrastructure and Communities (FEMA BRIC) funding to cover up to 75% of the costs. We must raise A minimum of \$50,000 in funds by February 2024 in order to qualify for the FEMA BRIC grant. The SEAC board and NCSEA have already pledged \$5,000, bringing us to 10% of this goal. For the remainder, we are turning to the SEAC membership, AHJs, corporate donors, and other interested parties.

This study will have a significant and beneficial impact on structural engineers in Colorado, and we thank you in advanced for your support! Please consider donating to the study and sharing this information with anyone in your network who may be interested in supporting this important endeavor. Any individual or firm who sponsors at the Bronze Level or higher will receive recognition for their contribution online through SEAC.

Sponsorships
Platinum - \$10,000
Gold - \$5,000
Silver - \$2,500
Bronze - \$1,000
Iron - \$500
Contribution - \$100

Credit cards, checks, and money orders are accepted through our secure online form. You will receive a "registration" email as a receipt for your sponsorship. Additionally, if you prefer you can skip the form and send a check made out to "SEAC" and marked "Wind Study" to:

SEAC 303 S. Broadway Ste 200-345 Denver, CO 80209 Explanation of Study and Funding Process

The SEAC Wind Committee is in the process of submitting a grant application to the Federal Emergency Management Agency (FEMA) for funding using the Building Resilient Infrastructure and Communities (BRIC) program through a sub-application process at the Colorado Department of Homeland Security and Emergency Management (DHSEM) in order to fund efforts to update the Colorado Front Range Gust Map. Currently, DHSEM and FEMA have a "Code Plus-Up" program where applicants may apply for Federal Funding through FEMA to update building codes at state and/or local jurisdiction levels for the purposes of further reducing losses due to natural disasters like wind, earthquakes and floods. According to ICC, up-to-date codes have the potential to avert approximately \$600 billion in losses due to disasters by 2060. Given this "Code Plus-Up" program, our proposal has a high likelihood of getting selected, and if we receive the grant, FEMA will cover up to 75% of the total project costs.

The SEAC Wind Committee has submitted a Notice of Interest (NOI) through the state DHSEM, which has been accepted. On December 22, 2023, the SEAC Wind Committee submitted a draft sub-application to DHSEM with a final application due by mid-February 2024. The Committee will be very active during this time while coordinating with the state DHSEM to ensure that the sub-application is complete, correct, and appeals to FEMA and DHSEM reviewers for selection and approval. As a vital part of the application, the SEAC Wind Committee must provide a commitment to fund 25% of the total project cost. The anticipated project cost is \$200,000, which means the SEAC Wind Committee will be responsible for providing a commitment of at least \$50,000.

We believe that this update is necessary given recent updates to the ASCE7 standard and the limitations of the previous study. The Special Wind Region along the Front Range of Colorado is in place due to the localized effects of the thermally-driven downslope winds that occur on a regular basis in the region. These are familiar to anyone living in the area and are strong enough to govern the design wind speeds for the foothills and adjacent communities.

The Front Range Wind Speed Map was originally commissioned in the early 2000s to provide clarity and guidance for design wind speeds along the northern Front Range of Colorado. It was largely developed by Dr. Jon Peterka and his team at CPP Wind Engineering Consultants who, at the time, were primarily responsible for the design wind speed maps in ASCE 7.

For budgetary reasons, the original study concentrated on the northern portion of the Front Range as it covered most of the major population centers. However, it was always recognized that there was a large portion of the Special Wind Region to the south of the Denver metropolitan area that would benefit from similar treatment in both determining appropriate design wind speeds and refining the extent of the area to which such provisions should apply.

The original study was conducted to be consistent with the requirements of ASCE 7-05, which had its foundations in Allowable Stress Design (ASD) principles. As such, the analyses concentrated on predicting design wind speeds for a 50-year Mean Recurrence Interval (MRI). With the introduction of ASCE 7-10 and the evolution towards reliability-based approaches, the Front Range Wind Speed Map was updated to include 700-yr and 1700-yr MRI wind speed contours. This was further updated to incorporate 3000-yr MRI values when this return period was added to ASCE 7-16 for Risk Category IV buildings.

The updates for longer return period MRIs were done by adjusting the earlier values by a conversion factor that is commonly used for non-downslope winds. Recent investigations indicate that this is likely conservative for downslope winds, resulting in

higher-than-optimal predicted wind speeds for the new longer MRIs. Current analysis techniques, with the additional ASOS (Automatic Surface Observation Station) wind data that has been available since the mid-1990s, allows storm separation techniques to build a more accurate wind climate model showing the relative contribution of different storm types at different MRIs. This should allow design wind speeds in large portions of the northern Front Range SWR to be reduced from current values and align better with reality.

The primary purposes of the currently proposed study are twofold:

To update the current Front Range Wind Speed map using state-of-the-art analysis techniques with the additional data available since the original study to refine design winds speeds to be adopted within the region.

To extend the map south to cover the entire Front Range, including additional major population centers such as Colorado Springs.

The overall outcome will be to enable improved sustainability and economy in construction while ensuring that the appropriate reliability and resiliency goals are met.

January 1, 2025 - December 31, 2025

2025 SEAC General Meeting Sponsorship

2025

SEAC General Meeting Sponsorship includes:

Exhibit table at the General Meeting or slide recognition on webinar Full page company advertisement in SEAC newsletter during the month of sponsorship 2 complimentary registrations

One minute microphone time

Sponsorships are \$1,000 per meeting. Limit two sponsorships per meeting. Exclusive sponsorships of a meeting is \$1,500.

April 7, 2025 - May 30, 2025

2025 SEAC Project Design Awards

Applications Due By May 30, 2025.

CATEGORIES:

New Buildings, Non-residential New Buildings, Residential Forensic/Renovation/Retrofit/Rehabilitation Structures

JUDGING CRITERIA:

Creativity of structural design (20%)
Complexity of criteria or unique problems (20%)
Innovative application of new or existing materials or techniques (20%)
Commitment to sustainability through efficient use of materials, resilience, circular economy principles, or embodied carbon reduction (20%)
Ingenuity of design for constructability challenges and efficient use of labor (20%)

ADDITIONAL INFORMATION:

Certificate of Occupancy must be issued between January 1, 2024 – May 30, 2025.

Projects may be resubmitted if they did not previously win a SEAC Project Award.

Stamping engineer must be SEAC member.

Emphasis will be given to Colorado projects in the case of a tie.

Emphasis will not be given to project size.

Each firm can only win one award.

SEAC Board of Directors will pick up to three finalists in each category.

Finalists will have an opportunity for a three-minute presentation of their project after the General Meeting on July 17, 2025.

SEAC leaderships will vote on category winners; SEAC leadership include the Board of Directors, committee chairs and vice-chairs, delegates, and ambassadors. SEAC Board of Directors will select "Best Overall Project".

APPLICATION AND SCHEDULE INFORMATION:

Applications are due May 30, 2025.

Application fee is \$50 to be paid at the time of submission.

Finalists will be announced after the General Meeting on July 17, 2025. Category winners will be notified via email prior to the Annual Meeting. Winners will be presented their plaque and the "Best Overall Project" will be announced at the Annual Meeting.

April 18, 2025 SEAC Building Department Committee Meeting

S. A. Miro, Inc.

4582 S. Ulster St. Ste 750

Denver, CO 80237

03:30 PM - 04:30 PM MST

To join this committee meeting virtually contact Chad Mitchell at cmitchell@samiro.com

April 21, 2025 SEAC May Newsletter Deadline

Newsletter Deadline

April 22, 2025 SEAC Sustainable Design Committee Meeting

Martin/Martin Consulting Engineers

12600 W. Colfax Ave Denver, CO 80215

01:15 PM - 02:15 PM MST

Contact committee chair Michael Lyons, Martin/Martin Inc. mlyons@martinmartin.com if

you are interested in attending.

April 22, 2025 SEAC YMG Tour & Pour

225 E Bayaud Ave Denver, CO 80209

04:00 PM - 06:00 PM MST

April 24, 2025 SEAC SE3 Committee Meeting

02:00 PM - 03:00 PM MST

May 1, 2025 SEAC Board of Directors Meeting

Zoom

08:00 AM - 09:00 AM MST

Contact SEAC Administrator Dawn Miller at administrator@seacolorado.org if you are

interested in attending.

May 5, 2025 SEAC YMG Committee Meeting

12:00 PM - 01:00 PM MST

If you are interested in joining, contact Kamryn Froehle at ymg@seacolorado.org to

receive the TEAMS invite.

May 6, 2025 YMG CPP Wind Facility Tour

CPP Wind Facility 7365 Greendale Rd Windsor, CO 80550

04:00 PM - 06:00 PM MST

Join us for a tour of the CPP wind testing facility. CPP Wind operates two

state-of-the-art wind tunnels in their advanced laboratory, providing sophisticated wind

load data for structural design. No PPE needed.

May 9, 2025 SEAC Education Committee Meeting

Virtual

08:00 AM - 09:00 AM MST

If you would like to join the monthly Education Committee meeting, please email the

Education Committee at Education@seacolorado.org

May 15, 2025 SEAC Business Management Committee Panel Presentation

PPA Event Center 2105 Decatur Street Denver, CO 80211

07:30 AM - 09:00 AM MST

May 22, 2025 SEAC SE3 Committee Meeting

02:00 PM - 03:00 PM MST

May 26, 2025 SEAC June E-News Deadline

E-News Deadline

June 2, 2025 SEAC YMG Committee Meeting

12:00 PM - 01:00 PM MST

If you are interested in joining, contact Kamryn Froehle at ymg@seacolorado.org to

receive the TEAMS invite.

June 3, 2025 SEAC Seismic Committee Meeting

Virtual

08:00 AM - 09:00 AM MST

Contact Rob Jackson at rob.jackson@amentum.com for TEAMS link.

June 3, 2025 SEAC Sustainable Design Committee Meeting

Virtual

01:15 PM - 02:15 PM MST

Contact committee chair Michael Lyons, Martin/Martin Inc. mlyons@martinmartin.com if

you are interested in attending.

June 5, 2025 SEAC Board of Directors Meeting

Martin/Martin Consulting Engineers

12499 West Colfax Ave Lakewood, CO 80215

08:00 AM - 09:00 AM MST

Contact SEAC Administrator Dawn Miller at administrator @seacolorado.org if you are

interested in attending.

June 10, 2025 SEAC Existing Structures Committee Meeting

J.R. Harris & Company

1775 Sherman Street Suite 2000

Denver, CO 80203

08:00 AM - 09:30 AM MST

For the virtual link to this committee meeting contact Ben Cook at

ben.cook@jrharrisandco.com

June 12, 2025 SEAC Business Management Committee Meeting

Martin/Martin Consulting Engineers

12499 West Colfax Ave Lakewood, CO 80215

07:30 AM - 09:00 AM MST

June 13, 2025 SEAC Education Committee Meeting

Virtual

08:00 AM - 09:00 AM MST

If you would like to join the monthly Education Committee meeting, please email the

Education Committee at Education@seacolorado.org

June 19, 2025 SEAC NOCO Meeting

Front Range Community College 4616 Shields Street Room #552

Fort Collins, CO 80526 07:30 AM - 09:00 AM MST

June 20, 2025 SEAC Building Department Committee Meeting

S. A. Miro, Inc.

4582 S. Ulster St. Ste 750

Denver, CO 80237

03:30 PM - 04:30 PM MST

To join this committee meeting virtually contact Chad Mitchell at cmitchell@samiro.com

June 23, 2025 SEAC July Newsletter Deadline

Newsletter Deadline

June 26, 2025 **2025 SEAC Summer Social**

Viewhouse Ballpark 2015 Market St. Denver, CO 80205

04:30 PM - 07:30 PM MST

July 7, 2025 SEAC YMG Committee Meeting

12:00 PM - 01:00 PM MST

If you are interested in joining, contact Kamryn Froehle at ymg@seacolorado.org to

receive the TEAMS invite.

July 10, 2025 SEAC Board of Directors Meeting

Zoom

08:00 AM - 09:00 AM MST

Contact SEAC Administrator Dawn Miller at administrator@seacolorado.org if you are

interested in attending.

July 11, 2025 SEAC Education Committee Meeting

Virtual

08:00 AM - 09:00 AM MST

If you would like to join the monthly Education Committee meeting, please email the Education Committee at Education@seacolorado.org

July 17, 2025 SEAC NOCO Meeting

Front Range Community College 4616 Shields Street Room #552

Fort Collins, CO 80526 07:30 AM - 09:00 AM MST

July 28, 2025 SEAC August E-News Deadline

E-News Deadline

August 4, 2025 SEAC YMG Committee Meeting

12:00 PM - 01:00 PM MST

If you are interested in joining, contact Kamryn Froehle at ymg@seacolorado.org to

receive the TEAMS invite.

August 5, 2025 SEAC Seismic Committee Meeting

Virtual

08:00 AM - 09:00 AM MST

Contact Rob Jackson at rob.jackson@amentum.com for TEAMS link.

August 7, 2025 SEAC Board of Directors Meeting

Martin/Martin Consulting Engineers

12499 West Colfax Ave Lakewood, CO 80215

08:00 AM - 09:00 AM MST

Contact SEAC Administrator Dawn Miller at administrator@seacolorado.org if you are

interested in attending.

August 8, 2025 SEAC Education Committee Meeting

Virtual

08:00 AM - 09:00 AM MST

If you would like to join the monthly Education Committee meeting, please email the

Education Committee at Education@seacolorado.org

August 12, 2025 SEAC Existing Structures Committee Meeting

J.R. Harris & Company

1775 Sherman Street Suite 2000

Denver, CO 80203

08:00 AM - 09:30 AM MST

For the virtual link to this committee meeting contact Ben Cook at

ben.cook@jrharrisandco.com

August 14, 2025 SEAC Business Management Committee Meeting

Martin/Martin Consulting Engineers

12499 West Colfax Ave Lakewood, CO 80215

07:30 AM - 09:00 AM MST

August 15, 2025 SEAC Building Department Committee Meeting

S. A. Miro, Inc.

4582 S. Ulster St. Ste 750

Denver, CO 80237

03:30 PM - 04:30 PM MST

To join this committee meeting virtually contact Chad Mitchell at cmitchell@samiro.com

August 21, 2025 SEAC NOCO Meeting

Front Range Community College 4616 Shields Street Room #552

Fort Collins, CO 80526 07:30 AM - 09:00 AM MST

August 25, 2025 SEAC September Newsletter Deadline

Newsletter Deadline

August 26, 2025 SEAC Sustainable Design Committee Meeting

Virtual

01:15 PM - 02:15 PM MST

Contact committee chair Michael Lyons, Martin/Martin Inc. mlyons@martinmartin.com if

you are interested in attending.

September 1, 2025 SEAC YMG Committee Meeting

12:00 PM - 01:00 PM MST

If you are interested in joining, contact Kamryn Froehle at ymg@seacolorado.org to

receive the TEAMS invite.

September 4, 2025 SEAC Board of Directors Meeting

Zoom

08:00 AM - 09:00 AM MST

Contact SEAC Administrator Dawn Miller at administrator @seacolorado.org if you are

interested in attending.

September 18, 2025 SEAC NOCO Meeting

Front Range Community College 4616 Shields Street Room #552

Fort Collins, CO 80526 07:30 AM - 09:00 AM MST

September 22, 2025 SEAC October E-News Deadline

E-News Deadline

October 2, 2025 SEAC Board of Directors Meeting

Martin/Martin Consulting Engineers

12499 West Colfax Ave Lakewood, CO 8021508:00 AM - 09:00 AM MST

Contact SEAC Administrator Dawn Miller at administrator@seacolorado.org if you are

interested in attending.

October 6, 2025 SEAC YMG Committee Meeting

12:00 PM - 01:00 PM MST

If you are interested in joining, contact Kamryn Froehle at ymg@seacolorado.org to

receive the TEAMS invite.

October 7, 2025 SEAC Seismic Committee Meeting

Virtual

08:00 AM - 09:00 AM MST

Contact Rob Jackson at rob.jackson@amentum.com for TEAMS link.

October 7, 2025 SEAC Sustainable Design Committee Meeting

Virtual

01:15 PM - 02:30 PM MST

Contact committee chair Michael Lyons, Martin/Martin Inc. mlyons@martinmartin.com if

you are interested in attending.

October 9, 2025 SEAC Business Management Committee Meeting

Martin/Martin Consulting Engineers

12499 West Colfax Ave Lakewood, CO 80215 07:30 AM - 09:00 AM MST

October 14, 2025 SEAC Existing Structures Committee Meeting

J.R. Harris & Company

1775 Sherman Street Suite 2000

Denver. CO 80203

08:00 AM - 09:30 AM MST

For the virtual link to this committee meeting contact Ben Cook at

ben.cook@jrharrisandco.com

October 16, 2025 SEAC NOCO Meeting

Front Range Community College 4616 Shields Street Room #552

Fort Collins, CO 80526 07:30 AM - 09:00 AM MST

October 17, 2025 SEAC Building Department Committee Meeting

S. A. Miro, Inc.

4582 S. Ulster St. Ste 750

Denver, CO 80237

03:30 PM - 04:30 PM MST

To join this committee meeting virtually contact Chad Mitchell at cmitchell@samiro.com

October 27, 2025 SEAC November Newsletter Deadline

Newsletter Deadline

October 30, 2025 SEAC Board of Directors Meeting

Zoom

08:00 AM - 09:00 AM MST

Contact SEAC Administrator Dawn Miller at administrator@seacolorado.org if you are

interested in attending.

November 3, 2025 SEAC YMG Committee Meeting

12:00 PM - 01:00 PM MST

If you are interested in joining, contact Kamryn Froehle at ymg@seacolorado.org to

receive the TEAMS invite.

November 18, 2025 SEAC Sustainable Design Committee Meeting

Virtual

01:15 PM - 02:15 PM MST

Contact committee chair Michael Lyons, Martin/Martin Inc. mlyons@martinmartin.com if

you are interested in attending.

November 20, 2025 SEAC NOCO Meeting

Front Range Community College 4616 Shields Street Room #552

Fort Collins, CO 80526 07:30 AM - 09:00 AM MST

November 24, 2025 SEAC December E-News Deadline

E-News Deadline

December 1, 2025 SEAC YMG Committee Meeting

12:00 PM - 01:00 PM MST

If you are interested in joining, contact Kamryn Froehle at ymg@seacolorado.org to

receive the TEAMS invite.

December 2, 2025 SEAC Seismic Committee Meeting

Virtual

08:00 AM - 09:00 AM MST

Contact Rob Jackson at rob.jackson@amentum.com for TEAMS link.

December 9, 2025 SEAC Existing Structures Committee Meeting

J.R. Harris & Company

1775 Sherman Street Suite 2000

Denver, CO 80203

08:00 AM - 09:30 AM MST

For the virtual link to this committee meeting contact Ben Cook at

ben.cook@jrharrisandco.com

December 19, 2025 SEAC Building Department Committee Meeting

S. A. Miro, Inc.

4582 S. Ulster St. Ste 750

Denver, CO 80237

03:30 PM - 04:30 PM MST

To join this committee meeting virtually contact Chad Mitchell at cmitchell@samiro.com