The NGA member community is 1,700 companies strong and represents all aspects of the glazing and glass building products industry. We are contract glaziers. We are full-service glass companies. We are fabricators, manufacturers and suppliers.

As an organization that is driven by a future in which glass is the material of choice, this annual report summarizes key points of the last 18 months as aligned by NGA’s four goals: educate, promote, advocate and grow. As you read through this report, you will learn more about how these goals are steering our daily work to help you grow successful companies.

The unique pandemic challenge of 2020 was met by member companies that drove hard to produce and install products to mitigate the disease impacts while also continuing development of many other innovative products and services that elevate safety and quality, add long-term value, meet and exceed code requirements, and improve overall well-being.

This report reminds us of how the glazing and glass building products industry continues to address the needs of the built environment, working through the association and as individual companies.

With your support and engagement, the NGA will continue pushing forward with our vision to enhance the spaces where people live, play, learn, work and heal with glass.

Thank you for your part in this story.

Nicole Harris
President and CEO
National Glass Association
NGA Past
NGA was founded in 1948 and has continually served the greater glass community since that time. On February 1, 2020, NGA commemorated the two-year anniversary of its combination with the Glass Association of North America (GANA). A significant amount of collaboration, change, refinement and (re) invention has already occurred in this short amount of time. Notably, the progress towards the betterment of the glazing and glass building products industry has only grown and improved.

NGA Present
Faced with the challenging environment of 2020 and looking forward to 2021, NGA and its Board of Directors remain more committed than ever to our purpose, vision and goals. We continue to provide resources to protect, preserve and grow our industry, and help our members’ companies succeed.

NGA Future
The NGA Foundation a 501(c)3 nonprofit organization where tax-deductible donations can be made for training the industry and educating consumers about the many ways glass and glazing contribute to a safe, healthy, sustainable, and inspiring built environment.

Vision
We envision a future in which glass is the material of choice to enhance spaces where people live, play, learn, work and heal.

Core Purpose
NGA is the authority and resource for its members and the industry to grow successful businesses and to champion the benefits of glazing and glass building products.

Goals
Educate
Drive excellence, safety and results through education and training.

Promote
Elevate the image of glass as a safe, healthy, sustainable and inspiring building product and advance the industry as a viable, thriving and exciting career path.

Grow
Build NGA’s membership to develop influence, impact and results.

One Voice of the Industry:
The Path to Becoming the Glass & Glazing Authority

Industry Leaders
NGA appreciates the generosity in time and expertise given by its board of directors, which represents the entire glazing and glass building products supply chain, and its volunteers who make up NGA’s committees and task groups. Learn more about your 2020-2021 leaders:

NGA Board of Directors
NGA Committees

NGA Board of Directors

NGA Committees

EDUCATE

verb
to drive excellence, safety and results through education and training.

NGA’s resources for education and training take several forms to meet the needs of its members and stakeholders when and where they’re at – whether at a jobsite, on the plant floor or in an office.
MyGlassClass.com continues to be the best and most practical approach to turning glass and glazing industry trainees into valuable personnel by boasting more than 60 courses for the industry. Nearly 3,000 users have been trained to date using the MyGlassClass.com platform.

**Milestones:**

**May 2020:** Thanks to generous grants from the Friese Foundation and other donors, NGA’s MyGlassClass.com online training courses were made available to the glass and glazing industry at no charge during the month of May.

**June 2020:** Launch of three new or improved NGA-developed courses:
- Glazing Math Essentials
- Interpreting Common Documents
- How to Cut Glass: Best Practices

**Apprenticeship Program**

Developed in cooperation with contract glaziers, full-service glass companies, and glass & glazing technical experts, the NGA Glazier Apprentice Curriculum meets Department of Labor requirements for registered apprenticeship training. Currently in use in Utah, Colorado, Oklahoma and Connecticut, the glazier apprentice curriculum offers 430+ hours of learning to fulfill the classroom instruction component of most three-year apprenticeship programs. The curriculum is regularly reviewed and updated by the NGA Installing Committee. Learn more.

**MyGlassClass.com Snapshot**

<table>
<thead>
<tr>
<th>Number of courses</th>
<th>Users to date</th>
</tr>
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<tbody>
<tr>
<td>60+</td>
<td>3,000+</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Courses completed</th>
<th>Number of new students in 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>12,000</td>
<td>1,000+</td>
</tr>
</tbody>
</table>
When it comes to learning about glass, NGA is your authority and resource. We offer in-depth glass technical papers (GTPs) and easy-to-read Glass Information Bulletins (GIBs), business manuals, and papers written and developed by industry experts for fabricators, glaziers, suppliers and manufacturers, and others involved in glazing and glass building products. Many technical resources are available at no cost to members, and members save up to 50% on all manual, guides and books. Learn more at the NGA Store.

**Milestones:**

**2020:** NGA released six new and nine updated GTPs:

- **Brand new Installed Decorative Glass and General EPD Education GTPs released.**
- **Two new GTPs on how to view and measure color of decorative glazing products released.**
- **Publication of Introduction to Vacuum Insulating Glazing GTP announced.**
- **New GTP on security glazing.**
- **NGA releases new resource: Glass for Personal Protective Barriers.**
- **Six new GTPs for the glazing and glass building products industry.**
- **Glass Floors and Stairs GTP and Proper Procedures for Cleaning Architectural Glass Products.**

### NGA Store Snapshot

<table>
<thead>
<tr>
<th>GTPs</th>
<th>Downloads/purchases from the NGA Store in 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>90</td>
<td>4,192</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Manuals/Books/Guides</th>
<th>Members-Only Publications</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>29</td>
</tr>
</tbody>
</table>
June 2019
Thanks to the dedication of task group members, NGA published an updated Laminated Glazing Reference Manual.

September 2019
NGA published an updated Engineering Standards Manual through the work of industry contributors and task group members.

January 2020
Updated for the first time since 1999, NGA released the Heavy Glass Door Design Guide through the coordination of task group volunteers, industry suppliers and testing facilities.
WEBINARS

Thirsty Thursday
Quench your thirst for knowledge with NGA’s Thirsty Thursday webinar series. The 30 to 60-minute sessions are held the third Thursday of each month and cover a wide range of industry trends and technical issues. Go to the Thirsty Thursday Webinar Series Archives to see past recordings.

NOW and NEXT: Surviving the COVID-19 Crisis
In response to the coronavirus crises, NGA presented a webinar series entitled—NOW and NEXT: Surviving the COVID-19 Crisis—to provide actionable information on navigating uncertainty in the glass and fenestration industries. Recordings of these webinars are available to NGA members only in The NGA Store, under the Members Only category.

Milestones:

2020: Thirsty Thursday draws up to 300 attendees at its monthly webinars.

Milestones:
CONFERENCES & EVENTS

Held throughout the year, NGA’s conferences and GlassBuild America: The Glass, Window & Door Expo provide our member community—and the glass and fenestration industry at large—opportunities to come together for networking, education, committee meetings, and more.

Building Envelope Contractors (BEC) Conference
A mix of educational presentations, tabletop displays and plenty of networking time, BEC is geared primarily to glazing contractors, with supporting participation by fabricators and suppliers. A meeting of the NGA’s Installing Committee is also on the agenda.

Milestone:
March 2020: BEC Conference held in Nashville for the first time drawing a larger than expected attendance. Recap and video.

GPAD: Glass Processing Automation Days
Founded in 2014 by FeneTech Inc., GPAD is a unique two-day opportunity to investigate new and innovative technologies in the glass fabrication industry and discover the additional benefits of automation and integration.

Milestone
April 2019: NGA and FeneTech jointly announced that NGA will take over as organizer and host of future GPAD events. FeneTech will continue to be involved in future GPAD events and recognized as a “Founding Partner.”

NGA Glass Conference
Held twice annually, this is where like-minded business leaders gather to influence and advance the industry through our Forming, Fabricating, and Advocacy Committees activities.

Milestones:
January 2020: NGA announced new branding for its technical-focused conferences. NGA’s Annual and Fall Conferences will now be known as NGA Glass Conferences.
July 2020: In a response to the COVID-19 pandemic, NGA Glass Conference occurred online and drew some of our highest attendance with 500 total registrants and 317 architects reached.

August 2019 recap
January 2020 recap
July 2020 recap
GlassBuild America: The Glass, Window & Door Expo
As the largest annual tradeshow for the glass and fenestration industries in the Americas, GlassBuild features more than 450 exhibiting companies, networking and education.

**Milestones:**
**September 2019:** GlassBuild America in Atlanta featured its largest trade show floor in a decade and ranked 97th on Trade Show News Network (TSNN)’s Top 250 Trade Shows list in the United States for 2019.

**September 2020:** The in-person event is cancelled due to COVID-19 and reemerges online as GlassBuild Connect for the entire month of September with 330 exhibiting companies, 70 educational presentations, 17 AIA LUs available to architects, and several other industry organizations representing all facets of the industry joining the effort.

GlassBuild America 2019 recap
GlassBuild Connect 2020 recap

Glazing Executives Forum
This one-day conference, held in conjunction with GlassBuild America, brings leaders of contract glazing companies together to learn and share best business practices unique to installing companies. A meeting of the NGA’s Installing Committee is also held.

**Milestones:**
**2019-2020:** Glazing Executives Forum features the popular Annual Industry Economic Forecast, presented by Connor Lokar, ITR Economics.

2021 NGA Conferences & Events *(subject to change)*

**NGA Glass Conference: February**
This one-day event is taking place online on Feb. 9, featuring two sessions on future implications of the latest codes and standards development and networking activities.

**BEC Conference**
Happening in March, this BEC Conference program will focus on preparedness and efficiencies for your business and feature a meeting of the Installing Committee.

**NGA Glass Conference: Chicago**
To be held in July, this conference is where the brightest technical minds behind the glass and glazing industry gather.

**GlassBuild America**
Being held Sept. 13-15 in Atlanta, GlassBuild is the industry gathering place. The Glazing Executives Forum and an Installing Committee meeting will also take place.

More information on NGA’s Conferences
More information on GlassBuild America
FOR DESIGN PROFESSIONALS

AIA-approved Presentations
NGA is an approved AIA Provider of CES credits. Thanks to the involvement of our volunteer members, NGA has several approved presentations — for live in-person or online delivery — as part of its resource library. NGA members may use these presentations when connecting with the design community. Now is the time to stay in front of your stakeholders. Become an approved presenter and use NGA’s AIA-accredited presentations now to host live, virtual meetings.

Glass & Glazing Design Academy
NGA enters a second year hosting its Glass & Glazing Design Academy with Architectural Record. NGA’s accredited AIA presentations are available in an on-demand, multimedia format, available to architects and design professionals. **Explore the Academy.**

- Introduction to Decorative Glazing
- Protective Glazing 101
- Fire-Rated Glazing Today
- Reflected Solar Energy of Glazing Systems
- The Many Benefits of Laminated Glass in Design
- Critical Reasons to Specify Insulating Glass
- Multi-Cavity Insulating Glass Units
- Understanding Applications for Heat-Treated Glass
- The Many Benefits of Laminated Glass in Architectural Design

Glass and Metals: A Guide for Architects and Specifiers
This comprehensive guide combines all of the information in Glass Magazine’s “All About Glass and Metals” six-part series into one, easy-to-read report. The updated guide includes a new 6th series – The Architect’s Guide to Performance Solutions, as featured in the *April 2020 edition* of Glass Magazine.

Courses

| 2019 | NGA partners with Architectural Record to host the Glass & Glazing Design Academy |
| 2020 | 2,900 users and growing; top courses to date are: Understanding How Glazing Can Impact Safety and Fire Protection CEU Article, Key Advances in Fire-Rated Glazing, Navigating the World of Decorative Glass, Critical Reasons to Specify Insulating Glass, and The Many Benefits of Laminated Glass in Architectural Design. |

Users-to-date

| 10 | 2,900+ |
pro·mote

verb

Elevate the image of glass as a safe, healthy, and inspiring building product and advance the industry as a viable, thriving and exciting career path.

NGA maintains several avenues of engagement with our members, stakeholders and the industry. These include magazines, newsletters and websites.
Glass Magazine and Window + Door

Glass Magazine, the glass and glazing authority, delivers complete coverage of the architectural glass and metals industry. As the official publication of NGA, it serves glazing contractors, full-service glass companies, fabricators, manufacturers and architects.

Covering the entire residential fenestration industry, from source to sale, Window + Door is produced by the National Glass Association and is the official publication of GlassBuild America: The Glass, Window & Door Expo.

2019
NGA launched new, redesigned concepts for Glass Magazine and Window + Door. Featuring bold formats and new industry coverage, they now reflect the advanced direction of our industries.

2020
NGA launched new websites for glassmagazine.com and windowanddoor.com to provide content in more organized, accessible and mobile-friendly formats.

Milestones

Glass Magazine - Key Reports
- Top 50 Glaziers Report
- Top 50 Glaziers List
- Top Glass Fabricators Report
- Top Glass Fabricators List
- Float Glass Industry Report
- Industry Forecast Report

Window + Door - Key Reports
- Top Manufacturers Report
- Industry Pulse Report
- Automation Trendhunter Report
NGA Member Updates
NGA members receive updates twice per month to help keep them better informed on NGAs activities at a glance. The Member Update has been redesigned for 2021 for easier readability.

Most-clicked articles
- Downloadable Resource: Contracts 101 For Glaziers Amid Worksite Closures
- Fact Sheet: Do Your Employees Qualify for Paid Leave Due to COVID-19?
- NGA Releases New Resource: Glass for Personal Protective Barriers
- By the numbers: Top 10 Publications from the NGA Store
- NGA Welcomes New Boared Members
- Year-end Message from President & CEO Nicole Harris

COVID-19 Information and Resources
Sent out each month to NGA members, NGAs Advocacy & Technical team provide insights into how NGAs is promoting the use of glass in the built environment.

In response to COVID-19, NGA created a central hub of information, resources and original content from Glass Magazine and Window + Door dedicated to covering the constantly evolving pandemic and its effect on our industry.

NGA Advocacy & Technical Updates
Most-clicked articles:
- BEC Conference 2020 in Pictures
- At 2020 BEC Conference, Glaziers Look to Challenges and Opportunities Ahead
- Join Architects at NGA Glass Conference
- From the Fabricator: BEC Conference Recap 2020
- NGA Committees Year in Review
- VIDEO: BEC Conference 2020 Draws Largest Crowd in More than a Decade

Milestones


April - June 2020: NGA presents five NOW and NEXT: Surviving the COVID-19 Crisis webinars.

May 2020: Glass Magazine releases special issue: Essential COVID-19 Resources and Information for Glass and Glazing Companies
Window + Door releases special issue: Essential COVID-19 Resources and Information for Fenestration Companies

November 2020: Glass Magazine Innovation in Crisis and Window + Door Innovation in Crisis presented to recognize the extraordinary innovation among companies during the pandemic.
 Advocate

To defend and promote the glass industry.

NGA's advocacy and technical initiatives respond to the relentless, ever-changing challenges to our industry. NGA is the glass and glazing authority; we are a resource for our members and the industry at large. We thank our volunteer leaders, industry partners and expert consultants and glazing is at the forefront of all discussions impacting building construction.
**Advocacy One-Pagers**

The purpose of these new documents is to format advocacy requests related to glass industry issues into a quick-reference format to help stakeholders and legislators easily understand the issues at hand.

**Infusing Legislation with Advocacy One-Pagers**

When the California Department of General Services establishes the maximum Global Warming Potential for Flat Glass allowed for public works projects, they will have NGA’s advocacy one-pager for reference. Our request to set the GWP at 1716 kg CO2 eq is influential because it is based on a collaboration among flat glass manufacturers.

Visit [glass.org/about-nga/advocacy](http://glass.org/about-nga/advocacy).
Green New Deal
NGA's Advocacy Committee is prioritizing elements as addressed in the Green New Deal, as presented by the City of New York with its OneNYC 2050 plan, in order to formulate regular and strategic responses to ensure glass is continued to be viewed as the material of choice and utilized in new and retrofit construction.

Read [NGA's response](#) to Green New Deal, which also includes:
- NGA-produced [distillation of the OneNYC2050 report](#)
- Glass Magazine [editorial](#)
NGA’s Advocacy Reach

**AGMCC**
Architectural Glass and Metal Certification Council
Annual Meeting

**ASHRAE**
90.1 and 189.1 Meetings

**ICC SEPHCAC**
International Codes Council Sustainability, Energy & High Performance Code Action Committee

**ICC BCAC**
International Codes Council Building Code Action Committee

**FGIA**
National Fire Protection Agency

**AIA**

**BEC Conference**
GlassBuild America

**ASTM**
E06

**CSI CONSTRUCT**

**ISO TC 160**
International Organization for Standardization

**NGA Glass Conference**

**NGBS**
National Green Building Standard

**NFRAE**
National Fenestration Rating Council Fall Meeting

**NCI**
National Council of Interior Designers

**ASTM**
E06/F12

**Glasstec**

**SFRC**
Safety Margin Council

**ICC BCAC**
90.1 Interim Meetings

**NFC**
National Fenestration Council

**AIA**

**NGBS**
National Green Building Standard
NGA continues to demystify sustainability initiatives including environmental product declarations, life cycle assessments and more.

The Building Enclosure Product Cycle infographic is intended to provide visual explanation of material processing and service life, and differentiate between cradle to cradle, cradle to grave, and cradle to gate.

In addition, NGA’s Thirsty Thursday - The Business Impact of EPDs (and what's new with AB 262) elaborates on these sustainability topics and address the ‘why’ of understanding these concepts.

- View webinar recording
- Download handouts

NGA’s Forming Committee issued public comments on California AB 262, voicing concerns about the bill's technical flaws which will affect the flat glass manufacturers and the industry. NGA also responded regarding facility specific data for the implementation of CA AB262.

Download NGA’s Building Compliance FAQs to learn more about the use of glass as it relates to CA AB262, EPDs, PCRs and more.
To build NGA’s membership to develop influence, impact and results.

The NGA member community is 1,700 companies strong and represents all aspects of the glazing and building glass industry. We take pride in being a resource to our members to help grow successful businesses.
NGA Membership Snapshot

By Company Type

- Suppliers: 19%
- Fabricating: 23%
- Installing: 58%

By Location

NGA members span across the U.S. & Canada – including members in Alaska, Hawaii, Puerto Rico and Guam.

NGA has members in 22 other countries across the globe.

NGA-affiliated Chapters

The NGA Chapter Affiliation Program supports regional glass associations through engagement in events, promotion and sponsorship of chapter activities, and offering NGA benefits to chapter members.

NGA was scheduled to attend the 2020 Mid-Atlantic Glass Association Glass Expo, the Texas Glass Association-sponsors Glass TEXpo, and GlassDay New England, hosted by the Connecticut and Massachusetts Glass Dealers Associations, and will resume participation in chapter-sponsored regional trade shows as opportunities become available.

Milestones:

- 2020: NGA welcomed two new affiliated chapters - Utah Glass Association and Colorado Glazing Contractors Association
- April 2020: The Washington Glass Association hosted NGA President & CEO Nicole Harris as the featured speaker at their May 2020 meeting, providing an industry update and overview of NGA resources and benefits
Committees & Task Groups
NGA volunteers contributed their time and resources collaborating to create technical content for the industry. While individual volunteers only need to spend up to an hour a week on NGA tasks, NGA’s total committee activities really add up.

Number of hours individual volunteers spend per week
1

Number of task group meetings attended over the course of the year
54

Number of total combined hours spent by volunteers annually
435

Volunteer Appreciation
NGA regularly celebrates the impact of volunteer service and the power of volunteers to come together to tackle tough challenges and build a stronger, more resilient community. For NGA, our community is the glazing and glass building products industry. We are grateful to the members who lend their time, talent, voice and support to the initiatives of the association.
NGA presented two membership awards in 2020 in honor of service, volunteerism and the betterment of the industry.

The **C. Gregory Carney Award** is the highest honor the Association has to give. The award was established in 2014 after the passing of Greg Carney, who served as Glass Association of North America (GANA) Technical Director for over two decades. It is an award that is for an individual who is involved and advocates for the industry and demonstrates the Association's mission and values within the industry: doing what is right for the industry as a whole, not what is one-sided or popular.

The **NGA Volunteer of the Year** award nominee must be an NGA member and have made significant contributions to the Association or profession in the past year.

**Awards**

**C. Gregory Carney Award**

A. William Lingnell

Lingnell Consulting

**Volunteer of the Year 2020**

Sylvain Denis
The challenges faced in 2020 underscore our industry’s resourcefulness and willingness to adapt. NGA is proud to be part of this community. In 2021, we will continue to advance our goals and purpose as we focus on new opportunities to strengthen glazing and glass building products businesses.