



Stewart

Speaker Bio

Stewart Jeske, P.E. – Founder & President, JEI Structural Engineering

Stewart Jeske, P.E., is the founder and president of **JEI Structural Engineering**, a Kansas City–based firm recognized nationally for its expertise in glass and glazing design. Stewart has built one of the industry’s most respected “P.E. Dream Teams”—a group of engineers and drafters delivering **hundreds of projects each year** with a **74% client retention rate**, providing façade engineering services across the United States and in select international markets.

With **Professional Engineering (P.E.) licenses in 48 states**, Stewart leads projects ranging from high-rise façades to specialty glass structures. His portfolio includes **structural glass engineering for the Liberty Bell Pavilion**, large-span glass walls, and complex designs for **zoo and aquarium animal enclosures** where safety, visibility, and durability are critical. JEI’s everyday expertise spans **curtain walls, storefront systems, skylights, glass balconies, glass floors, and glass canopies**—any project requiring unique knowledge of glass structure, connections, and performance.

Because **U.S. universities teach engineering students to design in steel, wood, and concrete—but not glass or glazing—expertise in this field is rare**. Stewart and the JEI Dream Team have built their knowledge through decades of hands-on project experience, becoming a go-to resource for architects, contractors, and manufacturers seeking to push the limits of what glass can do.

Stewart is the **owner of four U.S. patents**, including two related to façade system support, and is a sought-after **continuing education presenter** on glazing system design. For the past three years, he has also authored “*Engineered Connections*” in **USGlass Magazine**, sharing technical insights, best practices, and forward-looking perspectives with thousands of industry professionals.

Before founding JEI, Stewart served as a **Senior Structural Engineer at Burns & McDonnell** and as a **Base Civil Engineer in the U.S. Air Force**. He earned his **B.S. in Architectural Engineering** from Kansas State University and his **M.S. in Civil Engineering** from the University of Missouri–Kansas City.

From landmark cultural sites to complex specialty structures, Stewart’s career reflects a commitment to **innovation, constructibility, and delivering building envelopes that are as durable and safe as they are visually striking**.



Designing for the Wild: Glass & Glazing Strategies for Zoo Enclosures

When you put 600 pounds of muscle, claws, and curiosity behind a pane of glass, the stakes are high. Whether it's a gorilla charging, a big cat pouncing, or a sea lion slamming into the viewing window, engineers, architects, and zoo builders face a unique challenge: balancing crystal-clear views with uncompromising safety.

In this session, we'll explore the critical considerations that drive enclosure glazing design — from material choices to installation details — and why zookeeper input on animal size, speed, and behavior is just as important as engineering formulas.

Key talking points include:

1. Safety Standards & Impact Resistance

- How to determine the right safety factor (SF4 vs SF10) for each animal and enclosure type.
- Why “impact load” data from keepers is crucial for selecting the correct glass makeup.

2. Glass Construction & Materials

- Typical builds for large predators and high-impact species.
- Glass vs. acrylic — clarity, scratch resistance, and strength trade-offs.
- Interlayer performance (PVB vs Sentry Glass) under different climates.

3. Structural Support & Edge Conditions

- The difference between 4-sided, 3-sided, and 2-sided support.
- Submerged and non-submerged perimeter conditions.

4. Real-World Variables

- Foreign object impacts — from rocks to enrichment toys.
- Sealant protection from animal tampering.
- Installation challenges for large, heavy panels in new builds vs. retrofits.

You'll leave with a better understanding of how **animal behavior, engineering codes, and material science intersect** to create safe, durable, and awe-inspiring habitats that keep visitors coming back — and everyone inside and outside the glass protected.



Hidden Forces: How Building Movement Creates Big Problems in Glass & Glazing

Target: Architects, Engineers, Glazing Contractors, Manufacturers

Presented by Stewart Jeske, P.E., Founder & President, JEI Structural Engineering

Most building construction sequences unintentionally set the stage for **building movement issues**—and too often, they're **overlooked by engineers, architects, and glazing contractors** until it's too late. The result? Leaks, premature system failure, warranty disputes, and costly repairs.

In this **fast-paced, practical workshop**, Stewart Jeske, P.E., draws on decades of façade engineering experience to reveal how **construction sequencing, building codes, and manufacturer “small print”** can combine to create hidden risks in curtain wall, storefront, and specialty glazing systems. Participants will learn:

- How to identify and account for **structural and thermal building movement** before it damages glass and glazing systems
- Common **design and bid pitfalls** that set projects up for long-term problems
- How to interpret and respond to **manufacturer disclaimers** that shift liability to contractors and design teams
- Real-world case studies where early awareness could have saved hundreds of thousands in repairs

With a **broad and diverse portfolio of façade projects completed each year** and a **74% client retention rate**, Stewart brings **practical, field-tested strategies** you can apply immediately—whether you're an architect detailing a curtain wall, an engineer calculating structural glass supports, a manufacturer drafting specifications, or a glazing contractor preparing a bid.

Video Resources Included:

- [*Storefront Building Movement Liability Issues for Architects & Glazing Contractors*](#)
- [*Building Movement Issues in Curtain Wall for Glazing Contractors & Engineers*](#)
- [*Glazing Contractors – Bid Issues with Building Movement*](#)

By the end of the session, you'll know exactly **where and how to address building movement early in the design and construction process**—and how to protect your projects, your profits, and your reputation from preventable failures.



Changing Façade Connections to Steel Structures: A Modern Alternative to 70-Year-Old Details

Presented by Stewart Jeske, P.E., Founder & President, JEI Structural Engineering

For more than **70 years**, structural details at the slab edge of steel structures have remained virtually unchanged. While reliable, the **traditional bent plate edge-of-slab detail** comes with limitations—slow installation, significant field welding, and less-than-optimal load paths.

In this session, Stewart Jeske, P.E., introduces a **new façade attachment system** that redefines how steel structures connect to curtain wall and façade systems. Attendees will learn:

- How the **new edge-of-slab system** provides a **more efficient load path** and greater strength than conventional bent plate details
- How faster façade enclosure translates into **shortened construction schedules** and **budget savings**
- Why this system **eliminates most field welding** and improves safety on-site
- Real-world **case studies** of the system currently in use on active construction projects
- A **comparative analysis** between the new system and conventional bent plate designs—covering structural performance, installation efficiency, and cost impacts

The result? **Better structural performance, faster project delivery, and reduced installation costs**—without sacrificing safety or design flexibility.

Supplemental Resource:

Video Link: <https://www.jedgeanchor.com/videos>



Connections – Best Practices & Solving “Ugly Details” in Façade Design

Presented by Stewart Jeske, P.E., Founder & President, JEI Structural Engineering

In façade engineering, the connection points between the building structure and the cladding system are where **design intent meets construction reality**—and sometimes, the two don’t align. Many contract drawings provide minimal connection detail, leaving contractors and installers to “figure it out” in the field. The result? Delays, cost overruns, and potential performance failures.

In this **deep-dive technical session**, Stewart Jeske, P.E., shares **best practices for façade-to-structure connections** and takes a candid look at real-world “ugly details” that have surfaced on projects. Attendees will learn:

- **Key principles** for designing safe, efficient, and constructible façade connections
- How to spot **problematic or incomplete details** on contract drawings before they cause issues on-site
- Strategies for **resolving poor or missing connection details** without compromising schedule or budget
- Examples of **connection solutions** that improve performance, simplify installation, and meet both design and code requirements

Through case studies and photographic examples, Stewart will walk you through connection challenges from the field—showing exactly what to look for and how to turn an “ugly detail” into a **smart, durable, and code-compliant solution**.



Reducing Thermal Bridging at Façade Connection Points

Presented by Stewart Jeske, P.E., Founder & President, JEI Structural Engineering

Even the highest-performing glazing systems can fall short of their thermal goals if **connection points** between the façade and structure aren't designed with energy performance in mind. **Thermal bridging** at these locations can compromise insulation values, create condensation issues, and increase long-term energy costs.

In this session, Stewart Jeske, P.E., introduces strategies to reduce thermal bridging at façade connection points—focusing on how the new [Edge-Tie System](#) offers a structural connection that supports both **load performance** and **thermal efficiency**. Attendees will learn:

- How thermal bridging occurs at common façade connection details
- The energy and comfort impacts of poorly designed connection points
- Methods for integrating **thermal breaks** without compromising structural integrity
- How the [Edge-Tie Anchor System](#) addresses both strength and thermal performance in one solution
- Real-world examples of thermal improvement through connection redesign

By combining structural engineering expertise with energy-conscious detailing, you'll see how to **improve building performance from the inside out**—starting at the connection points.

Supplemental Resource:

Available at [Video Link](#)



Glazing System Delegated Design: What Every Design Professional Needs to Know

Target: Architects, Glazing Contractors, Structural Engineers

Presented by Stewart Jeske, P.E., Founder & President, JEI Structural Engineering

Delegated design for glazing systems is a critical process that requires balancing **architectural intent**, **structural performance**, and **manufacturer system capabilities**. Yet, too often, gaps in communication or unclear submittal requirements lead to costly changes, delays, or underperforming systems.

In this session, Stewart Jeske, P.E., outlines the **essential knowledge** architects, glazing contractors, and structural engineers need to effectively manage and review delegated design submittals for **curtain wall, storefront, and structural glass systems**. Attendees will learn how to:

- Interpret and preserve **architectural vision** while meeting performance and safety standards
- Account for **building movement** and its impact on glazing system design
- Recognize **manufactured system limitations** and avoid over-specification
- Evaluate **design loads** and confirm compliance with applicable codes and standards
- Review delegated design submittals with a focus on **connection details, tolerances, and constructibility**
- Identify **installation method implications** early in the design review process

With decades of experience in façade engineering and a **broad portfolio of glazing system projects nationwide**, Stewart brings practical, field-tested insights on how to protect project budgets, schedules, and long-term performance when delegated design is involved.

Supplemental Video Resources:

- [*Storefront Building Movement Liability Issues for Architects & Glazing Contractors*](#)
- [*Building Movement Issues in Curtain Wall for Glazing Contractors & Engineers*](#)
- [*Glazing Contractors – Bid Issues with Building Movement*](#)



Glass Guardrail & Windscreen Engineering: Deflection, Design, and Performance

Presented by Stewart Jeske, P.E., Founder & President, JEI Structural Engineering

Designing **glass guardrails** and **glass wind screens** often presents a challenge—especially when it comes to selecting **appropriate deflection limits**. While some project specifications clearly define performance criteria, many leave these critical requirements unstated, creating uncertainty for both engineers and installers.

In this session, Stewart Jeske, P.E., walks through the **engineering, code, and installation considerations** that impact the safety, stability, and aesthetics of glass railing systems. Attendees will learn:

- How to determine **deflection limits** when project specifications are incomplete or silent
- Key differences in performance expectations for **glass guardrails** vs. **glass wind screens**
- Special considerations for **point-supported glass** systems, including hardware selection and connection detailing
- Why some handrails feel “wobbly” even when they meet code requirements—and what can be done to improve user perception and comfort
- Best practices for balancing **structural integrity, visual clarity, and constructibility** in guardrail design

With decades of façade and specialty glass engineering experience, Stewart offers **practical, field-proven guidance** to help ensure glass guardrail and windscreen designs are both **code-compliant** and **user-friendly**.

Supplemental Resource:

[Glass Handrail Engineering Design](#)