



Help Keep Danger Out
BRING 3M IN

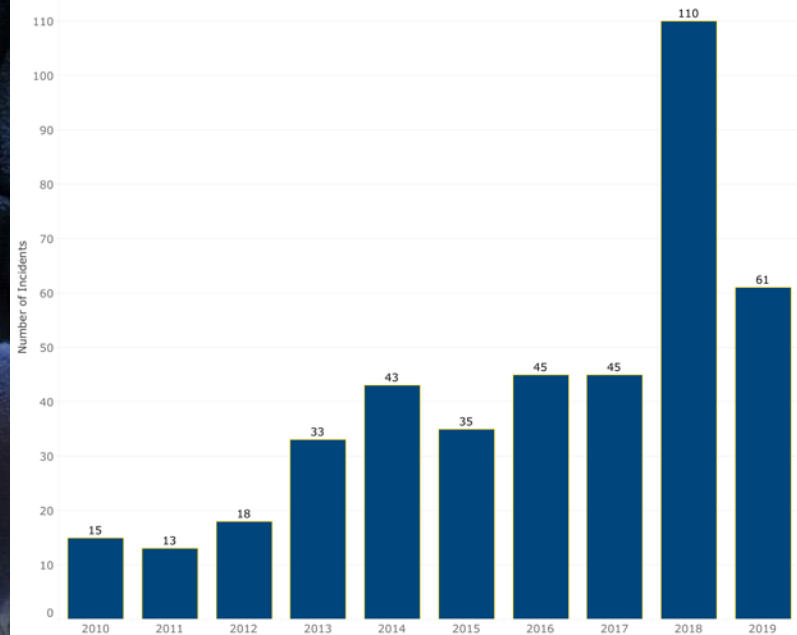


Why Safety and Security Film?

Incidents by Year

INCIDENTS BY YEAR

Based on publicly available data from 2010-present

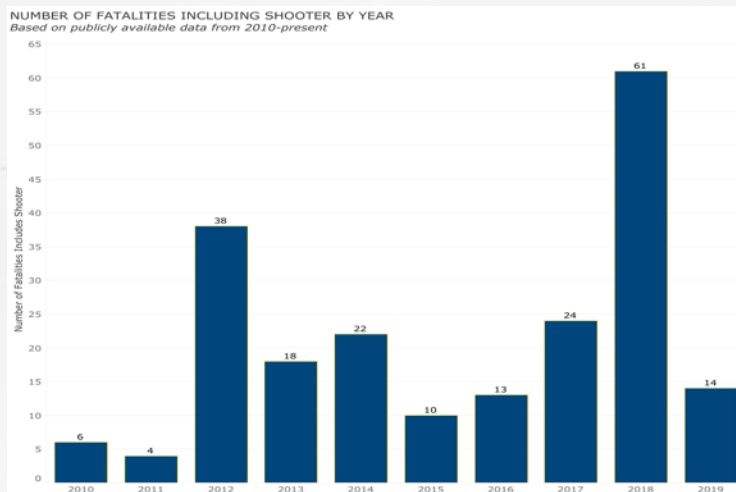


- Center for Homeland Defense and Security

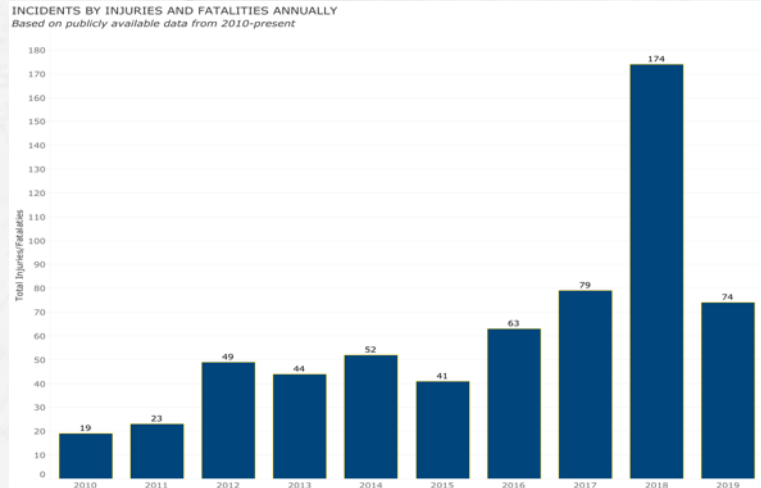
School Shootings Have Risen

- 2018 was the worst year in four decades for school shootings, with 110 reported incidents.
- Schools have increased their focus on hardening their facilities against this violence.
- State and Federal mandates are requiring schools to take security measures.

Fatalities by Year



Incidents with Injuries & Fatalities

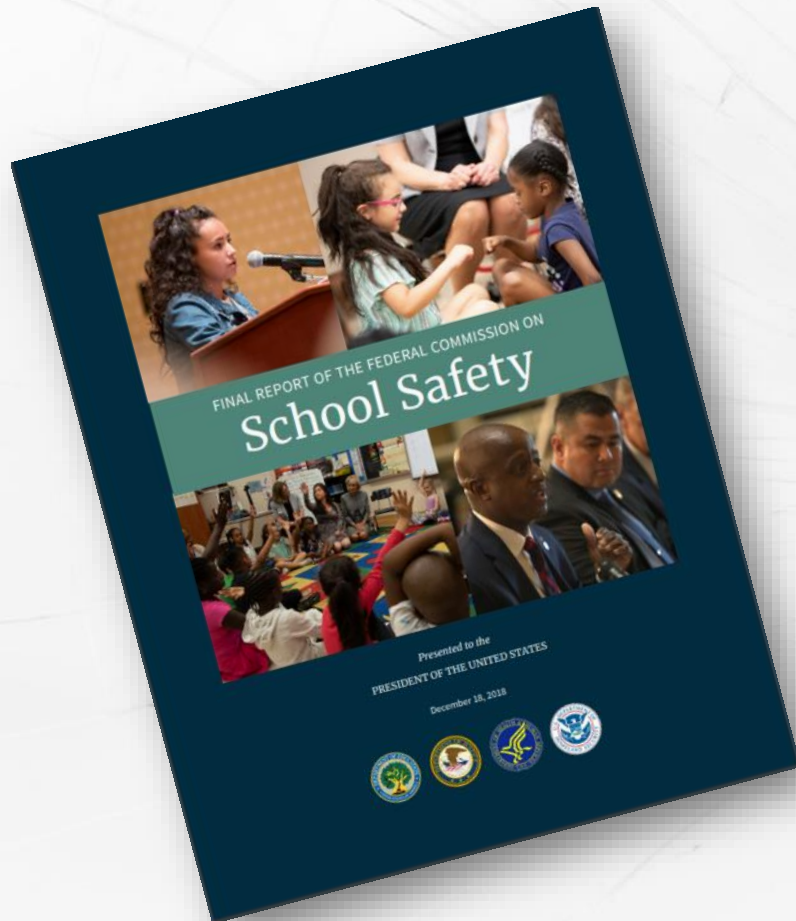


Glass Is Your Weakest Entry Point



- **Locked Doors**
- **Security Alarms**
- **Security Software**
- **Most schools do not have bullet resistant glazing or laminated glass – just tempered glass.**

Safety & Security Window Film is Recommended



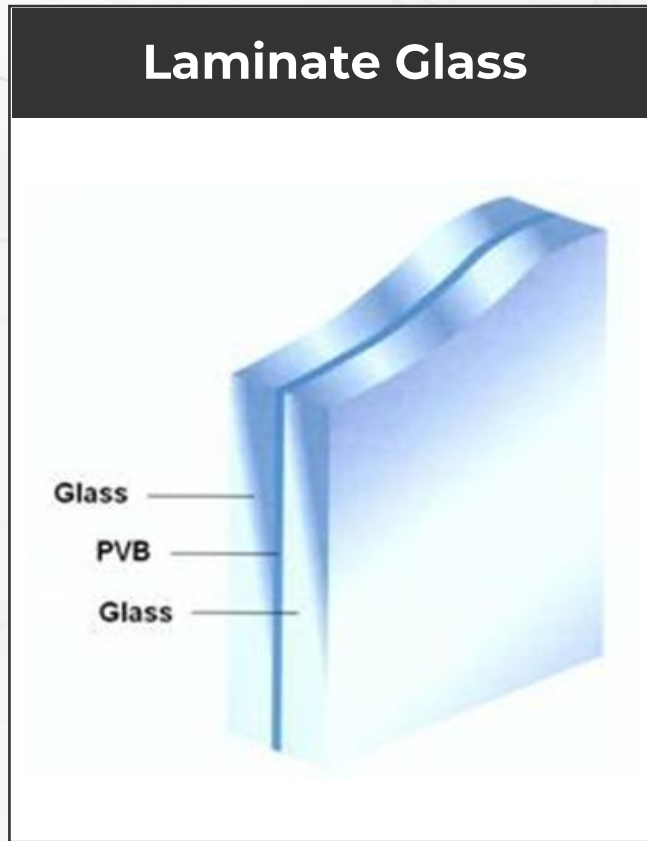
- Final Report of the Sandy Hook Advisory Commission
 - March 6, 2015
- Final Report of the Federal Commission on School Safety
 - December 18, 2018

“...Replacing any non-reinforced glass windows with tempered, wire-reinforced, laminated, or bulletproof glass and **applying blast-resistant safety films** can strengthen windows to increase the protection they provide...”

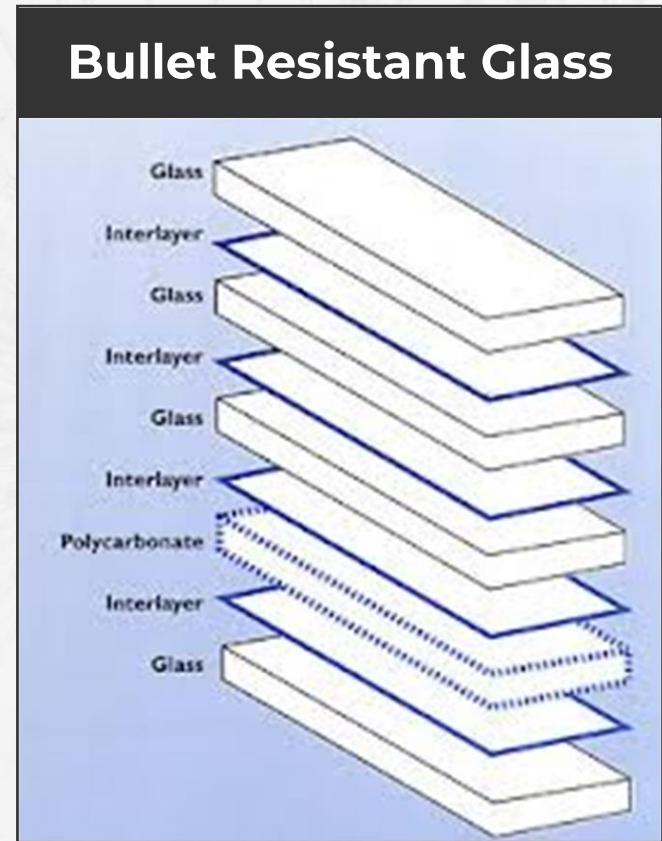
- *Final Report of the Federal Commission on School Safety*

Costly Alternatives

Laminate Glass



Bullet Resistant Glass



Safety & Security Film with an Attachment System

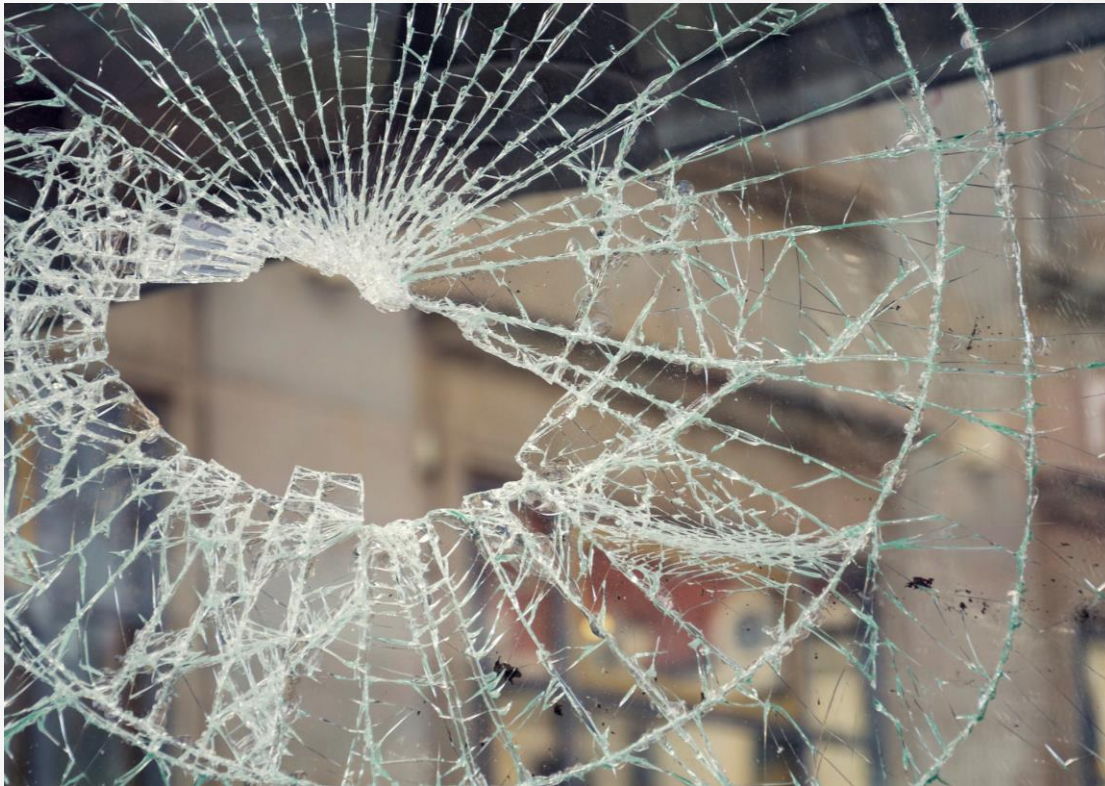
- **Cost effective**
- **Easily applied**
- **Uses existing glazing**
- **Helps buy precious time to get to safety and to respond**
- **Optically clear film catches intruder off guard when attempting to break glass**

How Does Safety & Security Film Work?

- The film and its strong adhesive forms a protective membrane on the glass.
- Film is applied on interior side.
 - Opposite of attack face
 - Protected from elements
- Helps hold broken glass fragments together.
- Film attachment system is applied along perimeter to anchor the film to the window frame.
 - Forces intruder to create opening through center of broken glass—giving responders precious time



Safety & Security Film Myths



MYTH

The film is bulletproof

- Bullets will go straight through film and glass
- Bullets will leave behind a bullet hole in the glass

MYTH

The film is impenetrable

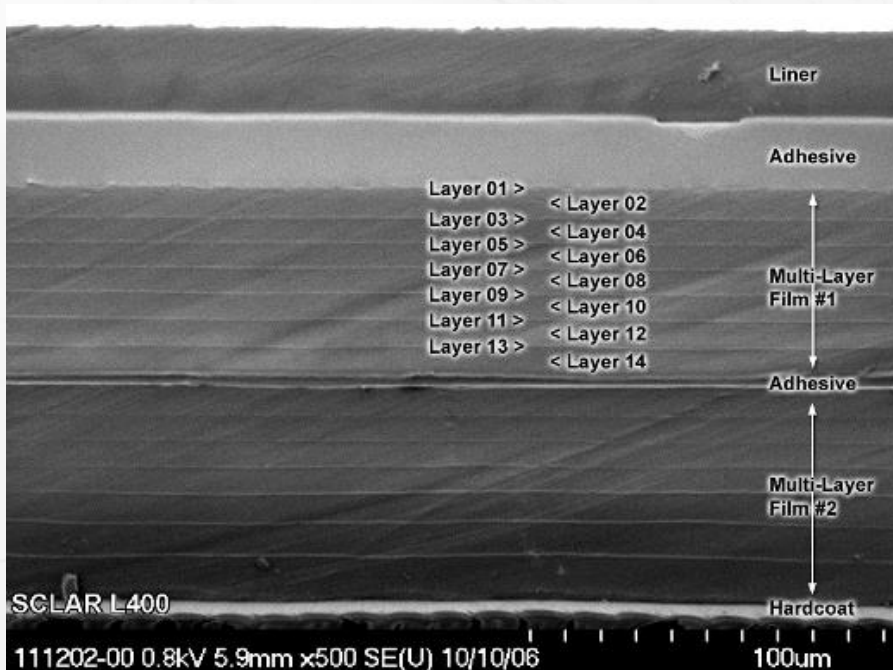
- An intruder can gain access
- Depends on:
 - Intruder preparedness
 - Determination
 - Tool usage
 - Number of impacts
 - Impact force
 - Strength of film
 - Strength of film anchorage system
 - Strength and thickness of glass
 - Size of opening required to gain access



Why 3M?

- Incorporated into thousands of schools and campuses in the U.S.
- 3M is known for its innovation, science and technology. 3M™ Ultra Series' micro woven tear resistant technology holds multiple patents and outperforms standard 2 ply 8 mil films
- 3M™ Safety and Security Films have been tested on numerous glazing types under a variety of blast loads. In fact, in some cases, 3M films have been designed to surpass required standards.
- 3M is only window film manufacturer that offers its own comprehensive structural adhesive “Caulk + Film warranty”.

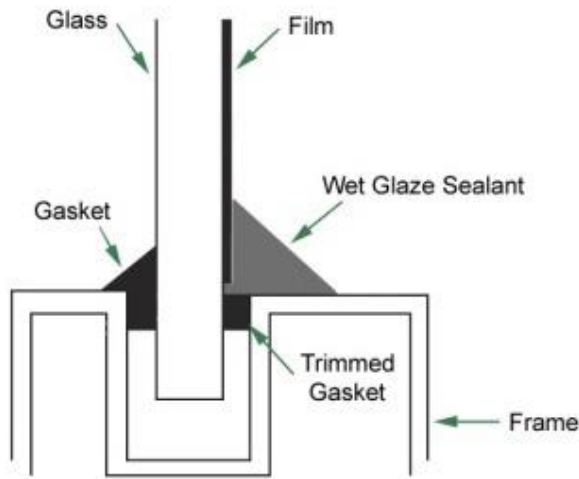
The 3M Difference



- The film and its strong adhesive forms a protective membrane on the glass.
- Ultra films have a patented micro woven layer technology to help resist tearing.
- Film is applied on interior side.
 - Opposite of attack face
 - Protected from elements
- Helps hold broken glass fragments together.
- Film attachment systems is applied along perimeter to anchor the film to the window frame.
 - Forces intruder to create opening through center of broken glass—giving responders precious time

3M™ Impact Protection Adhesive

- About 3 days cure time, which is faster than dow 995
- More “tamper resistant”
 - Advantageous in school environment
- At least 1/4” coverage on film and frame (not including gasket)
 - Minimum 3/8” coverage recommended



- **Attachment System Recommended For Schools**
- **Wet glaze structural sealant**
- **Low odor / VOC**
- **Fast cure time**
- **Weatherable & paintable**
- **Matte finish (vs. glossy)**

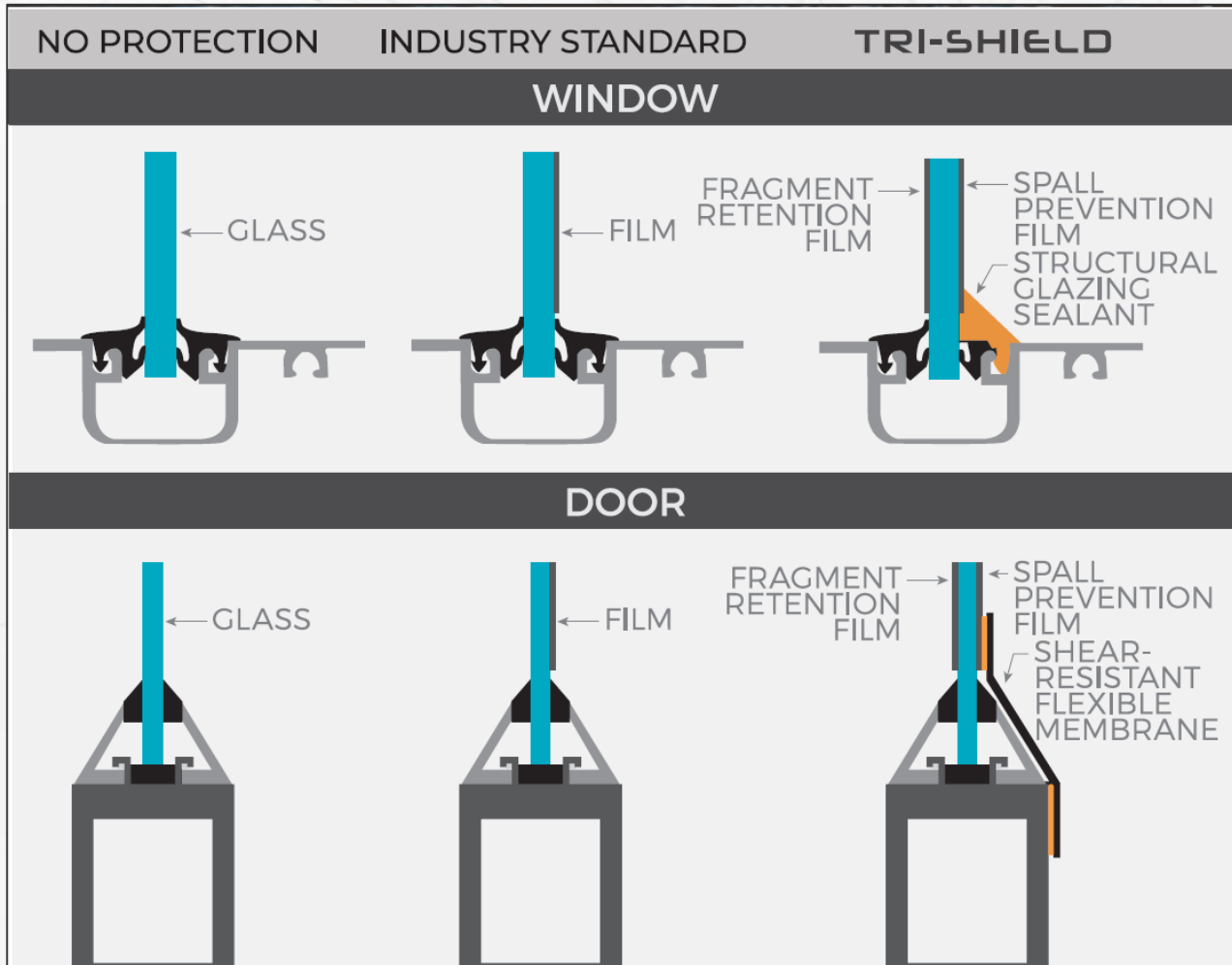
Why NGS?

NGS Films and Graphics Partners with Schools

- **Credibility & Capability**
 - NGS is 3M's largest authorized contractor/dealer in America
- **School Campus Security Assessments**
 - Built to mirror Federal Commission on School Safety's "layered - zone approach"
- **Contracting Vehicles**
 - GSA Schedule 84 Contract # 47QSWA20D000C - cooperative purchase
 - TIPS-USA- Safety supplies & Services Contract # 190101
- **Field Proven Application - TRI-SHIELD**



TRI-SHIELD Application – Proven Success



- TRI-SHIELD was created by NGS Films and Graphics
- TRI-SHIELD uses only 3M™ Safety & Security Window Film and Attachment Systems.
- TRI-SHIELD is a cost effective way to fortify existing glazing using 3M products
- TRI-SHIELD can be installed quickly with little impact on day-to-day operations on a school campus.

Houston ISD Police Test TRI-SHIELD

- Watch TRI-SHIELD in action.
- Video also available at <http://bit.ly/Houston-TRI-SHIELD>
- To see on your mobile phone, scan code with your smart phone app



In Conclusion

• Why Safety & Security Film?

- Security Films and Attachment Systems are quick and cost-effective way to fortify existing glazing
- Easy to implement, utilize existing glazing
- Not bulletproof or impenetrable, but can buy precious time for emergency response

• Why 3M?

- World's leader in adhesive technology
- Science has proven products' strength
- Strong warranty
- Products recommended include:
 - Ultra S800 - tear-resistant film option
 - Safety S140 - thickest film for most vulnerable areas
 - Impact Protection Attachment - essential for slowing down the intruder
 - Impact Protection Adhesive

• Why NGS Films and Graphics?

- Works one-on-one to provide custom solutions for your campus
- Security Assessments can be used for grant applications and meeting state reporting requirements
- TRI-SHIELD application technique has proven to be effective
- Contracting vehicles: GSA Schedule 84 and TIPS USA 190101



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