



INVESTING IN SUSTAINABLE BUILDINGS TO ENHANCE COMMUNITY RESILIENCE

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Climate Change and Resiliency

- **Climate change is increasing hazardous weather events.**
- **The NIST Center of Excellence for Risk Based Community Resilience Planning defines community resilience as:**

“The ability of a community to prepare for and adapt to changing conditions and to withstand and recover from disruptions to its physical and non-physical structure.”
- **Stakeholders look to building codes with robust structural guidelines as a means to withstand hazardous events.**
- **Structural reinforcement codes are being interpreted as extending to envelope systems**

Building Envelopes

Envelope considerations play a large role in creating an economically efficient and healthy environment for the occupants and businesses they shelter, before, during and after hazardous weather events.

Glazed window and door systems that are operable before and after a hazardous event provide for many of the needs of a building that is designed to be sustainable and resilient giving it the ability to be adapt to changing conditions as well as recover from disruptions.

U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED)

LEED creates a framework that allows for the synthesis of seemingly competing interests of hardening a facility and making it sustainable

Federal DoD Minimum Antiterrorism Standards for Buildings
an example of a Federal standard that incorporates structural guidelines without removing building envelope considerations

numerous provisions for standoff distances, structural reinforcement and connection design considerations,

Federal DoD Minimum Antiterrorism Standards for Buildings

Section B-3 Architectural Design contains provisions for laminated glass, and American Society for Testing and Materials (ASTM) Standards for:

- **frames**
- **glazed doors**
- **skylights**
- **vestibules**
- **curtain wall facades**

It should be noted that the glazed laminated windows with ASTM Standard frames are not required to be inoperable.

We can coordinate the findings of the DoD Minimum Antiterrorism Standard with the LEED standard so that there are no conflicts

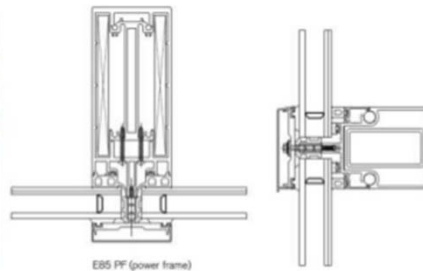
Blast Resistant Glazing Systems

Powerframe 85

sapa:
buildingsystem
ARCHITECTURAL ALUMINUM SOLUTIONS

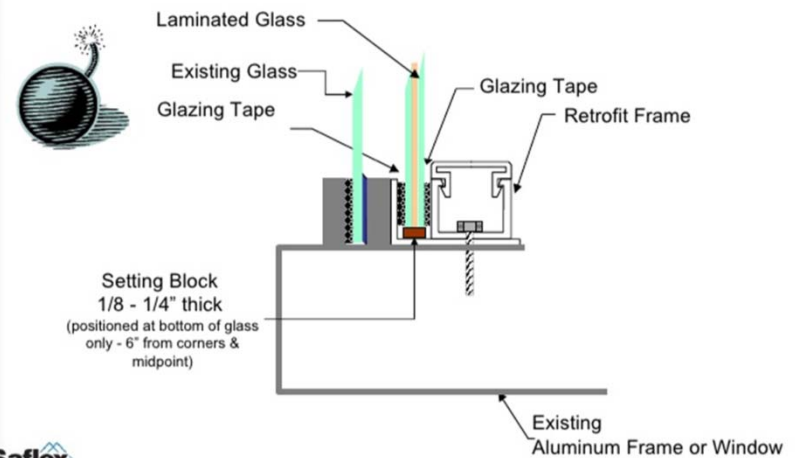


- Tested according to ISO 16933 Class EXV25 & 9 kg Satchel Bomb (Arena Air Blast Loading)



E85 PF (power frame)

Blast Resistant Glazing Retrofit Installations



Saflex

