

9292 Pence Highway Blissfield, MI 49228 517-443-5967 www.commercialwindowshield.com

CASE HISTORY

# HOUSTON METROPOLITAN TRANSIT AUTHORITY ADMINISTRATIVE OFFICE BUILDING

1900 Main Street Houston, TX 77208



#### **NATURE OF PROJECT:**

Window-Film Protection

### **SCOPE OF PROJECT:**

Sq, Ft. of Windows Protected – 15,000 Lineal Ft. of Attachment Installed – 13,000

- Mostly 4 sided mechanical attachment
- Entrance way film attached with 4-sided structural silicone



## **TYPE OF FILM INSTALLED:**

Sungard 12-mil Clear Glass Fragment Retention Film

### **FILM CHARACTERISTICS:**

- Blast protection
- Hurricane protection
- Solar protection

## **CHARACTER OF PROJECT:**

Challenging high work that required articulating arm boom lift. High work had to be completed on weekends to minimize disruption to traffic coming into the building.

## **CONTRACTING OFFICER COMMENT:**

"The job looks great and it is impossible to tell anything has been done to the glass." – Jerome Scott, Contracting Officer











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#### **PROJECT DETAILS:**

After the bad hurricane season of 2005 and the continued threat of terrorism in the US, the City of Houston decided to take a proactive approach to protect one of its new high-rise buildings.

The Metropolitan Transit Authority built a new administrative building on Main Street in downtown Houston that was completed in 2002. Although modern in most ways, the window glazing was not designed for blast or hurricane. The City hired an engineering firm and tasked them with upgrading the glass. After researching both hurricane and blast protection, the engineer specified a 12-mil thick clear fragment retention film and called for it to be secured to the window frames with a 4-sided mechanically attached anchoring.

Commercial Window Shield was one of the companies asked to bid on the work and was awarded the contract. The contract consisted of applying the film to the interior surface of the glass on 670 panes. 101 of the panes were extremely large and were located in the lobby/entrance of this public building. The lobby area had to be carefully coordinated so as not to disrupt entry and exit of the building since the work had to be performed using scissors lifts and an articulating boon lift to reach the top of the 40 foot+ high glass. Not only did Commercial Window Shield have to manage these challenges but the contract also called for a completion time of 35 days.

The project was going smoothly and was on schedule until work started on the ground level. To everyone's surprise, including the engineer, there was reinforcing steel located behind the window framing. The location and the hardness of the steel was such that it would not allow for the use of the mechanical attachment. Luckily for the City of Houston, Commercial Window Shield was able to do two things:

- Have WINGARD calculations performed to determine if another attachment method would work.
- 2. Offer the ability to do alternate attachment systems.

The only viable alternative available was to attach the film using a 4-sided wet glaze system. Commercial Window Shield had to shift gears and work quickly to maintain schedule. They had materials sent via various overnight services and completed the job several days ahead of schedule.

If Commercial Window Shield had not had the experience and expertise in all types and forms of fragment retention film and attachment experience the project could have easily turned into chaos, resulting in considerable delay. The City of Houston would have been forced to do research to find an alternate solution, but instead Commercial Window Shield resolved the issue before it became a problem.