

Building Technology Consultants, PC

Curtain Wall Rehabilitation at Motorola Parts Building

Point of Interest:

- Cost effective retrofit of older curtain wall system using conventional sealants in lieu of gaskets.

Project:



- 2-story, 30-year old building with original curtain wall system.
- Dry gasket system (neoprene).
- Insulated glass and spandrel panels set from inside the building.
- Certain parts of building were occupied by offices with security issues.

Problems & Challenges:



- Dry gasket system completely deteriorated and pulled away at corners.
- Extensive water and air infiltration issues.
- Glass and spandrel panels had shifted in many areas due to missing jamb blocks.
- Spandrel panels were routinely damaged by lawn mowers and flying objects.
- Several Insulated glass units had failed, but could not be easily replaced.

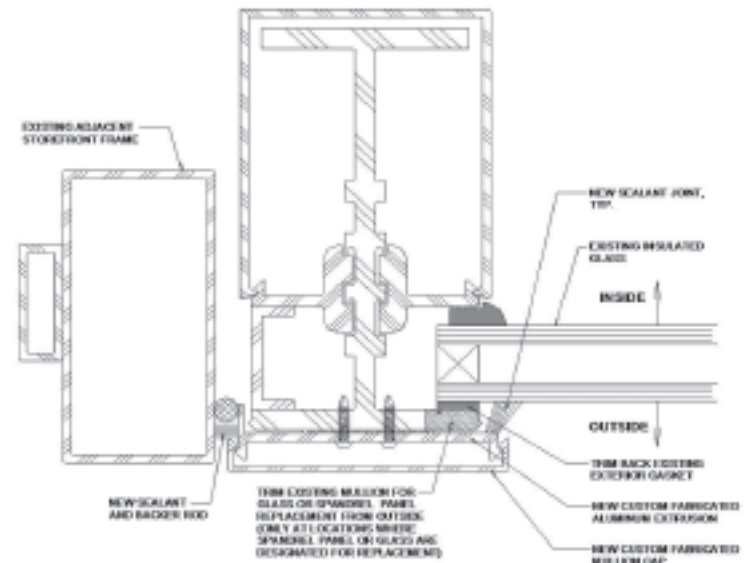
- Interior finishes included convectors covering the spandrels and drywall finishes at ceilings.
- The entire perimeter of the building was occupied by sensitive offices.
- Glass and spandrels could only be replaced from the building interior requiring interior finish work.
- A gasket replacement project was estimated to cost over \$2,000,000.
- Simple wet glazing was not going to be a long-term solution.
- Owner wanted the ability to replace spandrel and glass without interruptions to the offices.

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Scope of Work:

- Remove the existing beauty caps.
- Cut out the exposed portion of existing gaskets.
- Where glass/spandrel replacement is needed, slit the existing frame to remove and replace the unit.
- Apply sealant in new sealant reservoir.
- Apply new custom extruded beauty caps.
- Miscellaneous caulking work using silicone extrusion.



Site Challenges & Unforeseen Issues:



- Work performed from swingstage scaffolding.
- Mock-up constructed and tested before manufacturing custom extrusions.
- New beauty caps and sub-caps had to be extruded with tight tolerances for proper fit.
- Some work still had to be done on weekends.

Project Status:



- Entire construction work completed with less than \$400,000.
- Project completed in 2004.
- 3 years after completion, no leaks have been reported.
- Contractor: Triumph Restoration, SWR Institute member.
- Engineer: Building Technology Consultants, PC.