

**General Description:**

- **Location:**  
Midland, MI
- **Profile:**  
R&D Building
- **Project:**  
**Platinum Program** <sup>SM</sup> -  
Restoration - Skylights <sup>SM</sup>

**Services Provided:**

- Evaluation
- Design Development
- Bidding
- Field Quality Assurance
- **Platinum Program** <sup>SM</sup>

**Challenge:**

- Designing sealant details
- Remaining watertight during operations
- Safety requirements

**Solution:**

- Using a preformed product
- Field Quality Assurance
- Worked closely with safety monitor

**DOW***1897 Building Skylights*

**D**ow is a diversified chemical company that combines the power of science and technology with the "Human Element". The Company delivers a broad range of products and services to customers in around 160 countries, connecting chemistry and innovation with the principles of sustainability.

problem and design a comprehensive solution, once and for all.

The challenges during this project were designing sealant details which would accommodate substrate movements while

remaining watertight, and working under stringent safety requirements imposed by the owner.

The sealant challenge was met by using a preformed product that would accommodate large movements, cover the entire frame joint, and maintain a water tight seal. The construction



*Restored south quarter-barrel skylights*

Dow's 1897 building is a research laboratory which houses elaborate instruments and equipment. Extensive skylight units over lab areas were originally designed to allow for natural lighting and were leaking in spite of previous attempts at sealant repairs. Interior finishes and equipment were damaged as a result of this leakage. StructureTec was contacted to evaluate the



*Building transition at skylight termination requiring "attention to detail"*



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team worked closely with the independent safety monitor to avoid unnecessary delays and possible work shut downs.

Extensive Field Quality Assurance was implemented during the construction process. Final leak testing assured total watertight integrity.

As part of a Long Range Asset Management Program this process of restoration resulted in millions of dollars of deferred capital expenditures and enabled Dow Chemical to invest back into it's core components. ■



Overview of existing skylight details

FEATURES	BENEFITS
<b>Platinum Program</b> <sup>SM</sup>	Total turnkey approach
Attention to detail	Precise repairs to eliminate leakage
Scientific approach to problem-solving	Eliminates the cause of the problem, not just effect
Flood testing final application	Test for leaks after construction
Warranty Audit Program follow-up	Provides 1 year and 2 year evaluation post construction



Surface preparation was a critical factor in the success of the installation



Restored quarter-barrel skylight expansion joint

**StructureTec® Project Profile**

Total Building Envelope Management Solution<sup>SM</sup>

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