

**General Description:**

- **Location:**  
Dearborn, Michigan
- **Profile:**  
Hospital Complex
- **Project:**  
Roof Evaluation &  
StructureScan Survey

**Services Provided:**

- Evaluation
- StructureScan Survey
- Development of Long-Range Program

**Challenge:**

- Extensive number of roof areas
- Diverse array of roofing materials and configurations

**Solution:**

- Utilized multiple crews to cover different areas of the complex
- Used customized evaluation techniques to correctly analyze each roof area

## Oakwood Hospital & Medical Center Main Complex

Oakwood Hospital & Medical Center, a full service teaching hospital with 620 beds that has served southeast Michigan for more than fifty years, was experiencing

roof areas. During StructureTec's preliminary walkover, however, seventy-four roof areas were identified and designated. This initial walkover had uncovered what would be a sig-



*Overview of various roof areas at Oakwood Hospital & Medical Center.*

ngoing problems and concerns throughout the facility complex. The management team had recently changed and the new team wanted to take a proactive role with regards to facility maintenance. After attending a StructureTec seminar, the team contracted StructureTec to perform an evaluation and a StructureScan infrared survey of the hospital complex roofs. A previous evaluation performed on the hospital had identified thirty-nine

nificant challenge during the project. Expecting thirty-nine roof areas, not an insignificant number, StructureTec now faced almost double that num-



*Open flashing observed at roof drain.*



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*Inadequately secured flashing observed at parapet wall.*



*Debris has accumulated around the drain and moisture in the membrane has allowed vegetation to grow on roof surface.*

ber with multiple elevations and complex access systems. StructureTec met this challenge by using multiple crews for both the evaluation and the StructureScan to handle different parts of the complex and by scheduling ample time for data acquisition. StructureTec also encountered a diverse array of roofing materials and configurations. Customized evaluation techniques were utilized to correctly analyze, rate, and prioritize each roof area. Detailed information including membrane, insulation, deck, flashings, penetrations, warranties, age, etc. was compiled for

each area. All of this information was then used to create a prioritized, long-range program for maintenance and capital projects with estimated budgets for each aspect of the program. In conclusion, Oakwood Hospital and Medical Center now had a clear understanding of their roofing assets and a viable planning tool for accurately budgeting both maintenance and capital projects in the coming years, thereby maximizing the return on investment for all of their roofing projects.



*Area of wet insulation identified during the StructureScan survey. A test cut was performed within the area to confirm the results.*

FEATURES	BENEFITS
Delineates integrity of each specific roof area	Able to prioritize roof maintenance and replacement
Delineates which roofs need to be replaced and which need to be maintained	Able to allocate resources properly, maximizing the return on investment
Develop a roof condition index rating	Establish budgets for future work
Evaluation of building envelope at the roof line	Provides recommendations for total watertight integrity
Prioritization which encompasses all roofs	Inventory of all facility assets

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