

General Description:

- **Location:**
Brownstown, Michigan
- **Profile:**
700,000 sq. ft.
- **Project:**
Roof Evaluation & StructureScan Survey

Services Provided:

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

Challenge:

- Needed to be able to plan ahead and prioritize their roofing budget
- Wanted an infrared survey performed on all their roofs, including ballasted

Solution:

- Evaluated all roofing assets and developed a prioritized, long-term budget plan based on condition ratings
- Used short-wave infrared technology, able to scan ballasted roofs, and an experienced thermographer

Woodhaven-Brownstown School District

10 Buildings

Woodhaven-Brownstown School District (WBSD), a growing district in the suburbs of Detroit, had been addressing their roof replacements on an

were ballasted EPDM with the traditional heavy river rock, a roofing system which is challenging for infrared scanning. StructureTec met this challenge by using a special short-wave infrared camera which had the capability to scan this type of roof configuration. StructureTec's experienced thermographer performed the scan. Experience and knowledge were crucial in performing this type of scan because even with



Overview of Woodhaven High School

emergency basis. Problems were addressed as they arose. WBSD needed to be able to plan ahead and prioritize their budgets, both in the short-term and the long-term. They also wanted to use the information to supplement a bond issue process that was in the initial stages. StructureTec was contracted to perform an evaluation and an infrared StructureScan survey for the entire district. StructureTec shortly encountered a challenge with the StructureScan. Almost half of the roofs

technically advanced equipment, the results can be difficult to interpret. This infrared scan was performed in conjunction with the evaluation. A complete inventory was created of all their roofing

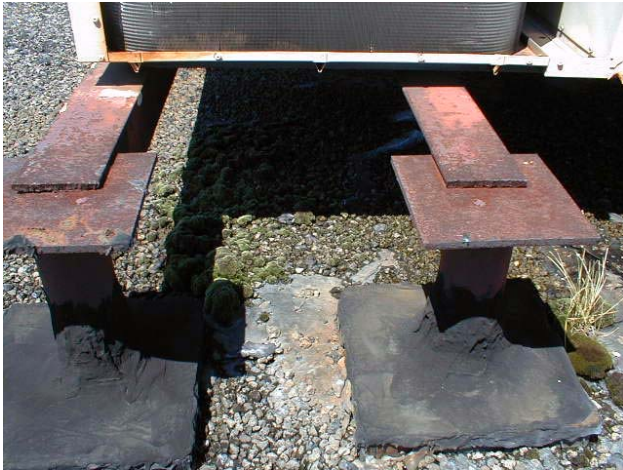


An existing roof was retrofitted with a new Durolast membrane. This roof shows deficiencies at the perimeter and wrinkles in the membrane.



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Obsolete roof curbs were evident where rooftop equipment had changed.



Open membrane laps were observed at various locations.

systems, roof penetrations, and parapet walls. An objective rating was given to each area using StructureTec's Roof Condition Index. Once the condition and integrity of each specific roof area was denoted. StructureTec began the process, developing recommendations and prioritizing a maintenance and replacement budgeting plan. Attention was given to WBSD's special needs and concerns for the use of these buildings in the coming years. At the conclusion of this process, WBSD had a comprehensive report on all their facility roofs with a prioritized, short and long-term budget plan to put into effect. This information would allow the district to supplement their bond issue process. WBSD now have a comprehensive strategy to allocate their resources properly, main-

taining roofs which require maintenance, replacing roofs which require replacement, maximizing their investment in all their roofing assets. ■

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