

General Description:

- **Location:**
Maumee, Ohio
- **Profile:**
6 Buildings
- **Project:**
StructureScan, Roof Evaluation,
Building Envelope Evaluation

Services Provided:

- Evaluation
- StructureScan
- Development of Long-Range Program

Challenge:

- Multiple buildings/short time frame
- Large areas of ballasted roof
- Sparse records for existing roofs

Solution:

- Used existing DMS program to process data for quick assessment
- Used an infra-red camera that has short-wave capabilities for ballasted roofs to determine integrity of existing insulation
- Utilized test-cuts to ascertain detailed information on existing roof construction

Spartan Stores, Inc.

Food Town

Food Town was in the process of becoming Spartan Stores' latest acquisition. Spartan Stores needed an analysis of the facilities' asset value, i.e., what conditions the buildings were in and how much it would cost to remediate them, prior to the final purchase. A very fast turnaround was required for the real estate transaction. StructureTec was selected to perform the real estate evaluation because of the capability to 'assess' this data quickly through the DMS program already incorporated by Spartan Stores. The project, however, did pose a

present and how much previous degradation had occurred. The Survey included performing a "state-of-the-art" infrared scan over 100% of the roof area. Results were re-



Overview of Perishable Warehouse



Wet area comprised 6,608 sq. ft. and encompassed the entire perimeter of this roof area.

challenge because there were very sparse records as far as history of work completed or the integrity of the existing roofs. A *StructureScan*SM Survey was performed on the roofs to determine how much wet insulation was

corded on a VCR tape for review and verification. All deficient areas were marked on the roof surface. Schematics were developed for documentation and future contractor bidding. The Evaluation Phase consisted of a survey of the building envelope to assess conditions on masonry and pre-cast panels. The roof evaluation consisted of flashing and roof membrane analysis, with confirmations of construction. Conditions and recommendations for each roof and building area were also provided. All roof areas were prioritized based on conditions and integrity of each respective roof. A five year program with a concerted plan of action was developed. On the major capital portion of the project, Spartan Stores - Food Town was able to prioritize their expenditures for roof replacement, enabling resources to be applied where required, and identifying areas which would yield a higher life-cycle cost through maintenance. For these



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areas, a Strategic Maintenance Program was developed to remove wet saturated roof insulation where the roof life could be extended and to implement repairs and corrective action. The Survey's scientific approach and accuracy in pinpointing areas of wet insulation determined that precise repairs could be performed. The end result was that Spartan Stores was able to finalize negotiations with the seller and align the final acquisition more closely with the value of the facilities. ■



Field of roof displays Random Intermittent Moisture (RIM).



Roof top equipment has penetrated the roof membrane and caused wet and saturated insulation.

FEATURES

Determined the exact extent of wet, saturated insulation

Ascertained the extent of substrata degradation where maintenance is not viable

Infra-red short wave capabilities

High level of accuracy as opposed to guesswork

Scientific approach to problem-solving

Total building evaluation and review

BENEFITS

Saved dollars in the areas that did not require replacement in their entirety

Properly invested dollars in the areas that absolutely required replacement

Able to scan ballasted roof systems

Precise repairs to eliminate leakage conditions

Addressed the "cause" of the problem, not just the "effect"

Able to develop a long-range strategic plan

Total Building Envelope Management SolutionSM

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