



Case Studies

A state agency in the northeast operated a facility with a 360K sq ft roof area. The roof was over 22 years old experiencing several leaks. Cost estimates to replace the roof ranged between \$2.5 and \$3 million. An initial IR inspection identified 1,208 sq ft of roof requiring replacement at a total cost of \$20,705. The following year, another IR inspection was performed that identified 1,399 sq ft of roof requiring replacement at a cost of \$18,217. A roof IR inspection program was started and the roof was inspected every year thereafter. The surveys resulted in less than 200 sq ft of roof identified needing replacement in any one of the following 4 years (one year the results were as low as 30 sq ft). The total cost for roof repair and upkeep for the 6 years was less than \$60K. If the facility would have been privately owned, interest on the initial \$3 million at 10% would have amounted to \$300K for the first year alone. Discounting interest on the \$3 million over the 5-year period, simple savings resulting from survey and repair versus initial replacement cost (\$3 million to \$60K) amount to \$2,940,000. This figure did not take into account the interest on the \$3 million, which would result in savings in excess of another \$500-\$600K, depending on loan interest paid.

A building owner had been told that the roof to his facility needed to be stripped down the deck and be replaced with a new roof and insulation; the cost \$1,926,000. However, infrared inspection showed with documented proof that the majority of the roof was not damaged nor needed to be replaced. With detailed information in hand the building owner chose to repair the water damaged areas and to re-roof only the existing sound roofing; the cost \$784,000.

A persistent leak in a 28K sq ft built up roof on a commercial building lead the owner to seek out the cause. A thermal IR scan of the roof identified a small 1200 sq ft wet area. With analysis from the survey just a small section had to be replaced rather than a complete tear off and new roof installation. The cost for the latter would have been between \$90-\$120K with the cost to repair just the damaged area was \$5,400 resulting in a \$100K savings.

Please contact us with any questions or comments!

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