

Design, Manufacture and Laminate Solar Roofing Panels for Airport Hangar Retrofit

Greenville wants to be the “greenest” city in the State of Michigan. Thanks to its recent airport hangar installation, it’s several steps closer to their goal. The City installed a 500kW solar system that included solar retrofitting three existing airport hangars, which contributes 182kW.

Problem: The existing roofs were thru-fastened metal panels. To avoid a costly tear-off of the existing roof, a solution was needed to retrofit over the existing metal panels. The challenges were many, and included developing a retrofit solution that would optimize the square footage of solar panels on the roof.

Solution: McElroy Metal engineers developed a solution that consisted of custom-fabricated metal panels of various widths that were designed to be installed over the existing metal roof panels. The metal panels were also designed to host Uni-Solar photovoltaic laminates.

McElroy manufactured the special metal panels at its facility in nearby Marshall, MI and shipped them to the Greenville job site. The next task was to design an efficient and effective system to laminate the Uni-Solar photovoltaics onto the metal panels. A special team of McElroy representatives designed and set-up lamination equipment and processes in a jobsite hangar. This on-site team provided a steady supply of laminated panels to complete each of the three hangar roofs. A total of 1,222 custom roof panels were manufactured and laminated with Uni-Solar photovoltaics.

Adding Solar to your next retrofit is both economical and energy-efficient. Contact your McElroy representative or visit www.mcelroymetal.com to see just how easy it is to add solar to your skill set.



Project Details:

Client:

City of Greenville, Michigan

Construction Manager and Solar Partner:

Inovateus Solar, South Bend, IN

Roofing Contractor:

Reliable Sheet Metal,
Byron Center, MI

Roof Panel Manufacturer:

McElroy Metal, Bossier City, LA

Photovoltaic Laminator:

McElroy Metal, Bossier City, LA

 **McElroy Metal**

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