

# EECBG Case Study #3

## Workforce Development



southeast michigan regional  
**energy office**



### Green Roof Installation



Municipality:	City of Warren, MI
Population:	129,990
Governance:	Mayor/Council
Grant Allocation:	\$ 1,358,600

### Lessons Learned

- Lead by Example in Building and Retraining
- Green jobs are for all skill levels
- Partner with other institutions

### The Takeaway

Government can provide a good example by implementing projects to demonstrate to the private sector the possibilities and benefits of green building.

Implementing green technologies represents an opportunity for worker retraining, achieved through strategic partnership.

Strategic partnerships help cities achieve such disparate goals as workforce development, energy savings, stormwater runoff reduction, and improved occupant comfort.

### Scope of Work

The City of Warren implemented a green roof retrofit on their Police Headquarters and Sanitation building. In addition, the City of Warren trained unemployed workers in green roof installation. Some relevant statistics from the project were:

- Installation of 5,280 sq ft LiveRoof Lite vegetative green roof on the Police Station and 6,100 sq ft Xero Flora vegetative green roof on the Sanitation Building
- Extensive green roof with soil 3 inches deep with sedum and other shallow rooted plants used.
- Classroom training for 15 and on-the-job training for 10 Michigan Citizens as green roof installers.



The Green Roof on Warren's Police Headquarters

## Project Results

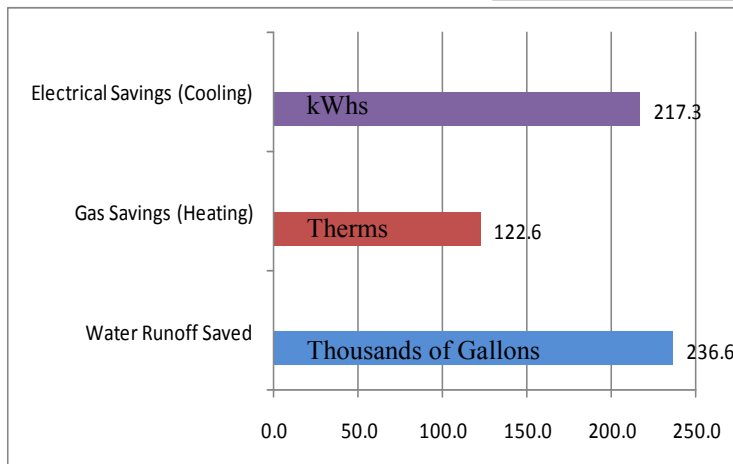
The City of Warren worked with Michigan Works and Macomb Community College (M-TEC) to provide credentials for workers in Living Roofs, as well as other career readiness certifications. Some resultant project metrics are:

- 10 workers trained in green roof technology, first aid, and building products. (2 of those workers now working in this field)
- 12% HVAC energy savings from greater insulating characteristics of green roof
- Total roof runoff (both roofs) reduced by 236,590 gallons annually



Proud Green Roof Students turned installers (courtesy Warren TV)

## Estimated Annual Benefits of Green



## Challenges Overcome

- Lack of knowledge on how to train people for the Green Roof installers labor market
- Working in an integrated way with designers, buildings, and the education providers.
- Lack of knowledge on the benefits of green roofs.

## Further Resources

EPA State and Local Climate and Energy Program Green Roof Resources  
<http://www.epa.gov/statelocalclimate/web-podcasts/local-webcasts.html>  
Greenroof Industry Portal  
<http://www.greenroofs.com/>  
MSU's Green Roof Research Program  
<http://www.hrt.msu.edu/greenroof/>

Green Roofs for Healthy Cities  
<http://www.greenroofs.org/>  
WARM Training Center  
<http://www.warmtraining.org/>  
Southeast Michigan Regional Energy Office  
<http://www.regionalenergyoffice.org/>