

# ***GREEN SHEET***

## **RESOURCES FOR SUSTAINABLE DEVELOPMENT IN THE CITY OF CLAYTON, MO**

*The intent of this resource guide is to provide information to Architectural and Site Plan Review Applicants on energy efficiency, stormwater mitigation and environmentally preferable materials to advance sustainable development in Clayton. Buildings that are designed, constructed and operated for energy efficiency and resource conservation are able to demonstrate reduced negative environmental impacts, improved occupant wellbeing and profitability from energy savings.*

### **Energy Efficiency**



#### **Overall Energy Efficiency**

Energy efficiency is a cost-effective strategy for using less energy to provide the same level of energy service. Environmental responsibility and energy efficiency have immediate and measurable impacts on a building's performance. For more information, go to [www.usgbc.org](http://www.usgbc.org) or [www.energystar.gov](http://www.energystar.gov).

#### **Vegetated and Cool Roofs**

Vegetated roofing replaces the vegetated footprint that is destroyed when a building is constructed and reduces rainwater runoff. Cool roofs conserve energy and mitigate the urban heat island effect by reflecting the sun's heat back to the sky. For more information, go to [www.greenroofs.com](http://www.greenroofs.com) or [www.coolroofs.org](http://www.coolroofs.org).



#### **Energy Star Appliances**

Residential and commercial appliances certified by Energy Star as being energy efficient help protect the environment while providing cost savings. Energy Star certifies hundreds of products as well as entire structures. Energy Star certification ensures quality, energy efficiency, and reduced air pollution. For more information, go to [www.energystar.gov](http://www.energystar.gov).

#### **Ground Source Heating, Ventilation and Air Conditioning**

Ground source HVAC systems transfer warmer air into your home or business during the winter and cooler air in the summer by taking advantage of the earth's underground stable temperatures. For more information, go to [www.thegeoconnection.com](http://www.thegeoconnection.com).



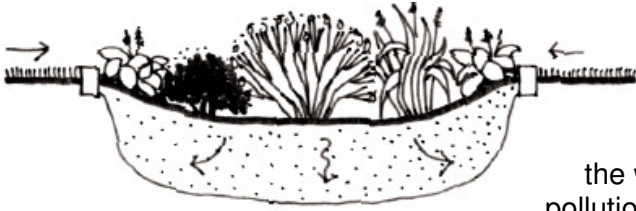
### **Energy Efficiency Standards**

Various standards are used to verify energy efficiency in residential and commercial new construction, additions, renovations and existing operations.

- Energy Star  
[www.energystar.gov/index.cfm?c=about.ab\\_index](http://www.energystar.gov/index.cfm?c=about.ab_index)
- American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE)  
[www.ashrae.org](http://www.ashrae.org)
- International Energy Conservation Code (IECC)  
[www.internationalcodes.net/2009-international-energy-conservation-codes.shtml](http://www.internationalcodes.net/2009-international-energy-conservation-codes.shtml)
- Leadership in Energy and Environmental Design (LEED)  
[www.usgbc.org/DisplayPage.aspx?CMSPageID=222](http://www.usgbc.org/DisplayPage.aspx?CMSPageID=222)

# RESOURCES FOR SUSTAINABLE DEVELOPMENT

## Stormwater Mitigation



### **Rain Gardens**

Rain gardens are landscaped depressions in the ground that collect rainwater runoff from compacted lawn areas, roofs, driveways and walkways and allow the water to soak into the ground. Rain gardens reduce the pollution entering creeks, streams, rivers and lakes. For more information, go to [www.raingardennetwork.com](http://www.raingardennetwork.com) or [www.grownative.org](http://www.grownative.org).

### **Pervious Paving**

Concrete, asphalt, paving stone and brick products with more air spaces than their conventional counterparts allow rainwater to pass through and soak into the ground. Pervious paving lessens the burden on stormwater infrastructure, filters runoff pollution and reduces the risk of flooding. For more information, go to [www.perviouspavement.org](http://www.perviouspavement.org) or [www.toolbase.org/Technology-Inventory/Sitework/permeable-pavement](http://www.toolbase.org/Technology-Inventory/Sitework/permeable-pavement).



## Environmentally Preferable Materials



### **Locally Sourced**

Construction materials and systems found locally or regionally save energy and resources in transportation to the project site. For more information, go to [www.pioneerforest.org](http://www.pioneerforest.org) or [www.stlouisgreen.com/companies.php](http://www.stlouisgreen.com/companies.php).

### **Low and Non-Toxic**

Indoor air quality is enhanced by using materials such as paints and carpets that emit few or no toxins and have minimal chemical emissions. For more information, go to [www.epa.gov/iaq/voc.html](http://www.epa.gov/iaq/voc.html).



### **Recycled and Reclaimed**

Recycling construction and demolition waste material maximizes landfill capacity when materials that would have otherwise been discarded are reused in new construction, additions or renovations. Using recycled materials for construction conserves natural resources by reducing the demand for raw materials. For more information, go to [www.resourcestlouis.org](http://www.resourcestlouis.org).

### **Rapidly Renewable**

Using materials that regenerate themselves faster than the demand for the product will avoid contributions to deforestation and lower the climate impact. For more information, go to [www.fsc.org](http://www.fsc.org) or [www.ecomii.com/building/terms/rapidly-renewable-materials](http://www.ecomii.com/building/terms/rapidly-renewable-materials).

