



Open Space Maintenance Practices



Impervious Surfaces  
Disconnection



Rain gardens

**For more information**

**Check out our webpage  
[www.brokenarrowok.gov](http://www.brokenarrowok.gov)**

**Email  
[livinggreen@brokenarrowok.gov](mailto:livinggreen@brokenarrowok.gov)**



Minimized Clearing and Grading



**For more information**

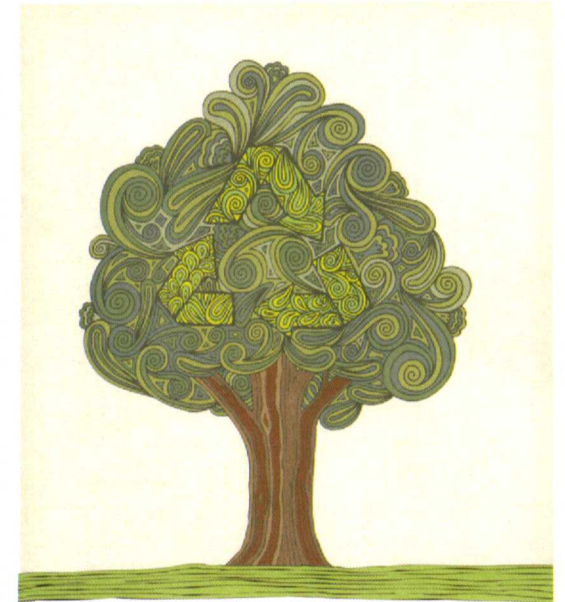
Please contact Michael Skates, P.E., CFM, Russell Gray, MHR or Vaunda Olivera, CFM at (918) 259-2411 or email [livinggreen@brokenarrowok.gov](mailto:livinggreen@brokenarrowok.gov)



**BROKEN ARROW**

*Living green*

**Low Impact  
Development**



**Development Services Department  
918-259-2411**



## What is LID?

Low Impact Development (LID) is a land development strategy that attempts to replicate the original pre-development hydrology conditions as best possible to reduce negative stormwater quality and quantity impacts. It is an innovative ecosystem-based approach that works with nature to manage stormwater as close to the runoff source as possible. A variety of site design and open space maintenance practices create a hydrologically and environmentally sound landscape.

## Benefits of LID?

### **Developers:**

- Reduced land clearing and grading costs
- Potential reduction of infrastructure costs (streets, storm sewer systems)
- Improved marketability of developments

### **Environment:**

- Preservation of existing trees and vegetation
- Natural filtering of pollutants in runoff
- Reduction of pollutants and erosion in receiving streams
- Increased infiltration over standard stormwater designs

### **Communities:**

- Potential reduction of public infrastructure costs (streets, storm sewer systems)
- Increased public awareness of stormwater quality

### **Landowners:**

- Improved development green space and aesthetics
- Potential higher property values
- Improved ecology and sustainability on individual and collectively owned properties

## So.....what are we talking here?

### Bio-retention Filters or Rain Gardens

Shallow landscaped gardens in development low spots built to receive and infiltrate low stormwater flows through deep rooted native vegetation.

### Tree Preservation-Planting\Landscaping

Preservation of existing trees or planting of extra trees benefits rainfall interception, ground-water infiltration, and prevention of soil erosion.

### Impervious Surfaces Disconnection

Rain barrels, cisterns, sheet flow pavement areas, and roof drains discharging to vegetation areas help to reduce quantity of stormwater and pollutants draining to storm systems and creeks.

### Minimized Clearing and Grading

Reduction of large cleared and graded areas helps stormwater quality by leaving existing stormwater filtering vegetation intact and reduces expense and resources required for siltation and erosion control during construction.

### Minimized Impervious Area

Reduction of street widths, pervious pavement for trails or parking areas, and reduced private driveway and paved areas collectively work to reduce the negative impacts of stormwater flows and pollutants.

### Open Space Maintenance Practices

Native vegetation, integrated pest management, reduced fertilizer use, and low water use irrigation systems on green spaces have positive impacts on the water quality of receiving streams.



## **Broken Arrow**

## **Living Green Certification**

The **Broken Arrow Living Green LID Certification** has been created to certify and recognize those developments designed, constructed, and maintained under the guidance of Low Impact Development guidelines.

Existing and proposed developments are eligible to apply for certification. The certification program is voluntary. The **City of Broken Arrow Living Green Low Impact Development Practices For Certification Manual and Application Form** may be obtained on the City of Broken Arrow web page at [www.brokenarrowok.gov](http://www.brokenarrowok.gov)



After reading the certification procedures, guidelines and requirements, an applicant can fill out an application form to start the certification review process performed by the City of Broken Arrow Development Services Department in conjunction with Stormwater Management Division of the Engineering and Construction Department. Developments meeting certification requirements will receive either a **Platinum, Gold, Silver, or Bronze** certification. Certified developments can receive site signage, a Living Green Certification Certificate, and other acknowledgement and marketing benefits provided by the City of Broken Arrow.