

## APPENDIX B

### LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN CERTIFICATION PROGRAM

Low-Impact Development (LID) is a construction method that allows new development to minimize environmental impact and includes techniques such as green roofs, extensive landscaping, bioswales, and other creative uses of open space. It is an approach that combines naturally functioning site plans with pollution prevention measures in an effort to compensate for land development impacts to hydrology and water quality. Prince George's County, Maryland is a national leader in the area of LID; therefore, this plan recognizes and strongly recommends consideration and use of the approaches referenced here and in the following publications:

- *Low-Impact Development Design Strategies: An Integrated Design Approach* (2001), Prince George's County, MD, Department of Environmental Resources, Programs and Planning Division; and
- *Low-Impact Development Hydrologic Analysis* (2001), Prince George's County, MD, Department of Environmental Resources, Programs and Planning Division, January 2002.

The Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ is a voluntary, consensus-based national standard for developing high-performance, sustainable buildings (see [www.usgbc.org](http://www.usgbc.org)). LEED provides a complete framework for assessing building performance and meeting sustainability goals. Based on well-founded scientific standards, LEED emphasizes state-of-the-art strategies for sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality. LEED recognizes achievements and promotes expertise in green building through a comprehensive system offering project certification, professional accreditation, training, and practical resources.

M-NCPPC and the Prince George's County Department of Environmental Resources strongly urge prospective developers of sites within the West Hyattsville TDOZ to incorporate LID techniques into their designs. Developers are also encouraged to seek basic LEED certification for their projects (higher levels of certification are available and are encouraged).



*LEED building plaque.*



*Example of a rain garden.*

# SUGGESTED LOW-IMPACT DEVELOPMENT DESIGN GUIDELINES

## General Design Guidelines

### Reference

### Intent

To promote the use of low impact development (LID) technologies and minimize adverse environmental impacts on the Northwest Branch stream valley.

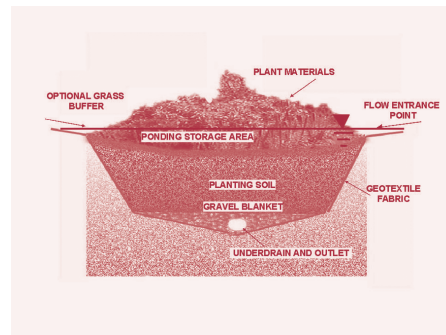
1. LID proposals shall be regulated and approved by the Department of Environmental Resources. Suitable LID techniques within the TDOZ are bioretention systems and green roofs.



*Example of an intensive green roof system—parking garage in Bethesda, Maryland.*

2. Bioretention systems should include the following elements subject to the approval of the Prince George's County Department of Environmental Resources:

- Ponding storage area
  - Plant material
  - Ground cover layer
  - Inlet and (underground) outlet controls
  - Planting soil
  - Maintenance plan
  - In situ soil
- a. Depending on design requirements, a pretreatment area may be included in an approved bioretention system.
  - b. Bioretention ponding areas should not exceed a six-inch depth.



*Cross section of typical bioretention swale. Source: Stream Corridor Restoration: Principles, Processes, and Practices—Federal Interagency Stream Restoration Working Group (1998).*

- c. Inlet and outlet flows for bioretention areas should not exceed 0.5 feet per second.
- d. The minimum depth of planting soil in bioretention areas should be four feet.
- e. Soil mixtures in bioretention areas should include sand, loamy sand, and sandy loam, with clay content not exceeding ten percent.
- f. Plant materials used in bioretention areas should include a minimum of three species of plant.
- g. An underdrain system should be required for all in situ soil filtering areas with an infiltration rate less than 0.5 inches per hour.



*Example of on-street bioretention areas—Portland, Oregon.*

3. Green roof systems should include the following elements subject to approval of the Prince George's County Department of Environmental Resources:

- Waterproof membrane
- Filter mat
- Root barrier
- Growing media
- Insulation layer
- Plant materials
- Waterproof membrane (shall be installed new in the case of a retrofit to an existing building)
- a. Approved extensive green roofs should be designed to exert a maximum structural bearing load of 35 pounds per square foot when fully saturated.
- b. Approved intensive green roofs should be designed to exert a maximum structural bearing load of 200 pounds per square foot when fully saturated.
- c. Approved green roofs should be pitched at no more than 4.37:12 (equivalent to a 20 degree slope).
- d. All approved green roofs should be designed to be accessible for maintenance purposes.



*Example of an Extensive Green Roof System—Montgomery Business Park/Maryland Department of the Environment, Baltimore, Maryland.*

CERTIFICATE OF ADOPTION AND APPROVAL

This *Approved Transit District Development Plan and Sectional Map Amendment for the West Hyattsville Transit District Overlay Zone* amends the 2002 *Prince George's County Approved General Plan* and the 1998 *West Hyattsville Approved Transit District Development Plan for the Transit District Overlay Zone*. The Transit District Development Plan and Sectional Map Amendment were adopted by the Prince George's County Planning Board of The Maryland-National Capital Park and Planning Commission by Resolution No. 05-243 on November 17, 2005, and were approved by the Prince George's County Council by Resolution No. CR-24-2006 (DR-2) on May 23, 2006, after a duly advertised joint public hearing held on September 27, 2005.

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