

WEST WINDSOR TOWNSHIP
GREEN DEVELOPMENT PRACTICES CHECKLIST
3-20-09

The "Green Development Practices" are intended to function as "guiding principles" for all Site and Subdivision applications in West Windsor Township. Each applicant shall be expected to responsibly incorporate as many of these items, as practical, into the project design. The practices are offered as a checklist to enable flexibility to be progressive and innovative, since many of these practices are still being incorporated into the main stream realm of the development industry. It is expected that these items will facilitate more sustainable development. Sustainable development seeks to balance environmental, economic and social aspects of a proposal such that the resultant neighborhood or business will be efficient in cost, impact and function. This list is not intended to be exclusive; incorporation of additional "Green Development Practices," similar to these items is strongly encouraged to achieve the goal of West Windsor Township to be a more sustainable community.

By incorporating this checklist into the Township plan submission checklist developers will be encouraged to consider "Green Development Practices" with the genesis of the project program.

Township staff will be using this checklist to review the "green" character of an application.

The Planning Board or Zoning Board of Adjustment, in consultation with Professional Staff, will have the jurisdiction to determine if the "spirit" of these guidelines are adequately addressed. Applicant's will be asked to provide testimony and support documents to describe the actions or practices that will be incorporated into their proposal, including verification subsequent to implementation.

Green Development Practices Categories

- A. LANDSCAPE – Landscape plantings / ecosystem management
- B. WATER – Potable water use and disposal
- C. STORMWATER – Stormwater management and harvesting
- D. ENERGY - Energy use and generation – climate design
- E. RESOURCES – Materials and species - preservation – recycling - reuse
- G. SOCIAL – Promote community interaction – gathering – pride – health
- H. AIR – Reduce air pollution / restore air quality

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- 1 Develop innovative and progressive stormwater best management practices that embrace ecosystem based, natural and sustainable versus artificial and high maintenance means of treating storm water quality at the conceptual design phase (e.g. raingardens – bioretention swales / basins). Sand bottom basins are not considered sustainable since they are not ecosystem based. STORMWATER

Project will implement this practice – YES _____
Describe how this practice will be implemented and the benefits -

Project will not implement this practice – NO _____
Reason this practice can not be integrated into this project -

- 2 Develop landscape and stormwater maintenance specifications that employ integrated pest management post bond to assure implementation for five years after occupancy LANDSCAPE

Project will implement this practice – YES _____
Describe how this practice will be implemented and the benefits -

Project will not implement this practice – NO _____
Reason this practice can not be integrated into this project -

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- 3 Implement solar or other alternative energy generation systems for the building, or planned development. Minimum goal 20% electric energy generation from on site alternative, sustainable sources.
ENERGY

Project will implement this practice – YES _____
Describe how this practice will be implemented and the benefits -

Project will not implement this practice – NO _____
Reason this practice can not be integrated into this project -

- 4 Specify and implement site furnishings, site improvement and exterior building materials that are manufactured locally - within a radius of 500 miles - Provide list of products and manufacturer location to be verified or evaluated with resolution compliance.
RESOURCES

Project will implement this practice – YES _____
Describe how this practice will be implemented and the benefits -

Project will not implement this practice – NO _____
Reason this practice can not be integrated into this project -

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- 5 Design 10% to 30% of parking lots (greater than 100 spaces) constructed with pervious pavements (eco-pavers, etc.). Consider pervious paver or pavement parking stalls and impervious (more durable) surfacing for drive aisles. STORMWATER

Project will implement this practice – YES _____
Describe how this practice will be implemented and the benefits -

Project will not implement this practice – NO _____
Reason this practice can not be integrated into this project -

- 6 Specify only indigenous plant species within 3,000 feet of the Township Greenbelt. Completely avoid exotic invasive plant species anywhere in the Township. Township will maintain a list of species to avoid. LANDSCAPE

Project will implement this practice – YES _____
Describe how this practice will be implemented and the benefits -

Project will not implement this practice – NO _____
Reason this practice can not be integrated into this project -

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- 7 Implement L.E.D. lighting fixtures for site lighting fixtures. Consider solar electric generation for pedestrian scale lighting systems and/or project signs. ENERGY

Project will implement this practice – YES _____
Describe how this practice will be implemented and the benefits -

Project will not implement this practice – NO _____
Reason this practice can not be integrated into this project -

- 8 Apply the following site planning techniques from the West WindsorTownship high density housing ordinance to all applications - *Site planning should respect climate and wind orientation to ensure proper building siting enabling energy conservation (e.g., maximize southern building exposure for use of solar energy, consider proper wind orientation to reduce negative effects of cold winter winds and to take advantage of cooling summer breezes). Implement landscape that reinforces these techniques.* ENERGY

Project will implement this practice – YES _____
Describe how this practice will be implemented and the benefits -

Project will not implement this practice – NO _____
Reason this practice can not be integrated into this project -

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- 9 Demonstrate exterior building design features or elements that promote passive solar shading and natural daylighting for interior spaces (window “awnings” and windows that enable indirect lighting of interior spaces) ENERGY

Project will implement this practice – YES _____

Describe how this practice will be implemented and the benefits -

Project will not implement this practice – NO _____

Reason this practice can not be integrated into this project -

- 10 Construct drip landscape irrigation in lieu of spray systems or install soil water sensors to conserve irrigation water use. WATER

Project will implement this practice – YES _____

Describe how this practice will be implemented and the benefits -

Project will not implement this practice – NO _____

Reason this practice can not be integrated into this project -

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- 11 Re-think stormwater management – do not think of stormwater as a by-product – manage stormwater as a resource. Implement stormwater harvesting elements such as collection of stormwater in cistern that is pumped into bldg for water closet flushing. Other harvesting elements might include pumping from cistern into water feature solar power pumps. STORMWATER

Project will implement this practice – YES _____

Describe how this practice will be implemented and the benefits -

Project will not implement this practice – NO _____

Reason this practice can not be integrated into this project -

- 12 Implement indigenously inspired art in the landscape (sculpture – garden – mural/ relief – artistic site furnishing etc.) - one application per building or per 300 residential units. SOCIAL

Project will implement this practice – YES _____

Describe how this practice will be implemented and the benefits-

Project will not implement this practice – NO _____

Reason this practice can not be integrated into this project -

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- 13 Reduce Light Pollution - Eliminate all light trespass from the building and site. SOCIAL

Project will implement this practice – YES _____
Describe how this practice will be implemented and the benefits -

Project will not implement this practice – NO _____
Reason this practice can not be integrated into this project -

- 14 Construction Waste Management - Divert construction, demolition and land clearing debris from landfill disposal. Recycle and or salvage at least 50% to 75% (by weight) all construction, demolition and land clearing waste. RESOURCES

Project will implement this practice – YES _____
Describe how this practice will be implemented and the benefits -

Project will not implement this practice – NO _____
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Other Green Building Practices that could be voluntarily implemented, exceeding building code requirements, to be listed for verification as part of code official review, but distinctly separate from the requirements of the building code review.

Project will implement other practices – YES _____

Describe what additional practices will be implemented -

Describe benefits expected from the additional practices -

Project will not implement additional practices – NO _____

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Possibly an additional practices list?

Water Use Reduction

Maximize water efficiency within buildings - use high efficiency fixtures, dry fixtures such as waterless urinals, and occupant sensors to reduce the potable water demand. WATER

Commissioning

Verify and ensure that fundamental building elements and systems are designed, installed and calibrated to operate as intended. ENERGY

Recycled Content

Specify a minimum of 25% of building materials that contain in aggregate, a minimum of 20% post-consumer or 40% post-industrial recycled content material. RESOURCES

Construction IAQ (Indoor Air Quality) Management Plan

Develop and implement an IAQ Management Plan for the construction and pre-occupancy phases of the building. Can use the Sheet Metal and Air Conditioning National Contractors Association (SMACNA) IAQ Guideline for Occupied Buildings under Construction, 1995. AIR

Low-Emitting Materials

Reduce the quantity of indoor air contaminants, e.g., VOCs from adhesives, sealants, paints, composite wood products and carpet systems, that are odorous or potentially irritating to provide installer and occupant health and comfort. AIR

Green Roofs

Implement green roof planting on flat roof multi-story buildings – alternatively implement light color for roof surface. ENERGY

Glazing

Construct with energy efficient window wall systems (_____ factor greater than code requirements) – ENERGY

HVAC

Construct with high-efficiency (____%) heating and cooling systems – ENERGY

Energy Star

Achieve certain level or compliance with energy star standards for building systems and fixtures – ENERGY