

Jamaica Mortgage Bank



“Build It Green Initiative” Construction Development Programme

Date Created	2011 March 25
Document Owner	Primary Market Finance Department
Document Status	Final

Primary Objective

In our quest to support the Government of Jamaica in promoting green developments, research has led us in identifying some green principles that will be adapted and used as a guide in assessing new developments/projects. Developments which comply with these green principles will benefit from special interest rates on their construction loans from the Bank if upon completion of construction; the development maintains the green principles as proposed. The project must satisfy at least one (1) of the criteria from the respective category.

Some of the green principles include:

1. Site Management
 - Building orientation or positioning
 - Roofing
 - Surfaces (example: drive-ways, parking areas etc)
 - Construction Waste Management
2. Water Efficiency and Conservation
 - Water Efficient Landscaping
 - Water Use Reduction
3. Energy Efficiency
 - Renewable Energy (solar power, wind power)
4. Healthy Living
 - Indoor Environmental Quality

The US Green Building Council's (Leadership in Energy & Environmental Design) Green Building Rating System was used as the source for this document.

1. Site Management

Building Orientation

Objective: To encourage orientation of buildings on site so as to optimize elements of natural light and reduce the absorption of heat.

Potential Technologies and Strategies:

- a) Orient the building on an east-west axis with the common living spaces facing south or within fifteen degrees (new construction).
- b) Provide proper shading by preserving and/or planting trees on the East and West perimeters of the building.
- c) Provide proper shading with calculated roof overhangs or awnings in order to allow sunshine into the interior during cool months and obstruct sunshine during the summer. Overhangs also reduce needed maintenance of the building exterior.

Roofing

Objective: Reduce heat gain through roof exposure while reducing the energy load on cooling systems.

Potential Technologies and Strategies:

- a) Install a light coloured roof to reduce the absorption of heat.
- b) Use a metal roofing material.

Surfaces

Objective: To assist on-site rainwater infiltration, drainage and reduce erosion.

Potential Technologies and Strategies:

- a) Loose gravel surface
- b) Two (2) paved wheel tracks
- c) Reinforced grass and gravel surface
- d) Hard permeable or porous surface

Construction Waste Management

Objective: To reduce the environmental impact and costs of building construction through the efficient use and reuse of materials along with a site construction plan.

Potential Technologies and Strategies:

- a) Develop and implement a construction waste management plan.
- b) Provide and implement a soil erosion and sedimentation control plan to keep the loss of topsoil and infiltration of sedimentation into the storm water system to a minimum.
- c) Use locally or regionally produced materials which boost the local economy and reduce transportation costs and environmental strain.
- d) Utilize salvaged materials.

2. Water Efficiency and Conservation

Water Efficient Landscaping

Objective: Limit or eliminate the use of potable water for landscape irrigation. Landscaping plan using drought-tolerant species, native plants, minimal lawn cover to conserve water and reduce the need for fertilizers and pesticides.

Potential Technologies and Strategies: Use high-efficiency irrigation systems and consider using rainwater and/or greywater for irrigation.

- a) Xeriscape landscaping (landscaping method which emphasizes water conservation in its use of drought resistant plants)
- b) Site appropriate lawns for example, play areas or recreational fields.
- c) Create and implement an independent irrigation system

Innovative Wastewater Technologies

Water Use Reduction

Objective: Maximize water efficiency within buildings to reduce the burden on NWC water supply and wastewater systems.

Potential Technologies and Strategies:

- a) New Construction – install fixtures or appliances with the minimum specifications; 1.6 gallons-per-flush toilets, 2.0 gallons-per-minute showerheads, 1.5 gallons-per-minute kitchen faucets, .5 gallons-per-minute bathroom faucets, front-loading washing machines.
- b) Consider reuse of rainwater and greywater for non-potable applications such as toilet and urinal flushing, mechanical systems and custodial uses.

3. Energy Efficiency

Using Renewable Energies

Objective: To supply at least 5% of the building's total energy use through the use of on-site renewable energy systems. By conserving energy tenants save money and enjoy increased comfort.

Potential Technologies and Strategies:

- a) Utilize active solar energy by installing photovoltaic or solar panels that provide a minimum of 10 percent of a project's electrical demand
- b) Install solar water heating system for common hot water needs.
- c) Install wind turbine for the generation and supply of electricity.
- d) Install energy saving lighting and appliances
- e) Install properly sized hot water heaters to ensure efficiency.
- f) Install energy performance windows and doors
- g) Make use of natural light; day lighting interior areas reduce the need for

4. Healthy Living

Indoor Environmental Quality

Objective: Provide living spaces that enhance resident health by eliminating toxic materials and increasing the quality of air.

Potential Technologies and Strategies:

- a) Proper ventilation by means of operable windows and a properly sized HVAC system providing fifteen (15) cubic feet per minute of fresh air per occupant.
- b) All bathroom exhaust fans, range hoods (on all stoves), and dryer vents must vent directly to the outdoors in order to control moisture and other air contaminants.
- c) Install hard surfaced flooring in order to avoid the collection of dust and other allergens that occur in carpet, which lead to health risks of residents.
- d) Use of hazardous free materials and finishes.

CHECK LIST

		Check if committed	Check if additional documentation is provided
1	SITE MANAGEMENT (25 points)		
	Building Orientation (10 points)		
a)	Position of building (eg. East-West)		
b)	Tree shading		
	Roofing (5 points)		
a)	Light Coloured Roof		
b)	Metal Roof		
	Surfaces (5 points) – Eg. Drive-ways, parking areas etc		
a)	Loose gravel surface		
b)	Two (2) paved wheel tracks		
c)	Reinforced grass and gravel surface		
d)	Hard permeable or porous surface		
	Construction Waste Management (5 points)		
a)	Disposal of waste materials		
b)	Re-use of salvaged materials		
c)	Soil Erosion Control		
2	WATER EFFICIENCY & CONSERVATION (30 points)		
	Water Efficient Landscaping (15 points)		
a)	Xeriscape or Dry landscaping (the use of drought resistant plants and soils or soil additives that can retain water)		
b)	Independent irrigation system for green space maintenance		
c)	Rainwater harvesting or collection		

	Water Use Reduction (15 points)		
a)	Low-flow fixtures/appliances		
b)	Reuse of rainwater		
3	ENERGY EFFICIENCY (35 points)		
	Renewable Energy		
a)	Photovoltaic or Solar Cells		
b)	Solar Water Heaters		
c)	Wind Turbine		
d)	Energy saving lighting and appliances		
e)	Install properly sized hot water heaters		
f)	Energy performance windows and doors		
e)	Daylighting or natural lighting		
4	HEALTH LIVING (10 points)		
	Indoor Environmental Quality		
a)	Proper Ventilation		
b)	Exhaust fans (optional)		
c)	Hard surface flooring		
d)	Use of hazardous free materials and finishes		

TOTAL SCORE: _____

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GRADING SHEET	
Score	Reduction in Interest Rate
0 – 60%	No reduction in basis point
61 – 79%	Reduced by 25 basis point
80% and over	Reduced by 50 basis point