

The Economic Case for Sustainable Development



How to Offer More Building for Less Money Using Available "Green" Construction Systems

Presented by:

Eco-\$mart, Inc.

An EPA ENERGY STAR Ally



The Florida House Learning Center



Created by the Nonprofit Florida House Institute for Sustainable Development and Sarasota County Cooperative Extension



The Florida House was opened to the public on Earth Day, 1994



About Eco-\$mart, Inc.



- An EPA ENERGY STAR Ally
- A Partnership with the Nonprofit Florida House Institute for Sustainable Development (FHI):
 - Free Eco-\$mart Materials Consultation
 - Distributes / Installs Approved Systems
 - Provides Energy Efficiency Ratings
 - Connects to Energy Efficient Financing
 - Educational Seminars for Public and Trades
- A Portion of Proceeds Benefit Nonprofit (FHI)



Why Sustainable Design?



- •Creates Positive Cash Flow for Financed Building
- •Can Reduce Construction Costs and Time
- •Increases Resale, Lease Value
- •Creates Free Publicity Generates Faster Sales
- •Improves Occupant Health and Safety
- •Decreases Maintenance Costs
- •Reduces Environmental Impact
- •Reduces Foreign Oil Dependence
- •Creates More Profit for Builder / Developer



Our Priorities for Selecting Green Building Materials



1. Enhances efficiency, health, disaster resistance.

2. Reduces maintenance, construction time, construction costs, operating costs.

3. If not capital cost saving, then at least creates positive cash flow for building owners.

4. Locally available, supportable.



Example Eco-\$mart Systems



- Advanced Wall and Roof Systems (fire, pest, wind resistant, efficient)
- Water Cooled and Solar Air Conditioning
- Fresh Air / Dehumidification Systems
- Low-E / Impact Resistant Windows
- Passive Solar Water Heating
- Brac Greywater System (toilet flushing using recycled shower water)
- Water Purification (under sink, whole house, commercial / industrial)
- Energy Efficient Lighting (LED, fluorescent, daylighting)
- Recycled Plastic Decking, Recycled Rubber Porous Paving / Paths
- Green Cabinetry and Countertops
- Bamboo, Coconut Palm, Cork Flooring, Natural Fiber Carpets
- No-VOC Interior Wall Paint
- Biobased Water-Blown Foam Insulation / Radiant Barrier Roof Coatings
- 0.8 Gallon Per Flush and 1.6 Gallon Flapperless Toilets
- Solar Electric (PV), Wind Power, and more!



Example Eco-\$mart Building Cost / Benefit



Building Size (square feet under air)	8,000		
	Standard	Eco-\$mart	
Additional Eco-\$mart Features / Costs	Building	Building	
Steel SIP Wall and Roof	No	-\$8,000	Additional Const.Cost:
T8 / T5 Electronic Ballast Lighting	No	\$2,000	\$0.00
22 SEER Water Cooled A/C w / Dehumid.	No	\$2,000	% Additional Const.Cost:
Passive Solar Water Heating	No	\$2,000	0.00%
Double Pane Energy Star Windows	No	\$2,000	Annual Utility Savings:
Capital Budget	\$600,000.00	\$600,000.00	\$5,760.00
Annual Electric Bills (60% Lower)	\$9,600.00	\$3,840.00	
Non-Combustible	No	Yes	
No Mold and Mildew	No	Yes	
Disaster Resistant (Wind, Floods, Fires)	No	Yes	
Healthy Indoor Air Quality	No	Yes	
Pest Resistant	No	Yes	
Low Noise Transmission	No	Yes	
Enhanced Lighting Effectiveness	No	Yes	
Low Maintenance	No	Yes	
Additional Interior Usable Footage (SF)	No	Yes	240
Annual Out-of-Pocket	\$9,600.00	\$3,840.00	
Savings, from Day	One >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	\$5,760.00	per year
MORE BUILDING FOR	LESS MONEY!		



Example Eco-\$mart Home Cost / Benefit



Home Size (square feet under air)	2500		
	Standard	Eco-\$mart	
Additional Eco-\$mart Features / Add. Costs	Home	Home	
E-Wall Poured Solid Concrete Wall	No	\$6,500	
Biobased Soy Foam Insulation or HPRS Roof	No	\$4,875	
Passive Solar Water Heater (after Federal tax credit)	No	\$3,250	Total Add. Const.Cost
Water-Cooled A/C	No	\$2,600	\$23,725.00
Energy Efficient Low-E Windows	No	\$2,600	% Additional Cost
Brac Greywater System	No	\$3,900	6.33%
Sale Price	\$375,000.00	\$398,725.00	
Mortgage (@ 7.0%)	\$2,494.88	\$2,652.73	
Utility Bills (60% Lower Electric, 30% Lower Water)	\$416.67	\$166.67	
Insurance Savings	\$0.00	-\$50.00	
Tax Benefit	\$0.00	-\$47.35	
Non-Combustible	No	Yes	
No Mold and Mildew	No	Yes	
Disaster Resistant - Hurricanes, Fires	No	Yes	
Healthy Indoor Air Quality	No	Yes	
Pest Resistant	No	Yes	
Low Noise Transmission	No	Yes	
Increased Resale Value**	No	Yes	\$62,190
Additional Interior Usable Footage (SF)	No	Yes	46
Monthly Out-of-Pocket	\$2,911.55	\$2,722.04	
Savings, from Day One >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>		\$189.51	per month
MORE HOME FOR LES	SS MONEY!		
** According to the National Association of Appraisers,	studies of resale	prices of homes	over the past 15 years hav
allowed them to attach an increased value to effcient he	omes. The value i	s calculated by t	aking one year's energy sa

(as certified by a state licensed energy rater, part of the national program) and multiplying the savings by \$20.73.



A Summary of the Economic Benefits of Sustainable Construction



- Positive Cash Flow to Building Owner
- Faster Construction
- Higher Appraisal Value
- Lower Maintenance and Insurance Costs
- Healthier, More Productive Work Environment
- Positive Media Attention
- More Money Invested in Local Economy
- Reduced Dependence on Foreign Oil



What to Do Now?



- 1. Contact Eco-\$mart to evaluate green options for your projects.
- 2. Ask us about our "Lunch and Learn" programs.
- **3.** Schedule a joint presentation with Eco-\$mart and your clients.
- 3. Keep in mind that it saves home or building owners money to build with Eco-\$mart systems - first month, every month.