

# the Quarries ecoVillage

Architectural Resource Team [ ART ]

## Sustainable Building Review Guidelines:

Building Materials Options 05/15/04, verified as current on 6/12/07:

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### Definitions:

Preferred: Nothing is "Required". Strongly encouraged and pre-approved.  
Conditional: Generally approved, relative to context and other alternatives.  
Prohibited: Not approved.

\* Amended from 11/04/03

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### Foundations:

#### Preferred:

"Faswall" [Light weight dry stack concrete and wood chip units]  
ICF's [Insulated Concrete Forms]  
"Superior Walls" [Pre-engineered, pre-cast and insulated concrete walls]  
Aerated Concrete  
Natural Stone  
Rubble Trench Foundations  
Boric Acid Termite Protection  
Stainless Steel Micro-screen Termite Protection

#### Conditional:

CMU's [Concrete Masonry Units]  
Poured Concrete

#### Prohibited:

Pressure Treated Wood  
Tires  
Toxic Chemical Termite Treatment

#### Notes:

All foundation walls, unvented and conditioned crawl space walls, and floor slabs are required to be insulated.

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### Structural Walls:

#### Preferred:

Post and Beam [Bolted steel bracket connections]  
Timber-Frame [Mortise and tenon joints]  
2 X 6 Wood Frame [Finger-jointed preferred]  
2 X 4 Wood Frame [w/ Rigid Insulation envelope]  
Steel Stud Frame  
ICF's [Insulated Concrete Forms]  
Straw Bale [Non-load bearing]  
Straw-Clay "  
Cob "

#### Conditional:

Earth Shelter  
Cordwood Masonry  
Pole Barn Frame  
Log

Stone  
"Superior Walls" [Pre-engineered, pre-cast and insulated concrete walls]  
Stress-Skin Panels [Non-structural]

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Modular  
Brick

Prohibited:

Poured Concrete

Notes:

Forest Stewardship Council [FSC] Certified wood is encouraged.

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### Exterior Wall Finishes:

Preferred:

"Hardi-Plank" [Fiber Cement]

Lime Stucco  
Cedar Siding  
Cedar Shingles

Conditional:

Brick  
Portland Stucco  
T-111

Prohibited:

Vinyl Siding

Redwood

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Tropical Hardwoods

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### Interior Wall Finishes:

Preferred:

Lime Stucco  
Local Wood  
Gypsum Dry Wall  
Ceramic Tile  
NO-VOC Paint  
Mineral Oil Wood finishes

Conditional:

Oil-Based Paint  
Latex Paint

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### Structural Floors:

Preferred:

Concrete Slab [w/ XPS Rigid Insulation and Radiant Hydronic tubing]  
"Truss-Joists" [Floor joists and/or rafters]

Conditional:

Wood frame

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### Floor and Trim Finishes:

Preferred:

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FSC certified wood  
Local Hardwood  
Cork  
Bamboo  
Jute or Sisal Carpet  
Reclaimed Heart Pine  
"Marmoleum"

[Linoleum]

Ceramic Tile  
Recycled Glass Tile  
Natural Stone  
Earthen Floor  
Water Based Urethane  
Conditional:  
Recycled Carpet  
Prohibited:  
\* Lauan [doors] and other Tropical Hardwoods

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### Structural Roofing:

Preferred:  
Post and Beam [Bolted steel bracket connections]  
Timber-Frame [Mortise and tenon joints]  
Engineered Lumber [Glulam, Paralam, Microlam, LVL]  
Stress-skin Panels [Structural]  
Steel

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### Roof Finishes:

Preferred:  
Cement Tiles [Fiber reinforced]  
Clay Tile  
Slate  
Thatch  
Recycled Aluminum  
Steel

Conditional:  
Copper  
Wood Shingles  
Living Roof System  
Rubber membrane [EPDM]

Prohibited:  
\* Asphalt Shingles  
\* "Ondura"  
Rubber Shingles

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### Insulation:

Preferred:  
Recycled Cotton  
Straw  
Cellulose  
Conditional:  
Fiberglass [No formaldehyde]  
Foam [Preferred for foundation walls and floor slabs]

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### Windows and Doors:

Preferred:  
Fiberglass frames  
Aluminum clad wood  
Conditional:  
All wood  
Prohibited:  
Vinyl and vinyl clad wood

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**Decks:****Preferred:**

Oak Timber Structure  
Local Locust Decking  
Wood-Composite Decking

**Conditional:**

ACQ Treated Wood

**Prohibited:**

Pressure Treated Wood

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**Mechanical Systems:****Preferred:**

Photovoltaics	[Electrical production]
Wind Power	"
Natural Daylighting	[Ventilating skylights w/ internal shades]
Passive Solar Heating	[w/ Thermal Mass]
Active Solar Hot Water	
Hydronic Radiant Heating	
Geothermal w/ Heat Pump	[High SEER - 12 or higher]
Masonry Heaters	
Fireplaces	[w/ Air-tight doors]
Passive Cooling	[Shading devices and Natural Ventilation]
"Unico"	[Mini-duct Air Conditioning and Dehumidification System]
Ductless Split System	[Air Conditioning]
Rainwater Harvesting	

**Conditional:**

Forced Hot Air	[High SEER Heat Pump - 12 or higher]
Central Air Conditioning	
Electric Base Board	
Electric Radiant Panels	

**Notes:**

- \* Ducting for Forced Air Systems should be sealed with mastic at all joints and seams to prevent leaks.
  - \* Running un-insulated ducting in unconditioned attics or crawl spaces is prohibited.
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