SANDERSON
Architecture • Planning • Interiors

Basic Guidelines for

Green Building and Sustainable Development

BUILDING MATERIALS

"Construction and furnishing of buildings accounts for about half of all raw material used in the United States. The energy used to manufacture building products totals five to seven percent of U.S. energy consumption." - Natural Resources Defense Council

CARPET	Minimum water-usage dyeing process High-percentage recycled pad, if applicable
CEILING TILES	High-percentage recycled mineral fiber material in tiles
DOORS*	No formaldehyde used in manufacturing Fast-growing wood species, such as maple or poplar
GYPSUM BOARD	Recycled newspaper and gypsum used in manufacturing
INSULATION	No formaldehyde used in manufacturing
RESTROOM PARTITIONS	Non-toxic paint finishes
SHEET FLOORING	Non-toxic vinyl flooring
WOOD FLOORING*	Fast-growing wood species, such as maple or poplar, if applicable
WOOD STAIRS*	Fast-growing wood species, such as maple or poplar

*Wood products certified by the Forest Stewardship Council

ENERGY CONSERVATION

" Buildings account for 70% of the nation's electricity use, and electric power plants, which burn coal to generate electricity, are the main source of global warming. Power plants cause other environmental and health problems, including acid rain, smog, and mercury poisoning in lakes and rivers. We can reduce these hazards by curbing energy use through sustainable building technologies, such as solar and wind power generation, and efficient design." - Natural Resources Defense Council

APPLIANCES	All appliances have Energy Star, SEER, and/or EER rating
CEILING FANS	Encourages air movement to avoid stratification
COOLING & HEATING	Strategically placed trees for shading Deep overhangs for window shading Operable windows for fresh air and natural exhaust, if applicable
HVAC UNITS	High efficiency equipment and ducted distribution systems Zoned control
INSULATION	Minimum R-30 in roof Minimum R-19 in walls and joist space of floors Polyethelyne vapor barrier and expanded polystyrene rigid insulation under slabs-on-grade (All carpet and/or pad over slabs-on-grade to be vapor permeable)
LIGHTING	Encourage natural light through Clerestories and windows into all occupied rooms Daylight Sensors to dim lights when natural light is available Occupancy Sensors to douse lights when room is unoccupied Fluorescent T-8, low-mercury lamps throughout Fluorescent up-lights in lieu of traditional troffers
ROOM VENTILATION	Fan units for boosted stale air and fume exhaustion
WATER HEATERS	On-demand equipment
WINDOWS	Low E glazing Reflective coating on windows exposed to direct sunlight Adjust size and performance based on compass exposure

WATER CONSERVATION

LANDSCAPING	Xeriscaping Native plant materials Drip irrigation system Timed system control
PAVING	Limited hard paved areas to avoid unnatural runoff Gravel or “GravelPave 2" porous paving for natural percolation
WATER USE	Low use fixtures throughout

INDOOR ENVIRONMENT

“The health, safety, and comfort of the buildings occupants are dependant on the attention paid to the design and ongoing maintenance of an environment that satisfies people’s sensory perception and feelings of well-being.” - G. Sanderson

GENERAL	Limit the introduction of harmful gasses and Volatile Organic Compounds (VOC)
BUILDING CLEANING	No chlorinated solvents used
FIBERBOARD	Made from softwood resins and formaldehyde-free synthetic resin Wood veneers of fast-growing species
FURNITURE	Encourage furniture made from recycled materials Encourage furniture made from FSC certified wood Reuse furniture from existing inventory Mobile filing systems to economize use of space Electronic filing systems to limit paper useage
PAINT	Low VOC, water based acrylic paints
WALL BASE	Vinyl, instead of rubber

Follow design and construction recommendations by the Energy and Environmental Building Association (EEBA). Reference “Builder’s Guide to Cold Climates” by Joseph Lstiburek

These Guidelines must be evaluated and augmented for each unique project in order to provide maximum compliance with standards for green development.