## The 5-Star Built Green Home at Suncadia

## www.thebuiltgreenhome.com

The Built Green™ Home at Suncadia is a custom home that highlights the environmental and health benefits of utilizing "green" materials and building techniques. The King County Solid Waste Division (Washington State) provides this list of the environmentally-friendly features of this home to show the potential benefits of green products.

COMPANY/ MANUFACTURER

PRODUCT, SYSTEM OR TECHNOLOGY

## **FEATURES OF GREEN MATERIALS**



King County, WA, Green Building Web Site http://www.metrokc.gov/dnrp/swd/greenbuilding/index.asp

COMPANY/ MANUFACTURER WEB SITE



http://www.builtgreen.net

ENVIRONMENTALLY SUSTAINABLE PRODUCT

R = Recycled or Salvaged Percentage; L = Locally Produced;
I = Indoor Air Quality; E = Energy Efficient;
C = Conserves Water, D = Durable,
S = Sustainable Harvest



CMI Homes, Builder -http://www.cmihomes.com/ Brenda Nunes, Developer

ENVIRONMENTAL DISADVANTAGES OF CONVENTIONAL PRODUCTS
\*Transportation Costs also imply demands for petroleum products

			S = Sustainable Harvest	
XTERIOR SITE			1000/ P. I	
Trees milled on-site	CMI Homes milled trees on-site for various uses	http://www.cmihomes.com/	100% R, L	Transportation costs and associated air pollution and pesticide impact to water tables, Increased tipping feat landfills
Landscaping Timber	CMI Homes milled trees on-site	http://www.cmihomes.com/	100% R, L	Transportation costs and associated air pollution and pesticide impact to water tables, Increased tipping fee at landfills
Stone veneer retaining wall	Montana Rockworks	http://www.montanarockworks.com/	D	Energy use from the manufacture & transport of replacement materials
Native plants			L, C	Potential need for chemical fertilizers or pesticides, and irrigation with potable water, Invasive species
Drought tolerant landscaping			L, C	Increased water use
Topsoil retained	CMI Homes stockpiled topsoil for reuse	http://www.cmihomes.com/	L, E, C - Saves on use of water for irrigation	Transportation costs and associated air pollution increased, Tipping fees
Driveway pavers	Eco-Stone provided by Mutual Materials	http://www.mutualmaterials.com/default.asp	L, C, D	High Impact development, Loss of water retention
Patio pavers	Mutual Materials	http://www.mutualmaterials.com/default.asp	L, C, D	High Impact development, Loss of water retention
Low impact development	Associated Earth Sciences, Inc.	http://www.aesgeo.com/	L, E, C	Large infrastructure required to handle storm water when it is not handled "naturally"
EXTERIOR & BUILDING ENVELOPE				
Stone veneer siding	Montana Rockworks	http://www.montanarockworks.com/	E, D, L	
House wrap	DuPont Tyvek	http://www.tyvek.com	E, I	
Cedar siding	NW Siding & Prefinishing	http://www.nw-siding.com/	L, D	
Metal roof			R, E, D	
Windows	JELD-WEN provided by Vander Hoek Windows & Doors	http://www.jeld-wen.com/	L, E	
Patio doors	JELD-WEN provided by Vander Hoek Windows & Doors	http://www.jeld-wen.com/	L, E	
Porch timbers	CMI Homes milled from trees on-site	http://www.cmihomes.com/	R, S, L, D	Transportation costs and associated air pollution, Pesticide impact to water tables, Increased tipping fees a landfills
Insulated Concrete Forms (ICFs)	ARXX Building Products provided by Glacier Northwest	http://www.arxxbuild.com/	L, I, E	Increased waste on jobsite, Less energy efficiency
Spray foam insulation	Icynene	http://www.icynene.com/	I, E	Indoor air quality risks, No biodegradability
Sealed crawl space	CMI Homes	http://www.cmihomes.com/	I, E	
Site lighting - Light Fixtures	Rejuvenation	http://www.rejuvenation.com/	L, E	
Site lighting - Light Fixtures	Inland Lighting	http://www.inlandlighting.com/home.htm	L, E	Increased Energy Use
Site lighting - Light Fixtures	Alexander Lighting	http://www.alexanderlighting.com/	L, E	Increased Energy Use
FSC-certified decking	Tigerwood provided by Environmental Home Center	http://www.environmentalhomecenter.com/home.shtml	Certified by the Forest Stewardship Council as sustainably harvested, naturally re resistant; renewable resource	of Compared to plastic composites this is all natural; compared to other woods, many are from clear-cut forest or from newer less durable plantation-grown trees, Pesticide impact to water tables, Does not address social equity in labor or region
Engineered lumber	Plywood Supply	http://www.plywoodsupply.com/	R, D, L and saves virgin timber by using scrap or waste wood pieces	Increases demand of large diameter wood
INTERIOR SYSTEMS				
Geothermal heat pump	Earthheat	http://www.earthheat.com/	L, E - Reduces energy up to 70%	Increased Energy Use
Furnace	Hi-Velocity provided by Energy Saving Products	http://www.hi-velocity.com/north_america.html	E	Increased Energy Use
Radiant floor heating	Thermal Supply	http://www.thermalsupply.com/	E	Energy Use, Negative effects on indoor Air Quality
Hydronic pump control	Hydronic Control Panels		C, E	Increased Energy Use
Air purifier	Sun Pure Filters/Ultra Sun Technologies	http://www.ultrasun.com/		Increased Energy Use
Heat recovery ventilator	Fantech provided by Cascade Products	http://www.fantech.net/	!	Increased Energy Use
Tankless water heaters	Rinnai provided by Cascade Products	http://www.foreverhotwater.com/index.shtml	E, C	Increased Energy Use
Hot water recirculating	Metlund On-Demand Recirculating Hot Water Control Switch	http://www.gothotwater.com/	E, C	Energy Use, Increased demand for space
Home automation	The Music Room, a division of ProComm	http://www.pro-comm-online.com/	E - Saves energy by using controls to heat only when necessary	Increased Energy Use
Gas fireplace	Fireside Hearth & Home	http://www.firesideusa.com/builder/firesideSolutions/index.asp	E, I	Traditional wood fireplaces often leak soot and fumes into the home
INTERIOR FIXTURES				
Caroma dual-flush toilet	Caroma provided by the Environmental Home Center	http://www.caromatoilets.com/	C - The half-flush uses half the water (0.8 gallons per flush) of the full flush (1.6 gallons per flush)	Most conventional toilets use full water flush for liquids and solids, therefore using more water than the dua flush models
Toto dual-flush toilet	Toto provided by Builders Hardware & Supply	http://www.totousa.com/index.asp	C - The half-flush uses half the water (0.8 gallons per flush) of the full flush (1.6 gallons per flush)	
Granite sink - Stone Forest Sink	Stone Forest provided by Builders Hardware & Supply	http://www.stoneforest.com/	D	Energy use from the manufacture & transportation of replacement materials
Copper sink - guest bath	Handmade in Mexico of recycled copper, provided by Environmental Home Center	http://www.environmentalhomecenter.com/home.shtml	100% R - Made from 99% recycled copper, also Fair Trade Federation business	
Bronze sink	Builders Hardware & Supply	http://www.builders-hardware.com/	100% R. D	Energy use from the manufacture & transportation of replacement materials
O O	11.7	http://www.nativetrails.net/index.htm	100% R. D	Increased demand for raw materials
Copper sink	I Native Trails provided by Builders Hardware & Supply			
Copper sink Copper bathtub	Native Trails provided by Builders Hardware & Supply  Builders Hardware & Supply	•		
Copper sink Copper bathtub Handmade glass light fixture	Builders Hardware & Supply  Builders Hardware & Supply  Alexander Lightling	http://www.builders-hardware.com/ http://www.alexanderlighting.com/	100% R, D	Increased demand for raw materials Transportation costs, Increased Energy Use

APPLIANCES				
Dishwasher	Whirlpool	http://www.whirlpool.com/home.jsp	E - Uses 25% less energy than federal guidelines, C, Energy Star-rated	Increased Energy Use
Refrigerator	Whirlpool	http://www.whirlpool.com/home.jsp	E - Uses 15% less energy than federal guidelines, C, Energy Star-rated	Increased Energy Use
Gas Stove	Whirlpool	http://www.whirlpool.com/home.jsp	E - Energy Star-Rated	Increased Energy Use
Microwave			0,	V/
Clothes Dryer	Whirlpool	http://www.whirlpool.com/home.jsp	E - Energy Star-Rated	Increased Energy Use
Clothes Washer	Whirlpool	http://www.whirlpool.com/home.jsp	E - Uses 50% less energy than federal guidelines; C - Uses 50% less water than conventional clothes washers, Energy Star-Rated; Clothes need less dryer time	Increased Energy Use, Increased Water Use
Central vacuum	Beam Central Vacuum Systems	http://www.beamvac.com/		Increased dust, pollution, and allergens in the home
INTERIOR FINISHES				
Natural stone fireplace	Montana Rockworks	http://www.montanarockworks.com/		
Recycled glass countertop - kitchen	IceStone provided by Ambiente Tile	http://www.ambientetile.com/	R - 75% recycled glass in a cement mix	Increased demand for raw materials
Composite countertop - bathroom	Produced by Squak Mountain Stone, supplied by the Environmental Home Center	http://www.squakmountainstone.com/	R, L, I, D - King County Link-Up Partner, Manufacturer offsets carbon emissions from cement manufacturing by purchasing Green Tags from the utility, recycled paper sourced from developmentally disabled adults	Increased demand for raw materials, Transportation costs
Concrete countertop - bathroom	RAS Contracting Corporation	http://www.rascontracting.com/	L, I	Increased demand for raw materials, Transportation costs
Formaldehyde-free cabinets - kitchen	Manufactured by Neil Kelly, purchased at Environmental Home Center	http://www.neilkelly.com/	L, I - All low-VOC products	Transportation costs, Negative Impacts to Indoor Air Quality
Formaldehyde-free window seats - great room	Manufactured by Neil Kelly, purchased at Environmental Home Center	http://www.neilkelly.com/	L, I	Transportation costs, Negative Impacts to Indoor Air Quality
Formaldehyde-free window seats - dining room	Manufactured by Neil Kelly, purchased at Environmental Home Center	http://www.neilkelly.com/	L, I	Transportation costs, Negative Impacts to Indoor Air Quality
Formaldehyde-free cabinets - master bedroom	Manufactured by Neil Kelly, purchased at Environmental Home Center	http://www.neilkelly.com/	L, I	Transportation costs, Negative Impacts to Indoor Air Quality
Alder cabinets - throughout home	Pacific Crest Cabinets	http://www.pacificcrestcabinets.com/	L	Transportation costs
Alder bookshelves	Pacific Crest Cabinets	http://www.pacificcrestcabinets.com/	L	Transportation costs
Reclaimed timber fireplace mantel	CMI Homes milled trees on-site	http://www.cmihomes.com/	100% R, L	Transportation costs and associated air pollution and pesticide impact to water tables, Increased tipping fee at landfills
Earth plaster walls	Manufactured by American Clay Earth Plaster Walls, purchased at Environmental Home Center	http://www.americanclay.com/index.html	R, I	Impacts Indoor Air Quality, Increased Demand for raw materials
Low-VOC paint	Horizon by Rodda Paint	http://www.roddapaint.com/	I	Transportation Costs, Impacts indoor Air Quality
Glass mosaic - loft	Acappella Design	http://www.acappelladesign.com/	L	Impacts Indoor Air Quality
Recycled glass tile	Oceanside Tile provided by Ambiente Tile	http://www.ambientetile.com/	R - 85% recycled glass	·
Recycled glass tile	Interstyle Ceramic & Glass Ltd.	http://www.interstyle.bc.ca/glass.html	L	Transportation Costs
INTERIOR FLOORING				
Cork planks	Vida Cork Plank Flooring provided by the Environmental Home Center	http://www.environmentalhomecenter.com/shop.mv?CatCode=PRODUCT&ProdCode=CORK PLANK	S, I, D	Impacts Indoor Air Quality, Increases demand on natural resources
FSC-certified Teak	Toucon Teak	http://www.toucanteak.com/index.html	S, I	Compared to other woods, many are from clear-cut forests or from newer less durable plantation-grown tree Pesticide impact to water tables, Does not address social equity in labor or region
FSC-certified Australian chestnut flooring	EcoTimber provided by the Environmental Home Center	http://www.environmentalhomecenter.com/home.shtml	I, D, S	Compared to other woods, many are from clear-cut forests or from newer less durable plantation-grown tree Pesticide impact to water tables, Does not address social equity in labor or region
Slate Floor	Ambiente Tile	http://www.ambientetile.com/	I, D	
Slate and bronze tile "rug" - entry	Ambiente Tile	http://www.ambientetile.com/	I, D	
Eco-terrazzo tile	Norberry Tile	http://www.norberrytile.com/	R - 80% recycled	Increased demand for raw materials
Ceramic tile	Bought from Dal Tile	http://www.daltile.com/	R - 50% recycled	Increased demand for raw materials
Recycled glass tile	Debris Tile provided by the Environmental Home Center & Norberry Tile	http://www.norberrytile.com/	R - 40% recycled, D	Increased demand for raw materials
Terra Green glass tile	Terra Green Ceramics	http://www.terragreenceramics.com/	R - 50% recycled	Increased demand for raw materials
Concrete tile	Smith-Laredo tile, provided by Ambiente Tile	http://www.smith-laredo.com/	D, I	
CERTIFICATIONS				
Built Green Five-Star Home	Built Green	www.builtgreen.net	E - 30% More energy efficient than a typical new home	Homes at this high certification level are verified to have met the many criteria of Built Green
Energy Star Home	ENERGY STAR Homes Northwest	www.northwestenergystar.com	E - 15% More energy efficient than a typical new home in Washington	Homes are independently verified to meet strict energy efficient standards
Energy Star Certified Appliances & Lighting	ENERGY STAR	www.energystar.gov	71	, , ,
FSC Certified Wood	Forest Stewardship Council	www.fscus.org	Forestry practiced in an environmentally responsible, socially beneficial, and economically viable way	Chain-of-Custody ensures that wood has been grown, harvested, and handled in a sustainable way throughout the process
Green Seal Certified Paint	Green Seal	www.greenseal.org	Independently tested and certified as low volatile organic compounds (VOC's), containing no harmful chemical components, and is resistant to mold and mildew	Certification assures that the product has met certain low levels of VOC's (volatile organic compounds) and other potential air pollutants

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