

FRANKLIN COUNTY ECONOMIC DEVELOPMENT AND PLANNING DEPARTMENT Green Affordable Housing Checklist						
			Included in Project			
Building Design and Construction Guidelines	Description	Benefit	YES	NO	Not sure; will include in bid package to determine cost	N/A
Energy Efficiency						
Energy Efficiency Lighting	<p>Energy efficient exterior lighting, such as high pressure sodium. Should be appropriately sized for the location.</p> <p>Interior fluorescent bulbs and (where practical and appropriate) fixtures produce light quantity that is comparable to incandescent, while expending less energy.</p>	<p>Energy efficient lighting reduces energy consumption and lowers utility bills.</p> <p>One compact fluorescent bulb will pay itself back over 10 times over the course of its life through reduced energy use.</p>	X			
<p><i>If included, please describe how the item will be used in the project.</i> Replacement bulbs will be compact fluorescent. Where practical, fluorescent fixtures will be installed.</p>						
<p><i>If not included, please describe why.</i></p>						
Efficient Appliances	<p>Refrigerators, water heaters, stoves, dishwashers, and washing machines that are designed to use less energy and water. Most efficient appliances qualify for Energy Star designation.</p>	<p>Appliances, particularly refrigerators and water heaters, are some of the major sources of residential energy use. Reducing energy and water use lowers utility bills while benefiting the environment.</p>	X If Appl.			
<p><i>If included, please describe how the item will be used in the project.</i> Replacement water heaters now being required in specs are better than average efficiency. Replacement furnaces are Energy Star rated. Our program guidelines do not include the replacement of refrigerators, stoves, dishwashers or washing machines.</p>						

<i>If not included, please describe why.</i>						
FRANKLIN COUNTY ECONOMIC DEVELOPMENT AND PLANNING DEPARTMENT Green Affordable Housing Checklist						
				Included in Project		
Building Design and Construction Guidelines	Description	Benefit	YES	NO	Not sure; will include in bid package to determine cost	N/A
Use of Solar or Thermal Heating/AC	Whenever cost effective, install solar or thermal heating and/or cooling units.	The installation of solar or thermal heating and/or cooling units will reduce reliance on solid fuels. The reduction on the use of solid fuels will reduce pollution in the area.		X		
<i>If included, please describe how the item will be used in the project.</i>						
<i>If not included, please describe why.</i> Not rehab practical due to costs.						
Landscaping						
Low-water Landscape Designs	Low-water landscape designs, such as xeriscape, reduce water use by emphasizing native and/or drought-tolerant plants, elimination of turf areas, and minimizing maintenance.	Low-water designs reduce water and maintenance bills and impacts on local water supply infrastructure.		X		
<i>If included, please describe how the item will be used in the project.</i>						
<i>If not included, please describe why.</i> This is not a major rehab activity.						

FRANKLIN COUNTY ECONOMIC DEVELOPMENT AND PLANNING DEPARTMENT Green Affordable Housing Checklist						
			Included in Project			
Building Design and Construction Guidelines	Description	Benefit	YES	NO	Not sure; will include in bid package to determine cost	N/A
Water Efficient Irrigation	Water-efficient systems, such as drip irrigation and the use of on-site collection systems for watering.	Water-efficient systems help plant growth and overall health by eliminating over watering or excessive drying. They also lower water bills and reduce impacts on water supply infrastructure.		X		
<i>If included, please describe how the item will be used in the project.</i>						
<i>If not included, please describe why.</i> This is not a major rehab activity.						
Engineered Lumber and Wood Alternatives						
Oriented Strand Board (OSB)	OSB is an alternative to plywood for sheathing, flooring, and roofing.	Plywood requires the use of large-size typically old growth trees. OSB is made from small pieces of wood, thus eliminating or reducing impacts to forests.	X			
<i>If included, please describe how the item will be used in the project.</i> OSB is currently used for sheathing, flooring, and roofing.						
<i>If not included, please describe why.</i>						
Wood I-Beam	Wood I-Beams are an alternative to 2 x 6s or 2 x 8s used for floor and roof joists.	Wood-I-Beams are engineered to use less wood to perform the same function and are often straighter, thus minimizing wood waste.		X		
<i>If included, please describe how the item will be used in the project.</i>						
<i>If not included, please describe why.</i> The nature of major rehab would require sporadic use of Wood I-Beams at best.						

FRANKLIN COUNTY ECONOMIC DEVELOPMENT AND PLANNING DEPARTMENT Green Affordable Housing Checklist						
			Included in Project			
Building Design and Construction Guidelines	Description	Benefit	YES	NO	Not sure; will include in bid package to determine cost	N/A
Laminated Wood Fiber Products	Gluelam, parlam, microlam, etc. are alternatives to large-dimension lumber for trusses, beams, and headers.	Laminate products provide the same strength while eliminating the need to use large-dimension lumber from old-growth sources.		X		
<i>If included, please describe how the item will be used in the project.</i>						
<i>If not included, please describe why.</i>						
The nature of major rehab would require sporadic use of Laminated Wood Fiber Products at best.						
Indoor Air Quality						
No-VOC (volatile organic compound) Paint	No-VOC paint is used exactly like conventional paint. Current no-VOC paints are suitable for indoor use only, subject to ongoing maintenance viability.	No-VOC paint does not eliminate odors related to OCs. Organic chemicals are widely used as ingredients in household products like paint, adhesives, cleaning supplies, etc. VOCs can cause eye, nose, and throat irritation; loss of coordination; and potentially damage the liver and central nervous system. Outside, VOCs can bond with other pollutants and create ground level ozone.	X			
<i>If included, please describe how the item will be used in the project.</i>						
MORPC is including non-VOC paint language in RESPEC software for bid specifications.						
<i>If not included, please describe why.</i>						

FRANKLIN COUNTY ECONOMIC DEVELOPMENT AND PLANNING DEPARTMENT Green Affordable Housing Checklist						
			Included in Project			
Building Design and Construction Guidelines	Description	Benefit	YES	NO	Not sure; will include in bid package to determine cost	N/A
Carbon Monoxide Detector	Carbon monoxide detectors monitor the level of this gas in individual dwelling units.	Carbon monoxide is a common indoor air pollutant created by the combustion of natural gas from stoves and heaters and is harmful to human health.	X			
<p><i>If included, please describe how the item will be used in the project.</i> Night Hawk or an equivalent carbon monoxide detector is included in RESPEC bid specs. They are installed in all housing units with either a gas or oil-burning combustion furnace or hot water heater.</p>						
<p><i>If not included, please describe why.</i></p>						
Seal Exposed Particleboard	Particleboard typically includes formaldehyde. Sealing with flat, latex-based primer or other suitable material can prevent the off gassing of formaldehyde.	EPA ranks formaldehyde as a probable human carcinogen. Exposure to formaldehyde can cause eye, nose and throat irritation; skin rashes; headaches; nosebleeds; and nausea.	X			
<p><i>If included, please describe how the item will be used in the project.</i> The RESPEC language has been modified to include the sealing of exposed or otherwise unfinished particleboard in products installed through the rehab process.</p>						
<p><i>If not included, please describe why.</i></p>						

FRANKLIN COUNTY ECONOMIC DEVELOPMENT AND PLANNING DEPARTMENT Green Affordable Housing Checklist						
			Included in Project			
Building Design and Construction Guidelines	Description	Benefit	YES	NO	Not sure; will include in bid package to determine cost	N/A
Formaldehyde-Free Cabinets and Counters	Particleboard or medium density fiberboard (MDF) in cabinets and counters can be substituted with formaldehyde-free MDF alternatives or products such as strawboard and wheatboard made from agricultural waste.	Cabinets and counters are typically made of particleboard that uses formaldehyde as the binding agent. Minimizing or eliminating formaldehyde-based materials has a positive impact on indoor air quality.		X		
<i>If included, please describe how the item will be used in the project.</i>						
<i>If not included, please describe why. The cabinets required in the specs are low emission. The manufacturer is KCMA and they are EDP certified. Counter tops are sealed to reduce emissions.</i>						
Building Materials						
Ceramic Tile	Ceramic tile can be used in kitchen and bathroom and counter tops may be applicable to new construction and major rehab only.	Ceramic tile is long lasting and does not give off gas.	X			
<i>If included, please describe how the item will be used in the project.</i> Ceramic tile is generally installed in bathroom tub surrounds unless the homeowner requests a seamless surround.						
<i>If not included, please describe why.</i> However, it has been found that Formica is a better replacement due to ongoing maintenance issues with a porous surface (i.e., grout).						

FRANKLIN COUNTY ECONOMIC DEVELOPMENT AND PLANNING DEPARTMENT Green Affordable Housing Checklist						
			Included in Project			
Building Design and Construction Guidelines	Description	Benefit	YES	NO	Not sure; will include in bid package to determine cost	N/A
Linoleum Flooring	Linoleum flooring is made of natural, renewable substances such as amber, chalk, cork, and jute. It can be used as an alternative to sheet vinyl, vinyl composite tiles, or carpet.	Most flooring products such as sheet vinyl and carpet give off gas volatile organic compounds (VOCs) and are made from non-renewable, petroleum-based products. In contrast, linoleum minimizes off gassing and is made from renewable substances.		X		
<i>If included, please describe how the item will be used in the project.</i>						
<i>If not included, please describe why.</i> While linoleum floors may last 40+ years as opposed to the 20-30 years for sheet vinyl, the cost is considerably higher (i.e., up to \$4.99 per square foot for linoleum versus \$2 to \$3 per square foot for vinyl. Also, the installation cost is much higher (\$5 to \$7 per SF for linoleum versus \$0.75 to \$2 per SF for vinyl.						
Demolition Recycling 25%	The goal is to recycle 25% of the waste material generated by rehabbing a dwelling.	The recycled materials will be used in other products and reduce what goes into the landfill.		X		
<i>If included, please describe how the item will be used in the project.</i>						
<i>If not included, please describe why.</i> The contractor is responsible for the removal of all construction debris.						
Purchasing Building Materials from Franklin County Suppliers	The contractor will make a good faith effort to purchase supplies from Franklin County suppliers.	This practice will impact the local economy with job creation and increase the local tax base.	X			
<i>If included, please describe how the item will be used in the project.</i> A nonbinding recommendation is included in the RESPEC software language for contractors to obtain materials and labor locally						

as needed.
If not included, please describe why.

**FRANKLIN COUNTY ECONOMIC DEVELOPMENT AND PLANNING DEPARTMENT
Green Affordable Housing Checklist**

			Included in Project			
Building Design and Construction Guidelines	Description	Benefit	YES	NO	Not sure; will include in bid package to determine cost	N/A
Recycled Content Insulation	Both fiberglass and blown cellulose insulation have recycled content. Fiberglass products are used identically to standard products. Blown cellulose (made of recycled newsprint) requires a special installer.	Recycled-content products support statewide solid waste diversion goals. Cellulose insulation provides a tighter enclosure than fiberglass.	X			

If included, please describe how the item will be used in the project.
We specify that blown cellulose insulation be used wherever loose fill is appropriate. Where batts are needed, we specify fiberglass.

If not included, please describe why.

HOMEOWNER EDUCATION

Homeowner Awareness/Education	Educate the homeowner via pre- and post-counseling on how to maintain the green elements that have been added to the dwelling.	The homeowner will be able to properly maintain the green elements that have been added to the dwelling, ensuring the useful life of the improvements. In addition, the homeowner can educate others on the benefits of adding green elements.	X			
--------------------------------------	--	--	----------	--	--	--

If included, please describe how the item will be used in the project.
Staff currently has Energy Star appliance brochures for distribution. Other materials will be obtained and/or developed to educate homeowners to the benefits of maintaining the green elements added to their home.

If not included, please describe why.

Please list below those items that were identified in the Green Affordable Housing Checklist for inclusion in the bid package along with the bid price and the price for the comparable conventional item.

FRANKLIN COUNTY ECONOMIC DEVELOPMENT AND PLANNING DEPARTMENT Green Affordable Housing Checklist			
GREEN ITEM	BID COST	STANDARD ITEM	BID COST
Energy Efficient Lighting	\$15 to \$45 per fixture	Incandescent	\$15 to \$25 per fixture
Efficient Hot Water Tank & Furnaces	\$875 \$3,500		\$525
		80% Furnace	\$2,600
Oriented Strand Board (OSB)	\$1.25 SF	Plywood	\$1.75 SF
No-VOC Paint	\$1.75 SF	VOC Paint	\$1.50 SF
Carbon Monoxide Detector	\$100	None	\$-0-
Seal Exposed Particle Board	\$200	None	\$-0-
Ceramic Tile	\$400 per enclosure	Fiberglass or PVC	\$300
Recycled Content Insulation	\$1 SF	None	None
Homeowner Awareness/ Education	\$120 (Two hours of education and materials)	None	None

These prices are based on estimates as of June 2007. They are subject to fluctuation on a regular basis.

Prepared by: Mid-Ohio Regional Planning Commission
285 East Main Street
Columbus, Ohio 43215-5272
(614) 233-4108