RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MILPITAS ESTABLISHING GREEN BUILDING POLICIES

WHEREAS, the Santa Clara County Cities Association has adopted three recommendations for voluntary adoption by all Santa Clara County cities; and

WHEREAS, the LEED rating system of the US Green Building Council is recognized internationally as the standard for commercial and industrial "green" building design and evaluation; and

WHEREAS, the Build It Green GreenPoint Rated rating system is recognized as the state-wide standard for residential green building design and evaluation; and

WHEREAS, the City of Milpitas recognizes and values the importance of green building measures as a means of further reducing energy consumption at City facilities.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Milpitas that the following green building policies are adopted:

1. The U.S. Green Building Council's LEED rating system for non-residential buildings and Build It Green's GreenPoint Rated system for residential buildings as the official green building standards for the City of Milpitas.
2. Planning applications for new buildings submitted after March 1, 2008, shall include a completed LEED or GreenPoint Rated checklist for informational purposes.
3. New city buildings and renovation projects over 5,000 square feet initiated after March 1, 2008 shall be evaluated for feasibility to achieve at least a LEED Silver certification.

PASSED AND ADOPTED this _____ day of _____ 2008, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

_____
Mary Lavelle, City Clerk

APPROVED:

_____
Jose S. Esteves, Mayor

APPROVED AS TO FORM:

_____
Michael Ogaz, City Attorney

Near-Term Green Building Policy Recommendations
Santa Clara County Cities Association Green Building Collaborative
November 2007

Many cities are taking the lead on climate protection and global warming initiatives. Below are three near-term policy recommendations as suggested by the Cities Association Green Building Collaborative to advance our collective goals around environmental sustainability. These are intended to be a first step—actions that local governments could pursue immediately. The intent is to provide easy first steps while discussions about more comprehensive policies are underway. The idea is to not wait until those discussions are finalized but to act now on policy recommendations that can and should be pursued and adopted quickly.

1) Recognize/Adopt LEED & GreenPoint Rated
Local governments should formally recognize and adopt the U.S. Green Building Council's LEED® Rating system[1] and Build It Green's GreenPoint Rated[2] system (residential) as the official green building standards for their jurisdictions.

Rationale: The adoption of the same sets of standards will create green building programs that are easier to understand and more consistent across jurisdictions. These two sets of standards have been selected because they are:

- Nationally recognized & familiar to a large and growing number of design and building professionals
- Consensus based & easy to use
- Consist of a set of realistic yet robust standards
- Target quantifiable achievements, based on recognized standards with clear performance benchmarks
- Incorporate independent, third party verification

2) Complete Green Checklist as a part of Planning Application
As a part of a planning application, require the submittal of a completed LEED or GreenPoint Rated checklist. This recommendation does not require the applicant to adopt green building practices but requires a completed checklist for the project.

Rationale: Many policy proposals suggest setting a green threshold. However, in the absence of good information about current green building practices, determining that threshold can be difficult. Requiring the submittal of a checklist without asking for any change in the project is a first step that serves to:

- Educate the private sector about green building and
- Benchmark conventional building practices in order to inform policy-making at a later date

3) Require Public Buildings to be LEED Silver
Local governments should adopt a policy for achieving LEED Silver certification or better for all public new construction and renovation projects over 5,000 square feet.

Rationale: In order to ready the private sector and develop the green building industry, government should help by leading the way. Government adoption of green building practices will further spur the green building market, including the development of professional expertise, products, and ultimately serve to bring down costs.

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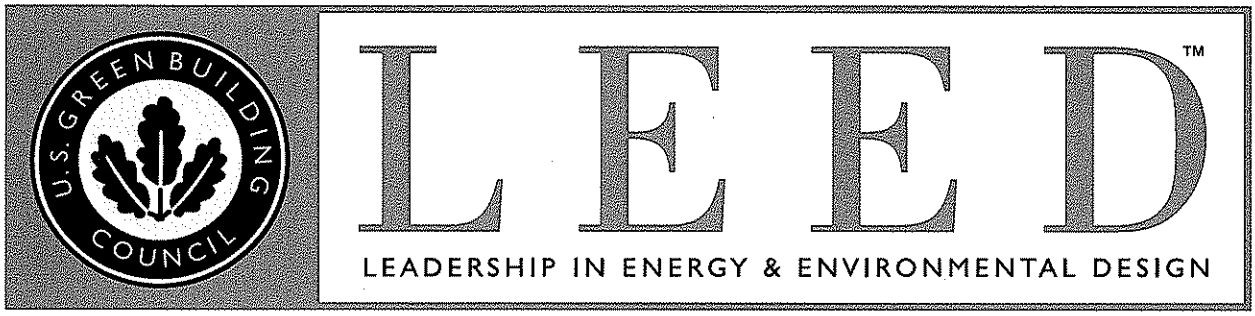
[1] LEED stands for "Leadership in Energy and Environmental Design". See www.usgbc.org/LEED for further information on the LEED rating system and its variations.
[2] Information on the Green PointsRated residential green building rating system can be found at: www.builditgreen.org/greenpointrated

In addition to the environmental and public health benefits, green building is a financially responsible path for local governments to follow. Independent studies show that green building costs are the same or slightly higher to those of standard buildings. Increased costs are often dependent upon how and when the decision to build green is built into the process.

The average premium for green buildings is slightly less than 2%, or $3-5/ft2. That 2% increase can result in a life cycle savings of 20% of total construction costs. For example, an initial upfront investment of up to $100,000 to incorporate green building features into a $5 million project would result in a savings of $1 million in today's dollars over the life of the building[3].

[3] Davis Langdon Report and State of California Report http://www.davislangdon.com/upload/images/publications/USA/2004%20Costing%20Green%20Comprehensive%20Cost%20Database.pdf and http://www.usgbc.org/Docs/News/News477.pdf



Green Building Rating System

For New Construction & Major Renovations

(LEED-NC)

Version 2.1

November 2002

Revised 3/14/03

Project Checklist

Sustainable Sites

14 Possible Points

Y	Prereq 1	**Erosion & Sedimentation Control**	Required
	Credit 1	**Site Selection**	1
	Credit 2	**Urban Redevelopment**	1
	Credit 3	**Brownfield Redevelopment**	1
	Credit 4.1	**Alternative Transportation**, Public Transportation Access	1
	Credit 4.2	**Alternative Transportation**, Bicycle Storage & Changing Rooms	1
	Credit 4.3	**Alternative Transportation**, Alternative Fuel Vehicles	1
	Credit 4.4	**Alternative Transportation**, Parking Capacity	1
	Credit 5.1	**Reduced Site Disturbance**, Protect or Restore Open Space	1
	Credit 5.2	**Reduced Site Disturbance**, Development Footprint	1
	Credit 6.1	**Stormwater Management**, Rate and Quantity	1
	Credit 6.2	**Stormwater Management**, Treatment	1
	Credit 7.1	**Heat Island Effect**, Non-Roof	1
	Credit 7.2	**Heat Island Effect**, Roof	1
	Credit 8	**Light Pollution Reduction**	1

Water Efficiency

5 Possible Points

	Credit 1.1	**Water Efficient Landscaping**, Reduce by 50%	1
	Credit 1.2	**Water Efficient Landscaping**, No Potable Use or No Irrigation	1
	Credit 2	**Innovative Wastewater Technologies**	1
	Credit 3.1	**Water Use Reduction**, 20% Reduction	1
	Credit 3.2	**Water Use Reduction**, 30% Reduction	1

Energy & Atmosphere

17 Possible Points

Y	Prereq 1	**Fundamental Building Systems Commissioning**	Required
Y	Prereq 2	**Minimum Energy Performance**	Required
Y	Prereq 3	**CFC Reduction in HVAC&R Equipment**	Required
	Credit 1	**Optimize Energy Performance**	1–10
	Credit 2.1	**Renewable Energy**, 5%	1
	Credit 2.2	**Renewable Energy**, 10%	1
	Credit 2.3	**Renewable Energy**, 20%	1
	Credit 3	**Additional Commissioning**	1
	Credit 4	**Ozone Depletion**	1
	Credit 5	**Measurement & Verification**	1
	Credit 6	**Green Power**	1

Materials & Resources

13 Possible Points

Y	Prereq 1	**Storage & Collection of Recyclables**	Required
☐☐☐	Credit 1.1	**Building Reuse**, Maintain 75% of Existing Shell	1
☐☐☐	Credit 1.2	**Building Reuse**, Maintain 100% of Shell	1
☐☐☐	Credit 1.3	**Building Reuse**, Maintain 100% Shell & 50% Non-Shell	1
☐☐☐	Credit 2.1	**Construction Waste Management**, Divert 50%	1
☐☐☐	Credit 2.2	**Construction Waste Management**, Divert 75%	1
☐☐☐	Credit 3.1	**Resource Reuse**, Specify 5%	1
☐☐☐	Credit 3.2	**Resource Reuse**, Specify 10%	1
☐☐☐	Credit 4.1	**Recycled Content**, Specify 5% (p.c. + 1/2 p.i.)	1
☐☐☐	Credit 4.2	**Recycled Content**, Specify 10% (p.c. + 1/2 p.i.)	1
☐☐☐	Credit 5.1	**Local/Regional Materials**, 20% Manufactured Locally	1
☐☐☐	Credit 5.2	**Local/Regional Materials**, of 20% in MRc5.1, 50% Harvested Locally	1
☐☐☐	Credit 6	**Rapidly Renewable Materials**	1
☐☐☐	Credit 7	**Certified Wood**	1

Indoor Environmental Quality

15 Possible Points

Y	Prereq 1	**Minimum IAQ Performance**	Required
Y	Prereq 2	**Environmental Tobacco Smoke** (ETS) **Control**	Required
☐☐☐	Credit 1	**Carbon Dioxide** (CO_2) **Monitoring**	1
☐☐☐	Credit 2	**Ventilation Effectiveness**	1
☐☐☐	Credit 3.1	**Construction IAQ Management Plan**, During Construction	1
☐☐☐	Credit 3.2	**Construction IAQ Management Plan**, Before Occupancy	1
☐☐☐	Credit 4.1	**Low-Emitting Materials**, Adhesives & Sealants	1
☐☐☐	Credit 4.2	**Low-Emitting Materials**, Paints	1
☐☐☐	Credit 4.3	**Low-Emitting Materials**, Carpet	1
☐☐☐	Credit 4.4	**Low-Emitting Materials**, Composite Wood	1
☐☐☐	Credit 5	**Indoor Chemical & Pollutant Source Control**	1
☐☐☐	Credit 6.1	**Controllability of Systems**, Perimeter	1
☐☐☐	Credit 6.2	**Controllability of Systems**, Non-Perimeter	1
☐☐☐	Credit 7.1	**Thermal Comfort**, Comply with ASHRAE 55-1992	1
☐☐☐	Credit 7.2	**Thermal Comfort**, Permanent Monitoring System	1
☐☐☐	Credit 8.1	**Daylight & Views**, Daylight 75% of Spaces	1
☐☐☐	Credit 8.2	**Daylight & Views**, Views for 90% of Spaces	1

Innovation & Design Process

5 Possible Points

☐☐☐	Credit 1.1	**Innovation in Design**	1
☐☐☐	Credit 1.2	**Innovation in Design**	1
☐☐☐	Credit 1.3	**Innovation in Design**	1
☐☐☐	Credit 1.4	**Innovation in Design**	1
☐☐☐	Credit 2	**LEED™ Accredited Professional**	1

Project Totals

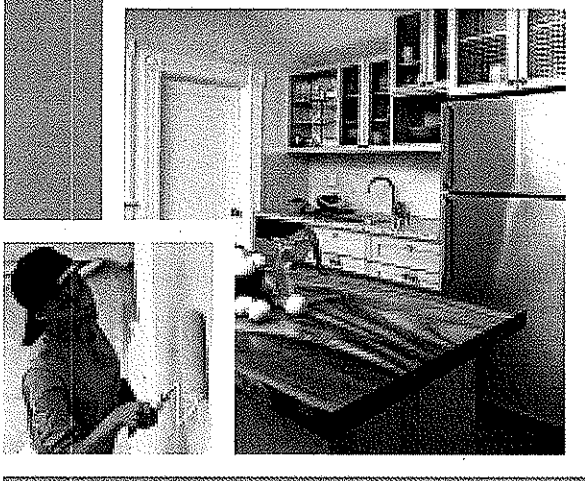
69 Possible Points

☐☐☐ **Certified** 26-32 points **Silver** 33-38 points **Gold** 39-51 points **Platinum** 52-69 points

Build It Green

2007 Edition

HOME REMODELING GREEN BUILDING GUIDELINES



2007 Home Remodeling GreenPoints Checklist

Build It Green
Smart Solutions From the Ground Up

The green building practices listed below are described in the Home Remodeling Green Building Guidelines, available at www.BuildItGreen.com

	Community	Energy	IAQ/ Health	Resources	Water
A. SITE					
1. Protect Existing Soil and Minimize Disruption of Existing Plants & Trees					
a. Protect Existing Topsoil from Erosion and Reuse after Construction	■				■
b. Limit and Delineate Construction Footprint for Maximum Protection					■
2. Deconstruct Instead of Demolish				■	
3. Recycle Construction and Demolition Waste					
a. Recycle or Reuse All Cardboard, Asphalt & Concrete (Required)				■	
b. Recycle 50% of Remaining C&D Waste				■	
B. FOUNDATION					
1. Replace Portland Cement in Concrete with Recycled Flyash or Slag					
a. Minimum 30% Flyash or Slag				■	
b. Minimum 40% Flyash or Slag				■	
2. Retrofit Crawl Space to Control Moisture					
a. Control Ground Moisture with Vapor Barrier			■		
b. Condition the Crawl Space			■		
3. Design & Build Structural Pest Controls					
a. Install Termite Shields and Separate All Exterior Wood-to-Concrete Connections by Metal or Plastic Fasteners/Dividers				■	
b. All New Plants Have Trunk, Base, or Stem Located At Least 36 Inches from Foundation				■	
C. LANDSCAPE					
1. Construct Resource-Efficient Landscapes					
a. No Invasive Species Listed by Cal-IPC Are Planted					■
b. No Plant Species Will Require Shearing				■	
c. 75% of Plants Are Drought-tolerant California Natives, Mediterranean, or Other Appropriate Species					■
2. Use Fire-Safe Landscaping Techniques	■				
3. Minimize Turf Areas					
a. All Turf Will Have a Water Requirement Less than or Equal to Tall Fescue					■
b. Turf Shall Not Be Installed on Slopes Exceeding 10% or in Areas Less than 8 Feet Wide					■
c. Turf is <33% of Landscaped Area					■
d. Turf is <10% of Landscaped Area					■
4. Plant Shade Trees	■	■			
5. Group Plants by Water Needs (Hydrozoning)					■
6. Install High-Efficiency Irrigation Systems					
a. System Uses Only Drip, Bubblers, or Low-flow Sprinklers					■
b. System Has Smart Controllers					■
7.Incorporate Two Inches of Compost into the Top 6 to 12 Inches of Soil					■
8. Mulch All Planting Beds to the Greater of 2 Inches or Local Water Ordinance Requirement					■
9. Use 50% Salvaged or Recycled-Content Materials for 50% of Non-Plant Landscape Elements				■	
10. Reduce Light Pollution by Shielding Fixtures and/or Directing Light Downward	■				
11. Collect and Retain Rainwater for Irrigation					■

The green building practices listed below are described in the Home Remodeling Green Building Guidelines, available at www.BuildItGreen.com	Community	Energy	IAQ/ Health	Resources	Water
D. STRUCTURAL FRAME & BUILDING ENVELOPE					
1. Apply Optimal Value Engineering					
a. Place Rafters and Studs at 24-Inch On Center Framing				■	
b. Size Door and Window Headers for Load				■	
c. Use Only Jack and Cripple Studs Required for Load				■	
2. Use Engineered Lumber					
a. Beams and Headers				■	
b. Insulated Engineered Headers		■			
c. Wood I-Joists or Web Trusses for Floors				■	
d. Wood I-Joists for Roof Rafters				■	
e. Engineered or Finger-Jointed Studs for Vertical Applications				■	
f. Oriented Strand Board for Subfloor				■	
g. Oriented Strand Board Wall and Roof Sheathing				■	
3. Use FSC Certified Wood					
a. Dimensional Lumber and Timbers: Minimum 40%				■	
b. Dimensional Lumber and Timbers: Minimum 70%				■	
c. Panel Products: Minimum 40%				■	
d. Panel Products: Minimum 70%				■	
4. Use Solid Wall Systems (includes SIPs, ICFs, & any Non-Stick Frame Assembly)					
a. Floors		■		■	
b. Walls		■		■	
c. Roofs		■		■	
5. Reduce Pollution Entering the Home from the Garage					
a Tightly Seal the Air Barrier between Garage and Living Area			■		
b. Install Garage Exhaust Fan OR Build a Detached Garage			■		
6. Design Energy Heels on Roof Trusses		■			
7. Install Overhangs and Gutters		■		■	
8. Install Reflective Roof and Radiant Barrier		■			
9. Replace Single-Pane Windows with High Performance Windows (U-factor ≤ 0.40 & SHGC ≤ 0.40)		■			
10. Retrofit with Storm Windows		■			
11. Install Low-SHGC Window Film on Single-Pane Windows		■			
12. Retrofit Structure for Earthquakes				■	
E. EXTERIOR FINISH					
1. Use Recycled-Content (No Virgin Plastic) or FSC-Certified Decking				■	
2. Install Rain Screen Wall System				■	
3. Use Durable and Noncombustible Siding Materials				■	
4. Use Durable and Noncombustible Roofing Materials				■	
F. INSULATION					
1. Install Insulation with 75% Recycled Content					
a. Walls and/or Floors				■	
b. Ceilings				■	
2. Install Insualtion that is Low-Emitting (Certified Section 01350)					
a. Walls and Floors			■		

The green building practices listed below are described in the Home Remodeling Green Building Guidelines, available at www.BuildItGreen.com	Community	Energy	IAQ/ Health	Resources	Water
b. Ceilings					
3. Upgrade Insulation To Exceed Current Title 24 Standards					
a. Attics and Roofs					
b. Walls					
c. Floors					
4. Inspect Quality of Insulation Installation before Applying Drywall					
5. Apply Caulking & Weatherstripping					
G. PLUMBING					
1. Distribute Domestic Hot Water Efficiently					
a. Insulate Hot Water Pipes from Water Heater to Kitchen					
b. Insulate All Hot Water Pipes					
c. Use Engineered Parallel Piping					
d. Use Engineered Parallel Piping with Demand Controlled Circulation Loop					
e. Use Structured Plumbing with Demand Controlled Circulation Loop					
f. Use Central Core Plumbing					
2. Replace Toilets with High-Efficiency Toilets (Dual-Flush or ≤ 1.3 gpf)					
3. Upgrade to High Efficiency Water Heater					
4. Install Water Efficient Fixtures					
a. Showerheads or Shower Towers Use < 2.0 Gallons Per Minute Total					
b. Faucets - Bathrooms <1.5 gpm					
c. Faucets - Kitchen & Utility < 2.0 gpm					
H. HEATING, VENTILATION & AIR CONDITIONING					
1. Design and Install HVAC System to ACCA Recommendations					
2. Install High Efficiency Sealed Combustion Units					
a. Furnaces and Boilers					
b. Heat Pumps					
3. Install Zoned, Hydronic Radiant Heating with Slab Edge Insulation					
4. Install High Efficiency Air Conditioning with Environmentally Responsible Refrigerants					
5. Design and Install Effective Ductwork					
a. Install New Ductwork Within Conditioned Space					
b. Use Duct Mastic on All Ducts and Joints Seams					
c. Install Ductwork under Attic Insulation (Buried Ducts)					
d. Pressure Balance the Ductwork System					
e. Protect Ducts During Remodeling & Clean All Ducts before Occupancy					
f. Insulate Existing Ductwork					
6. Install High Efficiency HVAC Filter (MERV 6+)					
7. Iinstall gas fireplace with efficieny rating not less than 60% using CSA standard					
a. No fireplace					
b. Install gas fireplace with efficiency rating not less that 60% using CSA standard.					
c. Retrofit wood burning fireplaces with EPA-certified wood or pellet stove					
8. Install Effective Exhaust Systems in Bathrooms and Kitchens					
a. Install ENERGY STAR Bathroom Fans Vented to the Outside					
b. All Bathroom Fans are on Timer or Humidistat					

The green building practices listed below are described in the Home Remodeling Green Building Guidelines, available at www.BuildItGreen.com	Community	Energy	IAQ/ Health	Resources	Water
c. Install Kitchen Range Hood Vented to the Outside			■		
9. Install Mechanical Ventilation System for Cooling					
a. Install ENERGY STAR Ceiling Fans & Light Kits in Living Areas & Bedrooms		■			
b. Install Whole House Fan with Variable Speeds		■			
10. Install Mechanical Ventilation for Fresh Air					
a. Install Air-to-Air Heat Exchanger (Heat or Energy Recovery Ventilator)		■	■		
11. Install Carbon Monoxide Alarm(s)			■		
I. RENEWABLE ENERGY					
1. Install Solar Water Heating System		■			
2. Install Photovoltaic (PV) System that offsets electric energy use by:					
a..30% of electric needs OR 1.2 kw		■			
b. 60% of electric needs OR 2.4 kw		■			
c. 90% of electric needs OR 3.6 kw		■			
J. BUILDING PERFORMANCE					
1. Whole House Inspection/Diagnostic Testing & Improvements Made					
a. Duct Testing and Improvements Made so that Leakage is < 15%		■	■		
b. Blower Door Testing and Improvements Made so that Air Change per hour is < 0.35		■	■		
c. House Passes Combustion Safety Backdraft Test			■		
K. FINISHES					
1. Design Entryways to Reduce Tracked in Contaminants			■		
2. Use Low/No-VOC Paint					
a. Low-VOC Interior Wall/Ceiling Paints (Flat <50 g/L VOC; Non-Flat <150 g/L VOC)			■		
b. Zero-VOC: Interior Wall/Ceiling Paints (<5 g/L VOC)			■		
3. Use Low VOC, Water-Based Wood Finishes (<250 g/L VOC)			■		
4. Use Low-VOC Caulks & Construction Adhesives (<70 g/L VOC for All Adhesives)			■		
5. Use Recycled-Content Paint				■	
6. Use Environmentally Preferable Materials for Interior Finish: A) FSC Certified Wood, B) Reclaimed Materials, C) Rapidly Renewable D) Recycled-Content or E) Finger-Jointed					
a. Cabinets (50% Minimum)				■	
b. Interior Trim (50% Minimum)				■	
c. Shelving (50% Minimum)				■	
d. Doors (50% Minimum)				■	
e. Countertops (50% Minimum)				■	
7. Reduce Formaldehyde in Interior Finish (CA Section 01350)					
a. Subfloor (50% Minimum)				■	
b. Cabinets (50% Minimum)				■	
c. Interior Trim (50% Minimum)				■	
d. Shelving(50% Minimum)				■	
8. After Installation of Finishes, Test of Indoor Air Shows Formaldehyde Level <27 ppb			■		
L. FLOORING					

The green building practices listed below are described in the Home Remodeling Green Building Guidelines, available at www.BuildItGreen.com	Community	Energy	IAQ/ Health	Resources	Water
1. Use Environmentally Preferable Flooring: A) FSC-Certified Wood, B) Reclaimed or Refinished, C) Rapidly Renewable, D) Recycled-Content, E) Exposed Concrete. *Flooring Adhesives Must Have <50 g/L VOCs.*					
a. 15% of Floor Area					
b. 30% of Floor Area					
c. 50% of Floor Area					
d. 75% of Floor Area					
2. Use Thermal Mass Flooring					
3. Flooring Meets CA Section 01350 or CRI Green Label Plus Requirements (50% Minimum)					
M. APPLIANCES AND LIGHTING					
1. Install Water and Energy Efficient Dishwasher					
a. ENERGY STAR					
b. Dishwasher Uses No More Than 6.5 Gallons/Cycle					
2. Install Water- and Energy-Efficient Clothes Washing machine					
a. Meets CEE Tier 2 Requirements (Modifieid Energy Factor 2.0, Water Factor 6.0)					
b. Meets CEE Tier 3 Requirements (Modifieid Energy Factor 2.2, Water Factor 4.5)					
3. Install ENERGY STAR Refrigerator					
a. ENERGY STAR Qualified & < 25 Cubic Feet Capacity					
b. ENERGY STAR Qualified & < 20 Cubic Feet Capacity					
4. Install Built-In Recycling & Composting Center					
a. Built-in Recycling Center					
b. Built-In Composting Center					
5. Upgrade to Energy Efficient Lighting					
6 Install Low-Mercury Fluorescent Lighting					
a. Linear Tubes					
b. Compact Fluorescent Lamps					
7 . Install Lighting Controls					
a. Interiors (Dimmers or Occupancy Sensors)					
b. Exteriors (Photocells or Motion Sensors)					
N. OTHER					
1. Incorporate Remodeling Checklist in Blueprints					
2. Develop Homeowner Manual of Green Features/Benefits					
3. Innovation: List innovative measures that meet the green building objectives of the Remodeling Guidelines.					
Innovation in **Community:** Enter description here					
Innovation in **Energy:** Enter description here					
Innovation in **IAQ/Health:** Enter description here					
Innovation in **Resources:** Enter description here					
Innovation in **Water:** Enter description here					