Updated and Unanimously Approved By DeWitt Town Board on December 13, 2010

Town of DeWitt Sustainability Policy

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July 2010

The Sustainability Committee is pleased to present our draft report:
Town of DeWitt Sustainability Policy

The Sustainability Committee first began meeting in January 2009 with a list of goals from the Supervisor, Ed Michalenko. We met with Paul Thompson (NYSERDA) who provided us with an overview of their role and the various grant opportunities available. We drafted a Town Sustainability statement and added Conservation and Education to our list of goals from the Supervisor. In April, we adopted our Town Mission Statement and the Town Board signed the DEC Climate Smart Communities Pledge. We reviewed the DEC guide for Sustainable Communities and began the process of incorporating those examples into a Policy for the Town of DeWitt.

Some efforts began immediately: Department Heads were asked to submit current efforts taken to save energy and resources. The Town has switched to "green cleaning" products and recycled paper. The town vending machines energy consumption was reduced by eliminating internal lights, placing a timer on the refrigerator compressor and removing the microwave. (Reducing energy consumption by approximately 40%.)

During our research it became abundantly clear that there is a wealth of information available, thus, the extensive footnotes to this report. We will continue to focus on education and developing "Green pages" and links on the Town website

We want to thank Chris Carrick (NYSERDA), who has been an invaluable resource and has provided many of the footnotes cited. We also want to acknowledge the efforts of Alan Drucker and staff member Mike Morocco in this endeavor.

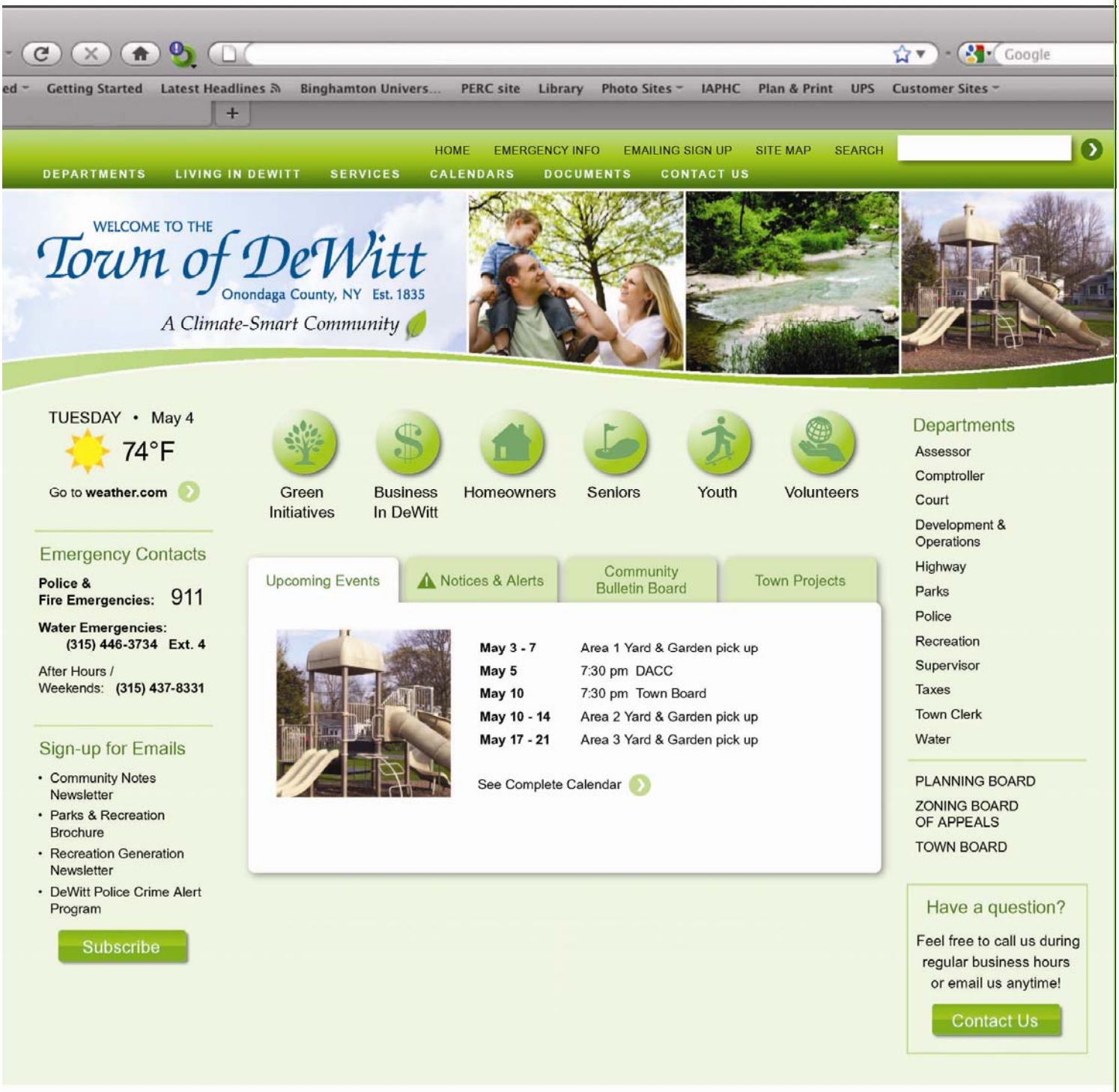
We have joined ICLEI (International Council for Local Environmental Initiatives) to begin the task of benchmarking our efforts and continue our connection with communities across the county.

This report is not an end, but rather a beginning. We will begin the process of seeking comments from the rest of the Town Committees and Commissions to form a template for the future.

We thank the Supervisor for his vision, the Town Board for its support and the Committee members for their hard work and dedication to Sustainability.

On behalf of the Committee, I respectfully submit our report.

Vicki Baker-
Town Board Member,
Chair – Sustainability Committee Town of Dewitt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Town of DeWitt
Onondaga County, NY Est. 1835
A Climate-Smart Community
TUESDAY • May 4
74°F
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Emergency Contacts
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Water Emergencies: (315) 446-3734 Ext. 4
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DeWitt Police Crime Alert Program
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Homeowners
Seniors
Youth
Volunteers
Upcoming Events
Notices & Alerts
Community Bulletin Board
Town Projects
May 3 - 7 Area 1 Yard & Garden pick up
May 5 7:30 pm DACC
May 10 7:30 pm Town Board
May 10 - 14 Area 2 Yard & Garden pick up
May 17 - 21 Area 3 Yard & Garden pick up
See Complete Calendar
Departments
Assessor
Comptroller
Court
Development & Operations
Highway
Parks
Police
Recreation
Supervisor
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Town Clerk
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PLANNING BOARD
ZONING BOARD OF APPEALS
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Have a question?
Feel free to call us during regular business hours or email us anytime!
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Town of DeWitt | 5400 Butternut Drive | East Syracuse, NY 13057-8509
Phone: (315) 446-3910 X 5 | Fax: (315) 449-2065 | Hours: Monday - Friday 8 am - 4.30 pm
Contacts for Other Departments | Directions to Town Hall
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(B)

Supervisors Goals

1. Create a Town Sustainability statement-The Town of DeWitt will provide leadership and pursue practical solutions to improve environmental sustainability in our community while reducing long term costs. The Town will adopt and support programs, policies and actions in pursuit thereof.*

2. Set strategy and a target date for Town buildings to be close to carbon neutral.

3. Propose a change to Town law requiring any new renovation to Town owned buildings or any new construction to Town owned property to be LEED certified.

4. Investigate the use of wind and/or solar power for Town buildings.

5. Explore options for alternative energies to run Town vehicles.

6. Pass a resolution that vendors or service providers to the Town have to achieve certain levels of sustainability. i.e., low VOC cleaning materials, alternatives to pesticides in Highway and Recreation areas.

7. Adopt a “Green Purchasing Policy” including recycled paper.

8. Identify sustainable requirements for commercial building permits within the Town.

9. Formulate sustainable land Use and Transportation policies.

10. Support local vendors rather than out of region.

11. Maximize Conservation.

12. Provide ongoing Education.

*Approved by the DeWitt Town Board

Town of DeWitt Sustainability Policy, Statements and Goals

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Policy Statement 1:
Ensure Energy-Efficient and Environmentally Supportive DeWitt Town Codes, Plans and Policies

Goal: *Review and revise Town codes, plans and policies to support energy efficiency, renewable energy systems and green practices.*

Initiatives:

1. Create an ongoing DeWitt Sustainability Committee ("DSC"), which shall be chaired by a member of the DeWitt Town Board, as appointed by the Supervisor. The DSC shall consist of such members as the chair or Supervisor shall in their discretion so choose. The DSC will assist with increasing awareness, providing feedback on the effectiveness of outreach efforts, assisting with and monitoring the Town's implementation efforts. The DSC would provide recommendations to the Town Board on conditions that affect the environment. The DSC would issue an annual report to the Town Board and community measuring the Town's progress towards sustainability as outlined in this report.

2. Develop incentives for residential and commercial buildings to exceed state building and energy standards for renovations, additions, or new construction. ***(Footnote 1)***

3. Revise building Codes as needed, to ensure that Green Infrastructure, including green roofs, porous pavement, rain barrels, rain gardens, grey water systems, wind turbines, and roof and exterior mounted solar collection systems are allowed. ***(Footnote 2)*** Recommend new residential construction to be solar ready. ***(Footnote 3)*** The Codes should have exceptions for experimental architectural and energy innovations (beyond current codes and established practices) for architects and engineers seeking to advance building performance. Reduce front yard setback requirements.

4. The Town should enact a law that protects the rights of property owners to install, operate and maintain solar energy systems and to promote the use of such systems by requiring solar site orientation for any new residential or commercial development. ***(Footnote 4)***

5. Protect trees in the town by passing a tree ordinance. ***(Footnote 4a)*** Upgrade landscaping requirements for residential, industrial, and commercial developments to ensure that trees are saved, grassy areas are minimized and wood lots and natural areas are maximized. ***(Footnote 5)***

6. Consider, as a future concept, the creation of an internal "Green Team," consisting of the Supervisor, Comptroller, Police Chief, Sustainability Coordinator, and the heads of each of the departments. The Green Team will meet quarterly; individual members will be responsible for the implementation of the plan within their departments and throughout Town government.

Policy Statement 2:
Improve Energy Efficiency and Green Practices of Existing Town Buildings

Goal: *Using a baseline year 2009, reduce the energy use of buildings by ten (10%) percent per year and encourage green practices.*

Initiatives:

1. Contract with NYSERDA ***(Footnote 6)*** or other organization to conduct an energy audit on Town buildings and assist in the funding of energy efficient improvement projects identified through the assessment.
2. Evaluate changes in building operations and housekeeping that would lead to energy conservation and green practices. For example:
    a. Set thermostats to 78 degrees in summer and 68 degrees in winter;
    b. Use environmentally-friendly cleaning materials;
    c. Eliminate the use of lawn pesticides, herbicides, and fertilizers on Town property ***(Footnote 7)***;
    d. Use low VOC paints ***(Footnote 8)***;
    e. Develop a green procurement policy based upon the Climate Smart Communities green purchasing policies. ***(Footnote 9)***
3. Review exterior lighting to reduce the energy consumed and ensure appropriate lighting intensity.
4. Each time an incandescent "Exit" sign is replaced, use an LED sign, which is much more efficient than standard lighting. ***(Footnote 10)***
5. Investigate the use of dual flush toilets, composting toilets, and waterless urinals in Town facilities. ***(Footnote 11)***

Policy Statement 3:
Build Very Efficient, New or Renovated Buildings
(Footnote 12)

Goal: *All future Town buildings of 5,000 square feet or more as well as renovations should meet the Leadership in Energy and Environmental Design's silver certification or comparable standard.* ***(Footnote 13)*** *A waiver may be granted if the project is an "unreasonable burden" (defined as a 10% or greater cost premium based on life-cycle cost assessment methodology) or has a negative impact on a historic structure.* ***(Footnote 14)***

Initiatives:

1. When Town buildings need roof repair or replacement, at a minimum, conduct an analysis to quantify the value of additional means to reduce energy loss (e.g.: increased insulation, green roof and overhangs).

2. Perform an economic analysis on new or renovated Town buildings that compares various traditional heating and cooling systems with alternatives. (Traditional systems include fossil fuel fired furnaces and electric air conditioning. Alternative systems include heat pumps, air, water or geothermal sourced energy and passive solar designs.)

3. Explore the use of solar water heaters, photovoltaic's and wind energy (panels, siding, shingles, glass, etc.), on Town buildings.

Policy Statement 4:
Educate Employees about Sustainable Practices

Goal: *Implement a plan for raising employee awareness and promoting resource efficient behaviors among Town employees.*

Initiatives:

1. Make the Department of Development and Operations responsible for implementing Town environmental and energy policies.
2. Maximize recycling at all Town facilities and at Town sponsored events.
3. Train Town staff in energy efficiency, materials and resource conservation, and waste reduction practices related to their roles.
4. Incorporate resource efficiency standards into the Employee Manual and establish a training protocol for new hires.
5. Implement a coordinated energy-efficiency/environmentally friendly purchasing program that require all equipment and appliances to use less energy than the items being replaced, meets current Energy Star standards.
6. Encourage ride sharing and utilization of alternative modes of transportation.

Policy Statement 5:
Support the Reduction of Energy Use by Homeowners, Developers, and Landlords.

Goal: *Educate the community to encourage energy use reduction.*

Initiatives:

1. Conduct aggressive citizen outreach on ways to reduce home energy use, using the Town's website, mailings, partnerships with schools, retailers, churches and civic organizations by leveraging existing initiatives such as the Alliance for Climate Action's "10% Challenge" ***(Footnote 15)*** or the US EPA's "Change the World, Start with Energy Star" campaign. ***(Footnote 16)***

2. Create a competition to encourage individuals and groups to reduce energy use.

3. Encourage a light bulb exchange program in partnership with the State and/or local retailer(s) to discourage the use of incandescent light bulbs.

4. Partner with governmental agencies and educational institutions to educate commercial property owners, landlords, homebuilders, and home renovation firms on the benefits of energy efficiency, and provide training programs for energy conservation systems on residential and commercial buildings.

5. Investigate using Town resources, State programs, and/or grant funds to develop and implement a financing program for home efficiency projects and for the installation of renewable energy systems and energy conservation systems on residential and commercial buildings. ***(Footnote 17)***

6. Develop a program that encourages landlords to upgrade the energy efficiency of their buildings and appliances.

7. Strongly encourage sellers to provide or permit an energy audit before the sale of a home. This policy does not require homeowners to make energy-efficiency improvements. ***(Footnote 18)***

8. Investigate car sharing, ride sharing and other modes of transportation.

Policy Statement 6:
Reduce Dependence on Traditionally-Powered Vehicles

Goal: *Reduce the amount of gasoline and diesel fuel used by the Town fleet.*

Initiatives:

1. Reduce the use of traditional gasoline and diesel powered Town vehicles by installation of idle-reduction software; implementation of anti-idling policies; reductions in trips; and improved efficiency of existing vehicles. ***(Footnote 19)***
2. Convert to alternative fuel vehicles and equipment that will improve the Town's fleet fuel efficiency.
3. Minimize lawn areas and required mowing on Town property and rights-of-way.

Policy Statement 7:
Reduce Storm Water Runoff and Increase Storm Water Quality.

Goal: *Limit the effects of storm water runoff and nonpoint source pollution on Town waterways and wetlands.*

Initiatives:

1. Encourage residents and businesses to use "rainwater harvesting" techniques. ***(Footnote 20)***

2. Encourage and demonstrate the use of permeable surfaces to reduce storm water runoff. Consider the use of a Town owned parking lot for this demonstration.

3. Encourage businesses and residents to use sustainable drainage techniques such as rain gardens, grassed swales, parking lot filter strips, bio-retention basins, and green roofs to reduce storm water runoff.

4. Develop an urban forestry master plan. ***(Footnote 20a)*** To help prevent street flooding, create a town leaf composting facility using green technology.

5. Provide education and work with homeowners and developers to enhance environmental benefits of trees. Maximizing the benefits requires consideration of tree species selection, tree location relative to homes or other buildings, and tree management procedures, such as pruning. The benefits include:
    a) Flood reduction. Transpiration by trees removes water from the soil, which creates storage space for water that infiltrates in storms. .
    b) Energy saved for heating and cooling buildings by consideration of the solar path in different seasons when planting and managing trees around buildings to optimize the annual solar input to a house ***(Footnote 20b).*** Reductions of energy use for air conditioning result from shading in summer. However, even deciduous trees significantly reduce solar energy in winter, when solar energy reduces energy use for heating.
    c) Energy saved for heating and cooling by reductions in wind speed. Windbreaks of conifers are especially effective for reducing wind speed ***(Footnote 20c)***, but even deciduous trees scattered throughout a neighborhood provide significant reductions in wind speed ***(Footnote 20d)***.
    d) Other environmental benefits such as reduced noise levels though tree effects on sound propagation and improved comfort for people outdoors. Though tree influences on noise are sometimes overestimated, there are possibilities for reducing noise by dense tree plantings ***(Footnote 20e).***

6. Develop a website page to educate residents about the amount of storm water runoff generated by individual parcels, the impact of runoff on local waterways, ways to reduce storm water volume, and landscaping methods that do not rely on environmentally harmful products. Educate property owners on the use and sale of fertilizers and lawn care products containing non-toxic chemicals.

Policy Statement 8:
Encourage Green Economic Development

Goal: *Develop environmentally friendly and energy efficient Town policies to leverage economic development.*

Initiatives:

1. Encourage, for example, redevelopment using green technology and showcase the redeveloped property as a demonstration and educational center for renewable energy, resource conservation, recycled materials, and green building techniques.

2. Identify and encourage businesses that design or manufacture energy efficient or renewable energy equipment, businesses that install or build structures that use such technology, and energy consultants that provide advice and design solutions which would improve the energy use of buildings to locate in Dewitt.

3. Encourage the Buy Local First campaign. ***(Footnote 21)***

4. The Town should foster development of energy efficient businesses by encouraging building energy upgrades on a neighborhood scale, which stimulates demand, provides economies of scale for contractors, and allows retrofit projects to be done more cost effectively. ***(Footnote 22)***

Policy Statement 9:
Include Sustainable Land Use and Transportation Practices in Town Zoning Ordinance & Comprehensive Plan

Goal: *The Town's zoning ordinance and comprehensive plan will encourage sustainable land use and transportation.*

Initiatives:

1. Update zoning and the comprehensive plan based on the principles of Smart Growth ***(Footnote 23)***, New Urbanism ***(Footnote 24)***, Traditional Neighborhood Development (TND) ***(Footnote 25)***, and the livability principles of the Partnership for Sustainable Communities ***(Footnote 26)***.

    a. Use form based codes ***(Footnote 27)*** to promote unique character and architectural style along with environmental and accessibility amenities.

    b. Strengthen and direct development toward existing built-up areas with existing public infrastructure (e.g., roads, water and sewer) with a focus on re-use and re-development of existing buildings.

    c. Encourage compact, walkable, mixed-use neighborhoods with public spaces.

    d. Develop complete streets ***(Footnote 28)*** and a well-connected street network to increase safety and mobility for pedestrians, bicyclists, motorists and transit riders.

    e. Provide a variety of transportation choices, including safe walking, biking and transit.

    f. Encourage Transit-Oriented Development (TOD) ***(Footnote 29)*** and Pedestrian Oriented Development (POD) ***(Footnote 30).***

    g. Preserve open space, farmland and critical environmental areas such as wetlands and floodplains.

    h. Encourage cluster subdivisions ***(Footnote 31)*** rather than conventional subdivisions.

2. Encourage new neighborhood development and redevelopment to meet the standards of LEED for Neighborhood Development (LEED ND) ***(Footnote 32)***.

Policy Statement 10:

Enhance Accessibility of Our Community to People with Disabilities

Goal: *Promote a sustainable community that facilitates aging in place, and promotes full participation for people with disabilities.*

Initiatives:

1) Enhance the safe and easy access of buildings and infrastructure within the Town so that residents can maximize participation in our community and age in place. ***(Footnote 33)***

2) Actively review and enhance the implementation of the Americans with Disabilities Act (ADA) and related legislation so that the Town maintains and promotes continued compliance with building design choices in land use and property development. ***(Footnote 34)***

3) Encourage building professionals, businesses, and residents to use inclusive design elements in property development; thus, working to reduce physical barriers to access for people in wheelchairs as well as those with other mobility impairments. ***(Footnote 35)***

4) Encourage building professionals, businesses, and residents to learn more about available options for building and financing inclusive design housing. ***(Footnote 36)***

Policy Statements Footnotes:

1. New York State's energy building code is based on the International Energy Construction Code (IECC). The IECC is developed and maintained by the International Code Council, a nonprofit organization founded to develop a set of comprehensive and coordinated national model construction codes for both residential and non-residential construction. New York State's residential and commercial provisions are based on the 2001 IECC and are expected to be updated.

2. All new single family homes or duplexes should include in the plans either a solar hot water system or preparation for later installation of a solar hot water system in order to receive a building permit. Builders can "stub out" for solar hot water by either:
    a. installing two insulated pipes and a suitably sized conduit (for two pairs monitoring and control wires) that run from the water heater area through the roof and are capped; OR
    b. installing a sleeve or conduit of sufficient size to hold the two insulated pipes and wires.

    http://www.tucsonaz.gov/dsd/What_s_New/GET_READY_FOR_SOLAR.pdf

    In 1980, Israel was the first country to introduce a solar obligation for new residential buildings

    Spain – March 2006, Technical Building Code requires that in all new buildings 30 – 70% of domestic hot water demand is provided by solar.

    Germany introduced their Renewable Energies Heating Law in January 2009, 14% of residential heating and hot water consumption must be met by renewables.

    Hawaii is bringing in a regulation that all new homes built beginning in 2010, must have solar hot water.

3. A solar-ready home or building is designed as if a solar energy system were going to be installed during construction. Architects and builders take precautions to ensure a viable site for solar technologies by leaving adequate roof space free from vents, chimneys, and equipment; planning landscaping to avoid shading the unobstructed roof space in the future; planning extra space for equipment in mechanical rooms; pre-installing roof mounting systems and conduit; and labeling structural reinforcements and end points of wires or pipes. All new single family homes or duplexes must include in the plans either a photovoltaic ("PV") system or preparation for later installation of a PV system in order to receive a building permit. The additional cost to builders is typically less than $500 per house to comply with the following rules:
    a. Provide a Site Plan showing the best space available for accommodating PV equipment (meter, disconnect & inverter) with minimum area of 4 square feet. Locate the PV equipment adjacent to the electrical service panel if feasible or on a wall close to the proposed collector panel space.
    b. Show on the Site Plan the best roof space available for accommodating PV solar collector panels.
    c. Provide a roof structure designed for the additional collector dead loading (typically 4-8 lbs/SF).
    d. Provide a conduit from the electrical panel to the roof;
    e. Show a minimum 3,800 volt-ampere PV electrical load entry on the Service Load Calculation. This load is continuous as with heating and cooling loads.

f. Show an Electrical Panel Schedule with a 240 volt circuit breaker space labeled “reserved for photovoltaic”.

http://www.ci.tucson.az.us/dsd/What_s_New/PV_Prep.pdf

http://ag.ca.gov/globalwarming/pdf/long_beach.pdf

Sample language, excerpted from the Tucson Code and others and examples.
http://www.solaramericacities.energy.gov/resources/guide_for_local_governments/glossary/

4. **Solar Right**: A law or ordinance that furnishes protection for homes and businesses by limiting or prohibiting restrictions (for example, neighborhood covenants and bylaws, local government ordinances, and building codes) on the installation of solar energy systems.

   http://www.dsireusa.org/solar/solarpolicyguide/?id=19

   http://www.solaramericacities.energy.gov/resources/guide_for_local_governments/print/3/1/

   Solar Access: refers to a building’s ability to receive the benefits of the sun’s rays without obstruction from neighboring buildings, structures, plants, and trees.

   The Town of Dewitt should enact an ordinance to protect the potential for the use of solar energy. The ordinance guarantees access to sunlight for homeowners and renters in the city. This is done by setting limits on the amount of permitted shading by new construction and requiring that new buildings be sited to provide good solar access. The degree of solar access protection is defined by either a 12' or 25' hypothetical "solar fence" on the property lines of the protected buildings. The ordinance is designed to protect access for a four hour period on December 21st. Under most circumstances, new structures will not be allowed to shade adjacent lots to a greater extent than the applicable solar fence.

   By definition, all lots in RR-E, ER-E and LR-E zoning districts are in Solar Access Area I and are protected by a 12 foot "solar fence." All lots in LR-D, MR-E, MR-D, MR-X, HR-E, HR-D, HR-X, I-E, and I-D zoning districts are in Solar Access Area II and are protected by a 25 foot "solar fence." All other zoning districts, including P-E, A-E, CB-E, CB-D, RB-E, RB-D, RB-X, TB-E, and TB-D, are in Solar Access Area III and are protected only through the solar permit process.

   A solar access permit should be available to those who have installed or who plan to install a solar energy system and need more protection than is provided automatically in Solar Access Areas I and II. The permit application must include detailed information describing the solar energy system, existing structures and vegetation on adjacent properties and the location and dimensions of the solar easement requested. Solar access permits do not affect vegetation which exists at the time of permit application submittal.

   http://www.smartcommunities.ncat.org/codes/boldera1_gb.shtml

   http://www.portlandonline.com/shared/cfm/image.cfm?id=72542

   http://www.bouldercolorado.gov/files/PDS/codes/solrshad.pdf

   Solar Site Orientation: refers to situating a building to optimize exposure to the winter sun for passive heating and lighting, while reducing this exposure to the summer sun to minimize overheating.

Subdivisions shall fit and take advantage of topography and solar orientation to the end that good building sites are provided and utilities can be provided most economically. When the Subdivision abuts an area developed with or specified for high or mid-rise buildings (or in the case of a Planned Development District which will be developed with mid or high-rise buildings), the location of open space whenever possible shall be such that it will protect shorter structures from shadows cast by taller buildings

Streets shall be designed so that at least eighty (80%) percent of the building in the subdivision can be oriented with their long axes parallel to nine degrees south of West with a possible variation to six degrees north of West or to twenty-five degrees south of West. Exceptions to the required orientation may be granted when it is shown that strict compliance is infeasible due to: the size, configuration, or orientation of the property, the nature of surrounding development, circulation patterns, improved design, or existing physical features of the site such as topography or vegetation.

All streets shall have a minimum right-of-way of sixty (60) feet with fifty (50) feet width exceptions granted streets with an ultimate length of 600 feet or less, where only single family residential lots abut such streets and where at least eighty (80%) percent or the greatest possible number of buildings on lots abutting such streets can be oriented with their long axes parallel to nine degrees south of West with a possible variation to six degrees north of West or to twenty-five degrees south of West.

The lot design shall provide for lots of adequate width, depth, and shape for solar orientation, to provide open area, to eliminate overcrowding, and to be appropriate for the location of the subdivisions and for the type of development contemplated. Lots and building setback lines shall be designed so that at least eighty (80%) percent of the buildings in the subdivision can be oriented with their long axes parallel to nine degrees south of West with a possible variation to six degrees north of West or to twenty-five degrees south of West. Exceptions to the required orientation may be granted as provided in Section xx hereof.

http://www.smartcommunities.ncat.org/codes/portatx_gb.shtml

4a. The International Society of Arboriculture web site has "Guidelines for Developing and Evaluating Tree Ordinances," a 181-page pdf document that may be accessed free at http://www.isa-arbor.com/education/resources/educ_TreeOrdinanceGuidelines.pdf

5. Typical parking regulations and codes simply require a set amount of parking for a given square footage or number of units, assuming all trips will be by private automobile and ignoring the neighborhood's particular mix of uses, access to transit and walking, and context within the metropolitan region. Such inflexible parking requirements can force businesses to provide unneeded parking that wastes space and money. Under these conditions, parking can take up more than 50 percent of the land used in a development. A surplus of parking can create a "dead zone" of empty parking lots in the middle of what ought to be a bustling commercial district or neighborhood. The space and money devoted to unnecessary parking could be used to accommodate other homes, businesses, shopping, or recreational opportunities in the community that would supply a steady stream of office workers and residents who might patronize businesses in the area. In some cases, rigid parking standards can discourage or even prevent development, because providing it is just too expensive and developers are usually offered no alternative.

6. The New York State Energy Research and Development Authority (NYSERDA) is a public benefit corporation.

7. Pesticides and compounds containing phosphorus are leading pollutants of waterways.

8. Paints with low Volatile Organic Compounds (Low VOC) would help reduce indoor toxins and "sick building syndrome".

9. Green Procurement, also known as environmentally preferable purchasing, is an effort to purchase products and services that have a reduced negative impact or increased positive impact on the environment and human health compared to traditional products.

   Green products or services may be recycled, consume fewer natural resources, last longer or include or produce less toxic substances or solid waste. Considerations for green procurement may also include the environmental cost of raw materials, manufacturing, packaging, transporting, distribution, storing, handling, using, maintaining and disposing of the product. When comparing alternative products, lifetime maintenance costs, operational costs, and disposal costs should be considered as well as initial costs of acquisition.

10. Because exit signs operate 24/7, they can have a substantial electricity usage. LED exit signs consume between one and five watts – a fraction of the energy used by incandescent-based signs – and last about 100,000 hours. The lasting power of LEDs decreases the risk of having exit signs out of service, increasing safety and reducing maintenance requirements. LED exit signs can offer lifetime savings of up to $300 per sign in reduced energy, materials and labor for bulb changes, compared with standard incandescent models.

    http://www.bchydro.com/guides_tips/green_your_business/lighting_guide/Use_LEDs_for_Exit_Signs.html

    http://www.nccommerce.com/NR/rdonlyres/D5D65908-1E92-4950-9363-82780FAB2464/0/LEDExitSigns.pdf

    http://www.energystar.gov/ia/business/small_business/led_exitsigns_techsheet.pdf

11. Conventional urinals use between one to three gallons of water per flush. Thus, replacing conventional urinals with waterless versions yields significant water savings. For example, in a workplace with 100 users, replacing conventional urinals with waterless urinals would result in savings of approximately 156,000 gallons annually, and an estimated $2,100 in water and sewer costs.

    Initial costs for waterless urinals vary depending on the price of the fixtures and the price of installation. In new construction, up-front savings can result from eliminating water supply lines, flush valves, sensors, and in some jurisdictions, drainage hook up charges. Annual costs for servicing waterless urinals vary depending on need, price, and longevity of replaceable cartridge traps, proper usage of liquid sealant, and any specialized cleaning products where recommended. For a workplace with 100 users, these costs range from approximately $120-$470 annually.

    According to the U.S. Army Engineer Research and Development Center, simple payback time typically ranges from ½ to 3 years for new installation and retrofit with waterless urinals.

    Source: Massachusetts Executive Office of Energy and Environmental Affairs. 2008. Waterless Urinals Report and Evaluation. http://www.mass.gov/Eoeea/docs/eea/lbe/lbe_waterless-urinals-rpt.pdf

12. According to the U.S. Green Building Council, buildings in the U.S. represent 65% of total U.S. electricity consumption; 36% of total U.S. primary energy usage; and 30% of greenhouse emissions.

13. The U.S. Green Building Council has developed the LEED (Leadership in Energy and Environmental Design) rating system for green buildings, and certifies buildings that integrate sustainability, energy and water efficiency, renewable resources, and indoor environmental quality. Other standards similar to LEED are also available. When this document specified LEED or U.S. Green Building Council, it should be understood as this standard or comparable. This document does not promote any particular organization/standard, rather the need to adopt a standard.

14. Life Cycle Assessment (LCA) models the interaction between a product and the environment from cradle to grave. There are two main steps in an LCA: (1) Describe which emissions will occur and which raw materials are used during the life of a product. This is usually referred to as the inventory step and (2) Assess what the impacts of these emissions and raw material depletions are. This is referred to as the impact assessment step. http://www.epa.gov/nrmrl/lcaccess/

15. The 10% Challenge is a voluntary program to raise public awareness about global climate change and to encourage households and businesses to reduce their greenhouse gas emissions by at least 10 percent. http://www.10percentchallenge.org/

16. "Change the World, Start with ENERGY STAR" is a national campaign encouraging all Americans to join with millions of others and take small, individual steps that make a big difference in the fight against global warming. http://www.energystar.gov/index.cfm?fuseaction=globalwarming.showPledgeHome

17. Twenty states now allow cities and counties to finance energy efficiency retrofits and on-site renewable energy generation and repay the loan with an annual property tax assessment over 20 years. PACE bonds can be issued by municipal financing districts or finance companies and the proceeds can be typically used to retrofit both commercial and residential properties. Five municipalities launched **Property Assessed Clean Energy (PACE)** programs in the past two years and these programs have spent $37.5 million to help enable close to 2,000 voluntary residential retrofits. The PACE bond market, in combination with federal loan guarantees, has the potential to dramatically accelerate the energy retrofitting of America's building stock due to the below advantages. It is estimated that the potential for PACE bonds could exceed $500 billion. http://rael.berkeley.edu/financing and http://www.pacenow.org/ and http://pacefinancing.org/

18. A more stringent requirement has been instituted by the City of Austin Texas. The Energy Conservation Audit and Disclosure (ECAD) Ordinance for Single-Family Homes

    The Energy Conservation Audit and Disclosure (ECAD) ordinance requires that before the sale of their home, owners of a single-family home must have an energy audit performed on the property. To see if your home needs an energy audit, answer the questions in our online tool, the ECAD Audit Self Check.

    If a home needs an audit, the seller must provide a copy of the audit to the purchaser or prospective purchaser. The auditor must provide a copy of the audit to Austin Energy.

    Note: Austin Energy has conducted training sessions with many Austin area real estate brokers and agents. These real estate professionals can provide sellers with valuable additional guidance and information about the disclosure requirement and its operation.

    Exemptions
    Homes meeting any one of the following conditions do not need an audit. The home:

- Is less than 10 years old at the time of sale
- Has received at least three energy-efficiency improvements or a total of $500 in rebates through the Austin Energy Home Performance with ENERGY STAR® program within 10 years before the sale. These improvements include: increasing attic insulation to R38; installing solar screens, solar film, or low-E windows; adding radiant barriers in the attic; replacing or insulating ducts; reducing air infiltration and sealing ducts; and installing new qualifying HVAC systems.
- Has received energy-efficiency improvements through the Austin Energy Free Home Improvements program within 10 years before the sale.
  (Austin Energy offers free home-energy improvements only to customers with low-to-moderate incomes.)
- Is a condominium
- Is manufactured housing (a mobile home) built on a permanent chassis and designed for use without a permanent foundation.
- Changes ownership and the transfer of the title occurs under one of the following:
  - Foreclosure sale, trustee's sale, or deed in lieu of foreclosure
  - Pre-foreclosure sale, in which the seller reached an agreement with the mortgage holder to sell the property for an amount less than the amount owed on the mortgage
  - Threat or exercise of eminent domain
  - Gift from one family member to another family member without consideration
  - Court order or probate proceedings
  - Decree of legal separation or dissolution of marriage or property settlement agreement incidental to such a decree

Definition of a Single-Family Home
The ECAD ordinance defines a single-family home as a building comprising fewer than five dwelling units. (If your building has five or more dwelling units, see ECAD Ordinance for Multifamily Properties.)

Variances

A home may receive a variance if it meets one of the following conditions:

- No later than six months after the sale, the buyer applies for a permit to demolish the home. The seller and buyer must enter into a binding agreement in which the buyer agrees to apply for a permit to demolish the home no later than six months after the sale. View the Variance Application for Residence Demolition.
- No later than six months after the sale, the buyer applies for a permit to substantially remodel the home. The seller and buyer must enter into a binding agreement in which the buyer agrees to file an application for a building permit to substantially remodel the above-referenced property no later than six months after the sale and in which the buyer agrees to complete an energy audit within a specified time after the remodel is complete. View the Variance Application for Residence Substantial Remodel.
- The buyer qualifies for and agrees to participate in the Austin Energy Free Weatherization Program or an equivalent Austin Energy program, no later than six months after the sale. View the Agreement to Participate in the Austin Energy Free Weatherization Program.

To apply for a variance, email either the Variance Application for Residence Demolition form or the Variance Application for Residence Substantial Remodel form, or print out the appropriate one and send it to:

Director of Energy Efficiency Services
Austin Energy
811 Barton Springs Road, 3rd Floor
Austin, TX 78704

Energy Efficiency Records
Austin Energy will provide homeowners or prospective buyers with information on the energy-efficiency improvements received by a home through Austin Energy programs. This information includes dates of energy-efficiency improvements or rebates, and dates and details of free energy-efficiency improvements. Call ***or email Austin Energy with the address of the home and your telephone number.

ECAD Exemption List
Austin Energy also makes available to homeowners a useful ECAD Exemption List.

Single-Family Home Audit
If the home is not exempt or does not qualify for a variance, it needs an ECAD audit.

ECAD Auditors
The ECAD audit must be performed by an auditor who is a certified Residential Energy Services Network (**RESNET**) Rater or a Building Performance Institute (**BPI**) Building Analyst Professional. **See a list of certified ECAD auditors who have registered with Austin Energy**.

What the Auditor Does
An ECAD audit takes about one hour per thousand square feet of property. The ECAD auditor:

- Inspects and measures the attic insulation in multiple areas
- Pressure tests the duct system and assesses its condition and adequacy
- Examines heating and cooling equipment
- Inspects weather stripping around exterior doors, plumbing penetrations beneath sinks, and air tightness of attic entries
- Identifies and measures the amount of glass in windows that receive more than one hour of direct sunlight each day

Audit Costs
ECAD audits are comprehensive and require specialized equipment for testing the duct system. The estimated cost of an audit is from $200 to $300 for a typical single-family home, 1,800 square feet or smaller, with one air-conditioning system. Auditors set their own prices.

Audit Results
After the audit, the auditor provides the homeowner with the audit report. It includes:

- Condition and estimated R-value of the attic insulation
- Percentage of air leakage from the duct system and the system's general condition
- Age, efficiency, and overall condition of the heating and cooling equipment
- Air leakage around exterior doors, plumbing penetrations beneath sinks, and attic entries
- Total square feet of glass and location of windows receiving more than one hour of direct sunlight each day
- Opportunities for improving the energy-efficiency of the home

Within 30 days, the auditor sends the audit to Austin Energy, and we enter the information into a database. Austin Energy also runs spot checks of ECAD audits to ensure the quality of the program.

Energy-Efficiency Improvements
The ECAD ordinance does not require homeowners to make energy-efficiency improvements. However,

Austin Energy offers **rebates and low-cost loans to homeowners** who want to improve their home's energy efficiency.

Enforcement
Non-compliance with the ECAD ordinance is a Class C Misdemeanor. Reported violations will be forwarded to the City of Austin Legal Department for review and action.

http://www.austinenergy.com/About%20Us/Environmental%20Initiatives/ordinance/single-family.htm

http://www.ericsfhomes.com/3821_25th/reports/19Disclosure_Regarding_Energy_and_Water_Conservation.pdf

19. According to the US Department of Transportation, a single car or light truck idling 1 hour/day for 5 days/week waste at least $ 700.00 in fuel per year.

20. Rainwater harvesting systems use rain barrels and other technology to collect and recycle rain water for flushing toilets and watering lawns. These systems can reduce up to 50% of water usage in a home and up to 80% in commercial/industrial installations, as well as decrease storm water run-off that can lead to flooding, erosion and pollution of waterways.

20a. An example of a local master plan is from Syracuse. Nowak, D. J. and P. R. O'Connor, 2001: Syracuse Urban Forest Master Plan: Guiding the City's Forest Resource into the 21st Century. Gen. Tech. Rep. NE-287, 50 pp. (Available at http://www.nrs.fs.fed.us/pubs/5932)

20b. Many references describe tree management for saving energy use for space conditioning of buildings. The principles of tree placement to optimize shading on a house throughout a year have been known for many years. For example:

Environmental Protection Agency, 2009: Reducing Urban Heat Islands: Compendium of Strategies, Trees and Vegetation. [Available online from http://www.epa.gov/hiri/resources/compendium.htm.]

Heisler, G. M., 1986: Effects of individual trees on the solar radiation climate of small buildings. *Urban Ecology*, **9,** 337-359. http://www.nrs.fs.fed.us/pubs/jrnl/1986/nrs_1986_heisler_001.pdf

Heisler, G. M., 1986: Energy savings with trees. *Journal of Arboriculture*, **12,** 113-125. http://www.nrs.fs.fed.us/pubs/jrnl/1986/nrs_1986_heisler_002.pdf

__, 1990: Tree plantings that save energy. *Fourth Urban Forestry Conference*, St. Louis, MO, American Forestry Association, 58-62.

Heisler, G. M. and J. R. Simpson, 2001: Saving with shade. *Smart HomeOwner*. http://www.nrs.fs.fed.us/pubs/jrnl/2001/nrs_2001_heisler_001.pdf

20c. Trees reduce wind speed, especially in windbreak rows.

Heisler, G. M., 1984: Planting design for wind control. *Energy-Conserving Site Design*, E. G. McPherson, Ed., Amer. Soc. of Landscape Architects, 165-183. _, 1991: Computer simulation for optimizing windbreak placement to save energy for heating and cooling Buildings. *The Third International Windbreaks and Agroforestry Symposium Proc.*, Ridgetown, Ontario, Canada, Ridgetown College, 100-104. http://www.nrs.fs.fed.us/pubs/jrnl/1991/nrs_1991_heisler_001.pdf

20d. Even deciduous trees scattered throughout a neighborhood save energy by reducing wind speed.

Heisler, G. M., 1990a: Mean wind speed below building height in residential neighborhoods with different tree densities. *American Society of Heating, Refrigerating, and Air Conditioning Engineers Transactions*, **96,** 1389-1396.

20e. References include:

Bucur, V., 2006: *Urban Forest Acoustics*. Springer, 181 pp.

Heisler, G. M., O. H. McDaniel, K. K. Hodgdon, J. J. Portelli, and S. B. Gleason, 1987: Highway noise abatement in two forests. *Noise-Con 87*, State College, PA, The Pennsylvania State University, 465-470.

21. Buy Local: This is from http://www.sustainabletable.org/issues/eatlocal/

What exactly is local food?

Talk of local food is everywhere. But what does it mean? How local is local? Local is shorthand for an idea that doesn't have a firm definition. Unlike organic standards, which entail specific legal definitions, inspection processes, and labels, local means different things to different people, depending on where they live, how long their growing season is, and what products they are looking for.

Practically speaking, local food production can be thought of in concentric circles that start with growing food at home. The next ring out might be food grown in our immediate community - then state, region, and country. For some parts of the year or for some products that thrive in the local climate, it may be possible to buy closer to home. At other times, or for less common products, an expanded reach may be required.

People who value local as their primary food criterion are sometimes referred to as locavores. The term "locavore" was coined by Jessica Prentice from the San Francisco Bay Area for World Environment Day 2005 to describe and promote the practice of eating a diet consisting of food harvested from within an area most commonly bound by a 100 mile radius. With such excitement and momentum building in the local food movement, the New Oxford American Dictionary chose locavore as its word of the year in 2007.

One easy way to start buying local is to choose one product to focus on. Vegetables are often a good place to start. Produce also offers a good introduction to eating seasonally—an excellent way to learn about local agriculture. Then, try seeking out sources for local meat or dairy. Check out the Shop Sustainable section for more on how to make buying local fun and easy. Search the Eat Well guide to start shopping. With a pantry and fridge full of beautiful, local foods, you may want to start experimenting in the kitchen. For recipes, cookbook reviews, tips, and other culinary tidbits, visit Sustainable Kitchen.

While local is certainly a flexible term, the basic concept is simple: local foods are produced as close to home as possible. Buying local supports a more sustainable food system because true sustainability goes beyond the methods used in food production to include every step that brings food from farm to plate.

Local vs. sustainable

Sustainable agriculture involves food production methods that are healthy, do not harm the environment, respect workers, are humane to animals, provide fair wages to farmers, and support farming communities. Sustainability includes buying food as locally as possible. Buying local food does not guarantee that it is sustainably produced. Pesticides, chemical fertilizers, factory farming, hormone use, and non-therapeutic use of antibiotics can all be involved in local food production, so it's important to make sure that the local food you buy is from farmers or gardeners using sustainable methods.

When considering the sustainability of a product there are a lot of questions to ask, so if a store or producer is advertising that their food was raised locally, take the time to ask a few questions like: "Do you know how these animals were raised?" or "Do you know the name and location of the farm where this product was grown?"

Local vs. global

At its roots sustainable farming benefits the local community and local economy while supporting the

environment by enriching the soil, protecting air and water quality, and minimizing energy consumption. Industrial food production is entirely dependent on fossil fuels, which, when refined and burned, create greenhouse gases that are significant contributors to climate change. The biggest part of fossil fuel use in industrial farming is not transporting food or fueling machinery; it's chemicals. As much as forty percent of the energy used in the food system goes towards the production of chemical fertilizers and pesticides.[1]

By adding transportation, processing and packaging to the food system equation, the fossil fuel and energy use of our current food system puts tremendous stress on the environment. For example, between production and transportation, growing 10% more produce for local consumption in Iowa would result in an annual savings ranging from 280,000 to 346,000 gallons of fuel, and an annual reduction in CO2 emissions ranging from 6.7 to 7.9 million pounds.[2]

Food processors also use a large amount of paper and plastic packaging to keep fresh food from spoiling as it is transported and stored for long periods of time. This packaging is difficult or impossible to reuse or recycle. In addition, industrial farms are a major source of air and water pollution.

Small, local farms are run by farmers who live on their land and work hard to preserve it. They protect open spaces by keeping land in agricultural use and preserve natural habitats by maintaining forest and wetlands. By being good stewards of the land, seeking out local markets, minimizing packaging, and harvesting food only when it is ready to consume, farmers can significantly reduce their environmental impact. In fact, studies show that sustainable agricultural practices can actually increase food production by up to 79% while at the same time actively reducing the effects of farming on climate change through carbon sequestration.[3]

22. The forthcoming Green Jobs/Green NY Program will utilize a network of constituency-based organizations (CBOs) that will seek to group at least 5 building owners within the same neighborhood (an area that can easily be traveled by the contractor within 15 minutes) who have all agreed in principle to be served by the same contractor (or contractor team). The Town should seek ways to assist the CBO selected by NYSERDA to organize outreach activities in Central New York.

23. The Smart Growth Network provides 10 principles that comprise Smart Growth:
    1. Create range of housing opportunities and choices
    2. Create walkable neighborhoods
    3. Encourage community and stakeholder collaboration
    4. Foster distinctive, attractive communities with a strong sense of place
    5. Make development decisions predictable, fair and cost effective
    6. Mix land uses
    7. Preserve open space, farmland, natural beauty and critical environmental areas
    8. Provide a variety of transportation choices
    9. Strengthen and direct development towards existing communities
    10. Take advantage of compact building design

    For more information on Smart Growth, visit the Smart Growth Network at www.smartgrowth.org or Smart Growth America at www.smartgrowthamerica.org. For more information on Smart Growth in New York State, visit www.smartgrowthny.org.

24. New Urbanism is a planning movement that, according to the Congress for the New Urbanism (CNU), recognizes walkable, human-scaled neighborhoods as the building blocks of sustainable communities and regions. For more information on New Urbanism, visit CNU at www.cnu.org.

25. The Onondaga County Settlement Plan states that TND refers to villages, towns and cities that are made up of traditional neighborhoods, with mixed use centers, a network of through streets and public spaces. For more information on the Onondaga County Settlement Plan, visit www.ongov.net/planning/plan_settlement.html.

26. The Partnership for Sustainable Communities is a joint project of the Environmental Protection Agency (EPA), the Department of Transportation (DOT) and Housing and Urban Development (HUD). The partnership's six livability principles are:
    1. Provide more transportation choices
    2. Promote equitable, affordable housing
    3. Enhance economic competitiveness
    4. Support existing communities
    5. Coordinate policies and leverage investment
    6. Value communities and neighborhoods

    http://www.environmentalleader.com/2009/06/16/epa-hud-dot-form-partnership-for-sustainable-communities/

27. According to the Form-Based Codes Institute (FBCI), form-based codes foster predictable built results and a high quality public realm by using physical form (rather than separation of uses) as the organizing principle for the code. Form-based codes are drafted to achieve a community vision. The regulations and standards in form-based codes, presented in both diagrams and words, are keyed to a regulating plan that designates the appropriate form and scale (and therefore, character) of a development rather than only distinctions in land-use types. Form-based codes are an alternative to conventional zoning. For more information on form-based codes, visit the FBCI at www.formbasedcodes.org.

28. The National Complete Streets Coalition states that complete streets are **designed and operated to enable safe access for all users.** Pedestrians, bicyclists, motorists and transit riders of all ages and abilities must be able to safely move along and across a complete street. For more information, visit the National Complete Streets Coalition at www.completestreets.org.

29. The Center for Transit-Oriented Development states that transit-oriented development (TOD) is higher-density mixed-use development within walking distance – or a half mile – of transit stations. Projects should also:
    - Increase "location efficiency" so people can walk and bike and take transit
    - Boost transit ridership and minimize traffic
    - Provide a rich mix of housing, shopping and transportation choices
    - Generate revenue for the public and private sectors and provide value for both new and existing residents
    - Create a sense of place

    For more information, visit the Center for Transit-Oriented Development at: www.reconnectingamerica.org/public/tod.

30. POD requires factors such as higher density development, diversity of land uses in close proximity to each other, shorter blocks, and public spaces. See: http://pcj.typepad.com/planning_commissioners_jo/2010/03/ewing.html.
    Check the Walk Score of various locations at: http://www.walkscore.com/.

31. A cluster subdivision is one in which the allowable number of lots and associated infrastructure are placed close together in order to preserve open space. In conventional subdivisions, parcels are usually divided into lots reflecting the minimum size allowed by zoning. Clustering allows for flexibility of design and

development by relaxing requirements such as minimum lot sizes and setbacks in exchange for permanent preservation of open land. For more information on cluster subdivisions, reference New York State Town Law § 278 at http://public.leginfo.state.ny.us/menugetf.cgi.

32. LEED ND integrates the principles of smart growth, urbanism and green building into the first national system for neighborhood design and verifies that a development's location and design meet accepted high levels of environmentally responsible, sustainable development. For more information, visit the U.S. Green Building Council at http://www.usgbc.org/DisplayPage.aspx?CMSPageID=148.

33. Malloy, Robin Paul, *Inclusion by Design: Accessible Housing and Mobility Impairment*, 60 HASTINGS L.J. 699 (2009). Malloy is the E.I. White Chair and Distinguished Professor of Law at the Syracuse University College of Law and an expert in real estate law and development. The article provides a detailed analysis of the problems of making communities livable so that people can age in place and so that they can easily and safely participate in the life of the community without unnecessary barriers to mobility. Need for inclusive design structures increases as the population ages as a result of the decreased mobility of older people. Difficulty navigating the built environment effects millions of Americans every day by people using wheelchairs, walkers, crutches, and canes, and by people with mobility impairment resulting from conditions of old age, illness, arthritis, cerebral palsy, muscular dystrophy, injury, and surgery (such as hip or knee replacements). Obesity as related to diabetes also increases the rate of mobility impairment in the population. Many people with mobility impairment do not use wheelchairs.

    Approximately twenty-one million families have at least one member with a disability, and of these, twelve million families, or nearly 17% of all families, have at least one member with a physical disability (*See* QI WANG, U.S. DEP'T OF COM., REPORT NO. CENSR-23, DISABILITY AND AMERICAN FAMILIES:2000, AT 4 (2005), *available at* http://www.census.gov/prod/2005pubs/censr-23.pdf); Malloy at page 703. Approximately eight and one-half to nine million people in the United States, living outside of institutions, use assistive devices and technologies for mobility impairment. This does not include seniors living in nursing homes, as nursing homes count as institutions. There are approximately 1.6 million Americans that use wheelchairs, outside of those residing in institutions. Wheelchair use varies by age; with use being about 88,000 people under age eighteen (or 0.1% of the population), 600,000 working age people (or 0.4% of the population), and 900,000 people age sixty-five or older (or 2.9% of the population). *See* H. STEPHEN KAYE ET AL., U.S. DEP'T OF EDUC., DISABILITY STATISTICS CTR., REPORT NO. 14, MOBILITY DEVICE IN THE UNITED STATES 3, 5, 7 (2000), *available at* http://dsc.ucsf.edu/pub_listing.php; H. STEPHEN KAYE ET AL., U.S. DEP'T OF EDUC., DISABILITY STATISTICS CTR., ABSTRACT NO. 23, WHEELCHAIR USE IN THE UNITED STATES I (2002) [hereinafter KAYE ET AL., WHEELCHAIR USE], *available at* http://dsc.ucsf.edu/pub_listing.php; JORDANA L. MAISEL, CTR. FOR INCLUSIVE DESIGN & ENVTL. ACCESS (IDEA), VISITABILITY AS AN APPROACH TO INCLUSIVE HOUSING DESIGN AND COMMUNITY DEVELOPMENT: A LOOK AT ITS EMERGENCE, GROWTH, AND CHALLENGES 5 (2005); CDC – Nat'l Ctr. For Health Statistics Homepage, http://www.cdc.gov/nchs/; Joni and Friends, Disability Information and Statistics, http://www.joniandfriends.org/static/topic_files/Building_Accessibility_-_BUILDRL_.pdf.

    The implications of this are that we have close to 20% of American families dealing with issues related to mobility impairment. Even if their own homes are made accessible they frequently find that they have difficulty visiting the homes of family members and friends, and that they are cut off from access to the many places where the social, political, and economic life of a community take place.

34. Title II of Americans with Disabilities Act of 1990, Pub. L. No. 101-336, 104 Stat. 327, 337-53 (codified as amended at 42U.S.C. §§ 12131-12161) (Title II prohibits discrimination based on disability in programs, services, and activities provided or made available by public entities. The Dep't of Housing and Urban Dev't

(HUD) enforces Title II for state and local public housing, housing assistance and housing referrals. Title II sets standards of accessibility for public facilities and programs, not for private residential housing).

Title III of Americans with Disabilities Act of 1990, Pub. L. No. 101-336, 104 Stat. 327, 353-365 (codified as amended at 42 U.S.C. §§ 12181-12189) (Title III prohibits discrimination based on disability in the provision of goods, services, facilities, privileges, advantages, or accommodations of any place of public accommodation by any person owning, leasing or operating a place of public accommodation. Title III defines public accommodation and provides a list of examples, including hotels, restaurants, auditoriums, museums, and certain commercial facilities. It does not include single-family residential housing as a place of public accommodation.

The Architectural Barriers Act of 1968 (Pub. L. No 90-480, 86 Stat. 718.

Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. §794 (2006).

Executive Order 13217, 3 C.F.R. 774 (2002).

Fair Housing Act Amendments of 1988 (42 U.S.C. §3601 (2006).

35. There are different approaches to inclusive design with the two most important concepts being universal design, and visitability. *Universal design* standards are generally quite pervasive and applied throughout an entire structure. One way to quickly grasp the basic idea of universal design is that everything within a structure is designed to be readily accessible to a person in a wheelchair. See Malloy at pp. 710-14.
The *visitability standard* is much less pervasive than universal design. The general idea behind this standard, as applied to residential housing, is one of making it possible for every home and building to be easily and safely visited by anyone in the community. In order for this to readily happen the house would have to meet some minimal inclusive design standards. *See* Malloy at pp. 710-14.

The idea is that there are various approaches to inclusive design and options in favor of inclusive design should be considered in the effort to enhance sustainability for a community.

Examples of communities with laws and programs in support of visitability include: Pima County Arizona; Atlanta, Georgia; Austin and San Antonio, Texas; St. Petersburg, Florida; Naperville, Illinois; and the State of Vermont. *See* Malloy at pp.728-730.

In 2003, the directors of the National Association of Home Builders passed a policy resolution in favor of voluntary visitability programs. *See NAHB Supports Voluntary 'Visitability,'* NATION'S BUILDING NEWS ONLINE, May 26, 2003, *available at* http://www.nbnnews.com/NBN/issues/2003-05-26/Seniors+Housing/2.html. The State of Georgia used these guidelines to create a voluntary program called "Easy Living" (What is the EasyLiving Home, http://www.easylivinghome.org/elh.htm.

36. Cost estimates of building residential home to a visitability standard range from $0 to 1,500, with estimates from the State of Georgia Easy Living program (see note 3 above) ranging from $300-$600 dollars for a home. *See* Malloy at pp. 714-716. Costs will vary by geographic location. The cost for making new construction visitable is marginal. It is cheaper to build accessible designs than to rehabilitate exclusionary deigns at a later date. As a counter point to the minor costs of making buildings accessible, inclusive design features reduce safety risk from falling and other injuries such that there may be additional cost savings in other ways from using more inclusive designs. One study in the United Kingdom estimates a savings of £5.5 billion (around $7 billion in U.S. dollars) from inclusive design by virtue of the savings from permitting people to age in place

and not having to be prematurely moved to high cost senior housing and nursing home facilities. *See* Welcome to Lifetime Homes, http://www.lifetimehomes.org.uk/ .

As to financing, information should be developed and made available to residents with respect to the ways one might finance the cost of private actions to build or rehabilitate a structure to make it easily and safely accessible. This includes identification of government funding and incentive programs as well as looking to private market financing tools such as the use of a reverse annuity mortgage (also known as a Home Equity Conversion Mortgage). For information on the reverse annuity mortgage *see* ROBIN PAUL MALLOY AND JAMES CHARLES SMITH, REAL ESTATE 149-158 (2010); ROBIN PAUL MALLOY AND JAMES CHARLES SMITH, REAL ESTATE TRANSACTIONS 397-98 (2007). Basically, the reverse annuity mortgage facilitates an older individual in allowing them to access the equity in their home while retaining ownership. The equity, generally paid in the form of an annuity, can assist in financing the costs of adjusting home design as a person ages.

List of Resumes

Hon. Vicki Baker, Chair is a current DeWitt Town Board member and former Onondaga County Legislator. She chairs the Sustainability, Facilities & Personnel and Seniors and Disability Committees. She is a former member of the Town of DeWitt Advisory Conservation Commission and current town liaison to the committee. She is also a member of the DeWitt Police Commission.
Vicki is a former Coronary Care R.N. and has a long standing history of community and environmental activism. Past president of the Jamesville Positive Action Committee, she has been active in Jamesville's planning and zoning issues.

Laura Bradford is Associate Director, Corporate Environment, Health, Safety and Sustainability for Bristol-Myers Squibb. She is responsible for sustainability strategies and outreach at the corporate level. Current responsibilities include developing and integrating corporate sustainability policies, goals and progress for the business worldwide, and supporting transparency with external reporting on progress. She is a primary liaison with the socially responsible investment community, represents the company in the Health Care Working Group of Business for Social Responsibility, and has served as an external speaker on sustainability matters on behalf of the company. Prior to 2000, Laura served as lead auditor for environment, health & safety compliance worldwide, headed up Safety for the Mead Johnson Division, and served as Facilities Manager and Senior Project Engineer. Previously, Laura was a Corporate Engineer and Environmental Engineer at PepsiCo.

Laura's education includes an M.B.A. in Finance and International Business from New York University, and a Bachelor of Science degree in Environmental and Civil Engineering from Brown University. Laura is a Certified Safety Professional and Certified Professional Environmental Auditor.

Dr. Chris Carrick is the Energy Program Manager for the Central New York Regional Planning and Development Board, a public agency that was established in 1966 by Cayuga, Cortland, Madison, Onondaga, and Oswego Counties. The CNY RPDB provides a range of services associated with the growth and development of communities in Central New York, including Comprehensive Planning, Economic Development, Environmental Management, and Energy Management.

Chris directs the Energy Management Program, which promotes the use of energy conservation measures and clean energy development in Central New York. In addition to serving as a regional information exchange and planning resource center, the CNY RPDB is actively engaged in the development of alternative energy projects throughout the region, including a community wind farm, biomass energy facilities, and major energy efficiency retrofit projects for several large public and non-profit institutions.

Chris also coordinates two programs for NYSERDA, the New York State Energy Research and Development Authority. As the Central New York Energy $mart Communities Coordinator, Chris is responsible for public education and project development for residential, commercial, and R&D programs offered by NYSERDA. As the Regional Coordinator for the Focus on Local Government program, Chris assists municipalities across 20 counties to develop clean energy projects and reduce greenhouse gas emissions.

Chris received his Master's degree in Community Development from the University of California-Davis and completed his doctoral studies in City and Regional Planning at Cornell University. He has over fifteen years of experience in energy project management, economic development and environmental planning and has worked in British Columbia, California, Maine and New York.

Eileen M. Clinton is Vice President of Risk Management Services, Brown & Brown Empire State located in Syracuse, NY. She Graduated from Assumption College, Worcester, Mass. with a B.S. in Political Science (Cum Laude). She holds a Masters degree from SUNY, with a Thesis in Environmental Risk Management.

She has given various presentations on LEED Sustainability practices for building projects and is a Certified Environmental Advisor (CEA) and Registered Environmental Property Assessor (REPA).

Alan Drucker is a retired engineer from United Technologies Corporation, Carrier Corp., located in Syracuse, N.Y. He has a B.S. degree in mechanical engineering from Cornell University, and Post Graduate (24 credits in mechanical engineering) from the University of Rochester and Syracuse University.

He has received additional job-related training in Solar Heating and Cooling (George Washington University). He is the holder of 19 U.S. patents in heating and cooling products and listed in the publications: *Who's Who in America*, *Who's Who in Science* and *Engineering*, and *Who's Who in Industry.*

Ilana Kanfer has been a Planner with the Syracuse-Onondaga County Planning Agency since 2003. She is involved with several sustainable planning projects including development of the County's Sustainable Development Plan, organization of municipal training through the Onondaga County Planning Federation, coordination with the Onondaga County Planning Board, and work on various environmental issues.

Ilana also has previous experience in the fields of wildlife biology and environmental education. She has participated in avian research projects in Massachusetts, New York and Colorado.

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