



### **Commitment to Ecologic Principles**

Bailey and Harris Architects has been dedicated to a comprehensive approach to environmental design, including a site, water use, materials and resources, energy efficiency and indoor air quality. Collectively, our group has experience in the design and construction of several projects that utilize sound environmental strategies.

Consideration of the site involves preserving open space, light pollution reduction, storm water design, as well as restoring and protecting habitat. This means a reduced building footprint and low impact development/renovation to the site when possible as well as taking advantage of onsite advantages such as solar orientation, wind, water and other microclimatic factors. Site rehabilitation might be a combination of preserving open spaces and habitat while restoring the ecology of the site.

**Water conservation** is in the forefront of global concern. The Western New York region is fortunate in its proximity to the Great Lakes, one of the largest freshwater bodies in the world. This region has special significance as that last surviving remnant of the Buffalo River Delta, in addition to an oasis of wetlands in an urban area. Water conservation extends to water efficient landscaping, reducing generation of wastewater and potable water demand. Tying water efficiency with ecological goals will promote local aquifer recharge and highlight the lack of landscaping pollutants from the site. There are several technologies that reduce wastewater and potable water demand including high efficiency/dry fixtures, stormwater/greywater reuse and wetland filtration.

### **Energy efficiency**

The environmental and economic impacts of energy efficiency are more important than ever, with effect of fossil fuel use making headlines daily. Energy efficiency begins with an evaluation of the assets the site offers (shading/solar, wind, topography, water bodies, etc) with respect to the seasons as these often afford opportunities to make sites and buildings more efficient and comfortable. Passive solar/thermal mass heating in winter, shading in winter, berming, daylighting and natural ventilation can be utilized.

**Alternative/ renewable energy** (wind, geothermal, solar panels, solar hot water) should be considered to minimize the sites impact and make it as self sufficient as possible.

There is an incredible variety of environmentally materials can be

found today and there is growing market of repurposed and recycled products. Obtaining materials from local sources decreases transportation pollution, helps the local economy and often imparts a regional character. Using long lasting materials and sound design/construction principles contribute to the longevity of the structure.

Prefabricated structures can impart excellent thermal qualities while decreasing labor expense and construction time. Reusing or repurposing structures will also decrease the environmental impact of the project.

Indoor air quality can be improved by using materials (insulation,carpets) and finishes/sealants (paints and coatings) that have minimal off gassing of harmful chemicals. Individual controllability of lighting and HVAC can offset energy costs. Careful building design can provide alternatives to 'traditional' air conditioning such as seasonal shading and cross ventilation with breezes from the Lake.

Bailey and Harris Architects encourage their clients in following sustainable practices. We employ regional design strategies, strive for program efficiencies, embrace “not so big”, specify local materials, work with local craftspeople, detail for simple stupid time tested construction techniques

And along the way.....collaborate, communicate and coordinate