## *Top Priorities for Constructing Environmentally Safe and Healthy Schools*

## *Milton E.H. & S. Committee recommendations:*

- **Design the Milton school buildings to support healthy learning, incorporating sustainable design and toxic-use reduction principles. Use the "LEED Green Building Rating System" and the Resource and Strategy Guide –High Performance School Buildings** (published by the Sustainable Industry Council) **as a guide for sustainable design.**

**Building shell (walls, roofs, floors and windows) should be designed to**:

- Meet the new Massachusetts State Building Energy Code
- Use materials and products in the shell (walls, floors, roofs, and windows) that are energy efficient
- Use day lighting systems that avoid excessive heat or heat loss and minimize glare
- Use specific components in the building shell that integrate and optimize insulation levels, glazing, shading, thermal mass, air leakage, and light–colored exterior surfaces. As an example, use brick and cement and for the corridor walls, use tiles rather than plaster

**Building and finish materials:**

- Use durable and low toxicity or non-toxic products for all purchasing contracts (ex's: furniture, flooring, roofing, paints, adhesives, caulks, epoxy, building and finish materials); refer to Architectural Guidelines for Acceptable Indoor Air Quality for School Construction Projects prepared by the Minneapolis Public Schools
- Investigate purchasing environmentally preferable products through the Mass State EOEA Municipal Contract
- Eliminate or reduce the use of products and materials containing: high VOC's, formaldehyde, mercury, creosote, pesticides, PVC (roofing), arsenic (no pressurized wood)
- Limit or eliminate use of carpeting
- Develope a "materials specification book" along with material safety data sheets for products, and develop a system for monitoring product substitution
- Choose building materials that will allow low maintenance
- Do not use portable classrooms with formaldehyde as a building component (California manufactures classrooms free of this carcinogen by regulation)
- Look at life-cycle costs of materials when comparing them to the initial cost of materials/products
- Allow 1-2 weeks of continuous ventilation for off-gassing of materials and cleaning before re-entry; refer to Maryland State Dept. of Education Technical Bulletin on Maintaining Indoor Air Quality During the Renovation of a School

- Provide training for school staff on using and maintaining the new building

**Ventilation system designed for:**

- Highest standards for providing good indoor air quality in completed school
- High efficiency, energy saving HVAC system and explore renewable energy systems
- Minimal noise of systems
- Walk-in/ easy access to mechanical and filtration systems for maintenance
- Ventilation monitoring system (ex. monitors temperature, humidity and carbon dioxide)
- Greater air circulation: we recommend 20 cfm's rather than the standard guidance of 15 cfm
- Adequate ventilation rates for pollution generating rooms, activities and materials (ex. labs, art, gym, office equipment)
- Air intakes located away from pollution sources (ex.'s bus fumes, dumpsters)
- Operable windows with screens in every occupied room
- Variable comfort range for temperature in individual rooms
- Mechanical systems that are balanced and working according to specification before the building is occupied

**Procedures to protect children and school staff during school construction and renovations:**

- Include SMACNA Guidelines (has adopted by the DOE) which protect occupants from hazardous exposures in contractor bid specifications
- Establish mechanisms for communications with the Building Committee to inform the school community what will be taking place and what to expect so planning for minimal disruption can take place
- Test buildings for radon before occupancy and mitigate where needed.
- Identify all source of hazardous materials in existing buildings (ex. lead, asbestos); properly remove and dispose of these materials