



## SERVICES PROVIDED

### ***Overview-***

Below is a list of some of the consulting services offered by 21<sup>st</sup> Century Technologies. Please contact our staff if you have any questions regarding our services and how we can best meet the specific goals of your project.

### ***Leadership in Energy and Environmental Design (LEED) Projects***

As a member of the US Green Building Council (USGBC), we are committed to building the most energy and water efficient as well as healthy buildings possible. Our staff includes LEED accredited professionals, worth an additional point towards accreditation for each project our team is involved in. For more information about the USGBC and LEED please go to [www.usgbc.org](http://www.usgbc.org).

### ***Energy Conservation/Efficiency***

Saving energy is the cleanest, greenest, and cheapest form of energy available. It has the most rapid return on the investment (less than 2 years) and utilizes the most widespread and proven technologies available.

1. Ultra efficient lighting
2. Cool roof design
3. Natural ventilation cooling
4. Dehumidification/mechanical air handling
5. Variable speed air conditioning
6. Building envelope design
7. Building orientation
8. Window Selection
9. Enthalpy wheels
10. Enhanced commissioning of systems
11. Occupancy sensors

12. Energy management and monitoring systems
13. Operations and maintenance conservation education and strategies

### ***Water Efficiency***

Water and energy efficiency are so closely interconnected, our company considers them to be effectively the same and of equal importance in optimizing the overall efficiency of any project.

1. Rain water catchment for irrigation and flushing of water closets. (Also mitigates storm water surge.)
2. Low flow water fixtures (faucets, showers, toilets, etc)
3. Flushless urinals (saves 40,000 gallons water per year).
4. Greywater irrigation
5. Constructed wetlands (for storm water and waste water treatment)
6. Flushable composting toilets
7. Xeriscaping using native plants, drought tolerant turfs and landscaping
8. Leak prevention, detection, and location
9. High efficiency water using appliances
10. Pools (Evaporation controls, efficient pumps, solar pool heating)

### ***Renewable Energy***

Harnessing a project site's available energy sources can dramatically reduce if not completely offset the need for off-site energy sources.

1. Building integrated photovoltaic systems (roofs, curtain walls, windows)
2. Energy producing sculptures
3. Solar thermal (hot water) systems for hot water production, radiant floor heating, snow melting from walkways and parking areas
4. Building integrated wind systems, small and large commercial scale wind systems
5. Small scale hydroelectric systems
6. Biodiesel backup generator

***Other Services-*****Indoor Environmental Quality**

1. Low-emission materials:
  - a. Sealants
  - b. Paints
  - c. Carpet
  - d. Composite wood products
2. Maximizing daylight and outdoor views
3. Individual lighting and thermal comfort controls
4. Carbon dioxide and carbon monoxide sensors
5. Management plan for protecting and commissioning of air quality during and after construction.

**Site Planning**

1. Stormwater management -quantity and quality
2. Heat island effect
3. Light pollution reduction
4. Construction activity pollution prevention

**Materials and Resources**

1. Recycling system and sorting area
2. Construction waste mitigation program
3. Recycled content of building materials
4. Rapidly renewable materials
5. Green certified wood and wood products

***President***

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