

## GENERAL CONSULTING

- Financial Analysis and Planning
- Energy Analysis and Optimization
- Water Analysis and Optimization
- Material Analysis and Optimization
- Indoor Environment Planning
- General Planning
- Green Building and Non-Green Building Proformas
- Comparison of Green Building Options
- LEED or Other Green Building Criteria

## ADVANCED CONSULTING\*

- Client Education
- Objectives Definition
- Visioning Workshops
- Sustainable Design Charrettes
- Sustainable Community Strategy/Solutions
- Sustainable Team Assemblage
- Strategic Alliances
- Jurisdictional Requirements & Negotiation
- Preliminary Incentives Analysis
- Socio-Economic Impact Analysis
- Eco-Value Engineering™
- Triple Bottom-Line Analysis

## DETAILED DESIGN

- Urban Planning
- Civil Engineering
- Structural Engineering
- Mechanical Engineering and Plumbing
- Electrical Engineering
- Development of Construction Documents
- Site Observations and Construction Administration

## COMMISSIONING\*\*

- General Oversight and Input of Green Building Strategy
- Development of Commissioning Plan
- Commissioning Design Review of Owner Project Requirements and Basis of Design
- Verification of Installation of Systems to Be Commissioned
- Review of Contractor Submittals of Systems Being Commissioned
- Commissioning Summary Report
- Development of Systems Manual
- Verification of Training and Qualifications of Operating Personnel
- Post-Construction Follow up Review of Building Operations

## FIELD VERIFICATIONS\*\*

- Measurement and Verification of MEP System Performance
- Measurement and Verification of VOC Levels
- Measurement of Air Borne Contaminants and Particles
- Measurement and Verification of Indoor Lighting Parameters

## SELECTED SUSTAINABLE DESIGN SKILLS

### Sustainable Site Design

- Site Analysis and Selection
- Zoning, Space Planning, and Building Functionality Analysis
- Earth Dike Design
- Silt Fence Design
- Pervious Ground Surfaces Design
- Pervious Pavement and Roadway Design
- Interior and Exterior Lighting Analysis and Design
- Vegetative Roof Design
- Sediment Catch Basins
- Biofilter and Bioswale Design
- Sediment Trapping Ponds and Earth Embankments

### Water Resource Management

- Water Efficiency Analysis and General Consulting
- Water Reclamation / Retention / Discharge Analysis

### Energy and Atmosphere

- Analysis of Energy Usage and Cost
- Energy Usage Upgrade of Existing Structures
- General Design with On-Site Renewable Energy Sources
- Solar Energy Systems Design
- Commissioning of Domestic Hot Water Systems
- Knowledge of ASHRAE Mandatory and Prescriptive Requirements
- Energy Systems Design, Installation, Operations, and Automation Control
- Hands-on operating , troubleshooting, balancing, testing, maintenance of energy systems
- Computer Simulation and Modeling of Energy Usage
- Design of Water Heating Systems With Solar Energy Sources
- Design of Solar Heat Pumps with Geothermal Energy Sources
- Analysis and Modeling of Existing HVAC Systems and Cost
- Refrigerant chemicals, types and usage

### Materials Resource

- Analysis, Design, and Retrofit of Existing Structures (Structural and MEP)
- Knowledge of material science, composition, and content
- Optimal Value Framing Techniques
- Deconstruction-Demolition Material Re-Use Consulting
- Recycling Process, Review and Planning
- Storage, Elimination, and Treatment of Hazardous Materials

### Indoor Environment

- Research and Specification of Low VOC materials
- Ventilation Analysis and Design
- Daylight Design
- Indoor Pollution Reduction Design Techniques

\* Some advanced consulting services are provided by sustainability advisor, Judi Schweitzer

\*\*Item is typically sub-contracted to specialty firms and other related resources