

Random House Distribution Center - Energy Study

TerraLogos was engaged by the major publishing firm to analyze their North American Distribution Center for energy and water savings. The project began with a preliminary analysis of existing conditions. An on-site survey and a utility analysis were used to generate a baseline for the buildings. Twenty-three Energy Conservation Models (ECM) and five Facility Improvement Measures were developed and evaluated for their relative cost effectiveness. We bundled the 23 ECMs and 5 Facility Improvement Measures into 3 primary strategies and 1 future option.



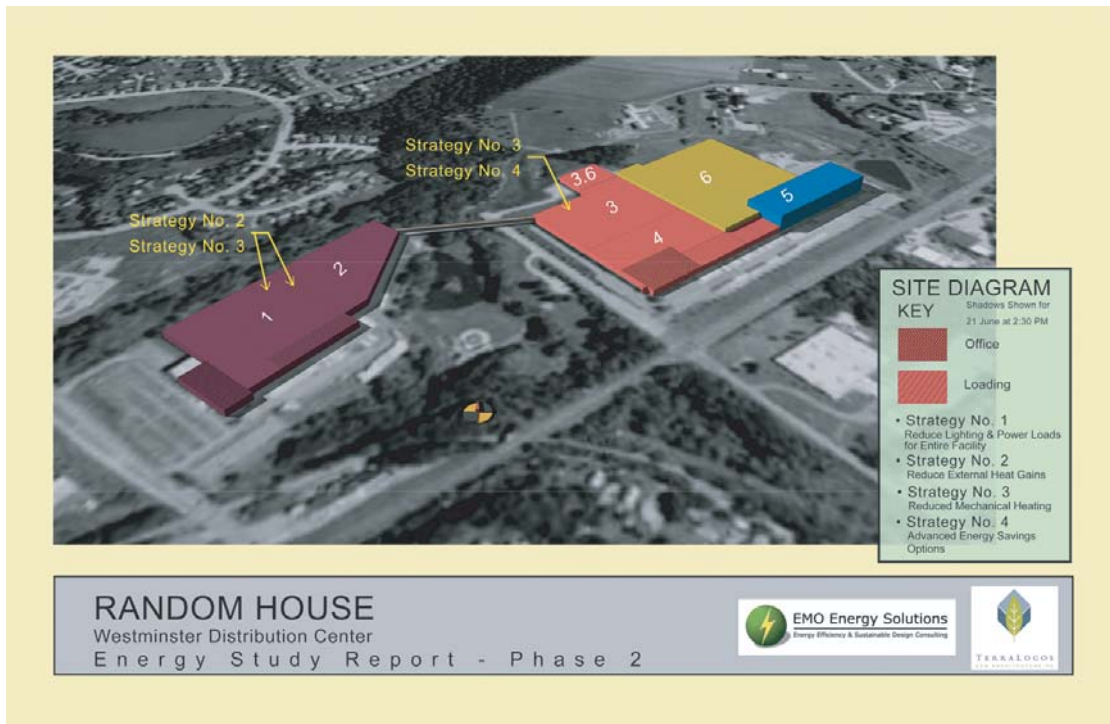
TERRALOGOS
ECO ARCHITECTURE, PC

CLIENT:
Random House
Publishers

PROJECT LOCATION:
Westminster, Maryland

COST:
NA

COMPLETION:
2007



ENERGY CONSERVATION STRATEGIES:

- Strategy 1 – Reduce lighting loads and electric power usage throughout the facility
- Strategy 2 – Reduce external heat gain loads for Building 3+4
- Strategy 3 – Reduce or Eliminate Mechanical Heat Generation in Buildings 1,2,3 & 4
- Strategy 4 – Advanced Energy/Resource Conservation Options

The three primary strategies have been retro-fitted into the existing buildings. The future options strategy will be implemented along with the primary strategies in new buildings and additions as they are built.



CONVEYORS IN TYPICAL WORK AREA

ANNUAL ENERGY CONSUMPTION BREAK-DOWN PER BUILDING

	Offices-WH1	Computer Room	Warehouse 1	Warehouse 2	Warehouse 3	Warehouse 4	Warehouse 5	Warehouse 6	Warehouse 3.6	Total
Electricity Consumption (kWh)	556,956	3,960,041	2,862,124	1,034,858	6,101,465	1,860,042	161,353	1,596,790	282,524	18,541,093
	3.0%	21.5%	15.6%	5.6%	32.9%	10.1%	0.9%	8.6%	1.5%	

	Warehouse 1 and Offices-WH1	Warehouse 2	Warehouse 3&4 and Office-WH4	Warehouse 3.6	Warehouse 5	Warehouse 6	Total
Gas Consumption (therms)	63,158	14,429	60,933	12,553	23,490	121,121	295,684
	21.4%	4.9%	20.6%	4.2%	7.9%	41.0%	

