

WHAT DOES GREEN MEAN?

(REALLY.)

Green architecture creates high-performance buildings that operate at optimum efficiency with reduced environmental impact. Green buildings enhance the health and productivity of the tenants, and have become a powerful economic stimulus for owners and occupants alike.

With imagination and by design, we can consume less energy and make some of our own. We capitalize on resources that are as free as sunlight and rain, and conserve materials that are becoming scarce. To build the Bank of America Tower, we planned site demolition, construction, occupancy and operation to new standards of efficiency and responsibility. Even the air we breathe is filtered to enhance health and productivity. What does green mean? To us, green means business.

BUILDINGS POLLUTE?



SOURCES OF CO2 EMISSIONS

We all know that vehicles and industry pollute. But buildings? The energy used to keep us warm or cool, to light interiors, and to power equipment and appliances is responsible for more pollution than either transportation or industry.



HOW DO YOU

We have used 35% recycled materials in our construction, and we've recycled 85% of our construction debris. The cement in the building consists of 45% blast furnace slag, keeping more than 52,000 tons of CO_2 from the atmosphere. And more than 20% of the construction materials used in the Bank of America Tower were sourced from within a 500-mile radius.



More important than providing insulation, green roofs collect rainwater. And so do our four storage tanks, which collect 69,000 gallons of rain. This is filtered and used as "gray water" for cooling the building and flushing the toilets. We collect and filter water from all of our sinks, and put it back to work in toilets, reducing our need to pipe in potable water.

In New York City, collecting rain is critical. Why? Typically, rainwater washes into the sewer system and ends up at a sewage treatment plant. When rainfall exceeds ¹/₄ inch, it overwhelms the plant's capacity to treat it. The overflow—a mixture of rainwater and sewage—is dumped, untreated, into the rivers and harbor. Our green roof and rainwater storage tanks absorb the rain, slow the runoff, and help keep the harbor clean.







Each flush of a typical urinal sends a gallon of otherwise potable water down the drain. By installing waterless urinals in the building, we will conserve 3.4 million gallons of water every year—enough to fill five Olympic-size swimming pools. This, along with our rainwater collection, conserves 17 million gallons of potable water each year.



WHERE DOES POWER COME FROM?

Power comes from wall outlets, right? Right. But before it even gets there, it has lost almost 75% of its energy along the way.

At a traditional coal-fired power plant, about 66% of the energy produced is lost as heat. It goes up in smoke, literally. The rest is delivered via "the grid," where yet another 7% of power is lost along the way. You pay for all of it, but receive just 27% of power generated and delivered conventionally.

The Bank of America Tower houses its own co-generation plant, which is about three times as efficient. It captures the heat it generates and puts it back to work, converting it to energy that's used to heat and cool the building.



BRYANT PARKING?

If we built in a traditional office park, the parking lot would be eight times the size of Bryant Park. Public transportation is part of our scheme. A New York subway car gets the equivalent of 540 miles per gallon— 22 times more efficient than a typical automobile getting 24 mpg.

DO BUILDINGS BREATHE?

Healthy air is critical to a comfortable and productive workplace. Interior material (paints, carpeting, adhesives and furniture) were selected to avoid products that give off volatile organic compounds. And 95% of the dust, dirt and particulates are filtered from the air that enters the Bank of America Tower. In fact, the exhaust air will actually be cleaner than the outside air.



IS IT HOT IN HERE OR IS IT ME?

With overhead air conditioning ducts, cool air is warmed by ambient air as it descends into the work space. To compensate for this, it must be chilled to 55 degrees. Because our cooling is provided by under-floor ducts, we cool air to just 65 degrees. At floor level, our incoming fresh air does not recirculate airborne germs; they collect, then exit with warm air through return vents in the ceiling. And floor-mounted vents can be individually controlled, accommodating preferences for a warmer or cooler work space.

HOW COOL IS THIS?

Piping coolant through ice allows us to air-condition our buildings. By making our own ice at night for use the next day, we reduce our power usage during peak-demand times, lessening strain on the fragile city grid.

HOW ABOUT A NICE OFFICE IN THE BASEMENT?



No thanks. People prefer—and perform better with—ample access to daylight. Our facade and floor plans have been carefully designed to provide plentiful daylight throughout the space.