OFFICE DEPOT
LEED VOLUME CERTIFICATION v1.0
CASE STUDY: Anderson Lane, Austin, TX

Project Summary

The Office Depot's Anderson Lane retail prototype store in Austin, Texas, is 20,898 square feet
The building's program/functions are divided into four basic areas:

- Entry/Vestibule – 129 square feet
- Sales floor – 18,438 square feet
- Receiving – 1,528 square feet
- Back of House area – 813 square feet (office, employee area, rest rooms)

The Anderson Lane project is Office Depot's first LEED-certified store and part of Office Depot's efforts towards achieving LEED Volume Certification. As part of this effort, quality control forms were created and a process was implemented to verify compliance with LEED requirements by requiring the General Contractor to sign the forms throughout each stage of the project.

Office DEPOT®

SUSTAINABILITY MAP

1 The building has implemented an extensive recycling program for corrugated cardboard, paper, plastic film, cans, glass, and plastic beverage containers. Recycling bins are placed throughout the store and within the employee lounge.

2 More than 75% of demolition and construction were diverted from landfills.

3 All interior partitions are composed of recycled steel studs and 95% recycled gypsum wallboard.

4 The tile used in the bathrooms and cleaning closet contain 55% recycled materials.

5 All carpeting used in the project meets Green Label Standards for Indoor Air Quality and all carpet contains 35% recycled materials.

6 The steel joists and girders contain 100% recycled steel. The steel decking contains 70% recycled steel. All structural steel is 75% recycled and was regionally purchased.

7 All concrete used in the project contains 60% recycled content. 30% of the concrete contains recycled crushed concrete aggregate.
The concrete is composed of 20% fly ash.
100% of the concrete is regional.

8 More than 50% of the wood used in the project is Forest Stewardship Council (FSC) Certified Wood. All interior doors are composed of 100% FSC Certified Wood.

9 By the use of dual flush toilets and low flow urinals water use is reduced by 30%.

10 The design carefully analyzed the HVAC and electrical systems and reduced the building's energy consumption by more than 25% compared to a typical Office Depot. This was achieved by using proper amounts of insulation, skylights, and dimming systems.

11 The building uses no Chloro Floura Carbons (CFC)-based refrigerants.

12 All the rooftop units will be integrated into Office Depot's national energy management system. The NOVAR building automation controllers allows for the remote monitoring and control of the HVAC system which prevents unnecessary energy consumption.

13 More than 50% of the site has a Solar Reflectance Index (SRI) value of 29. This reflective groundcover will help reduce the heat island effect surrounding the building.

14 By redeveloping an existing dilapidated site, the destruction of inappropriate sites has been avoided.

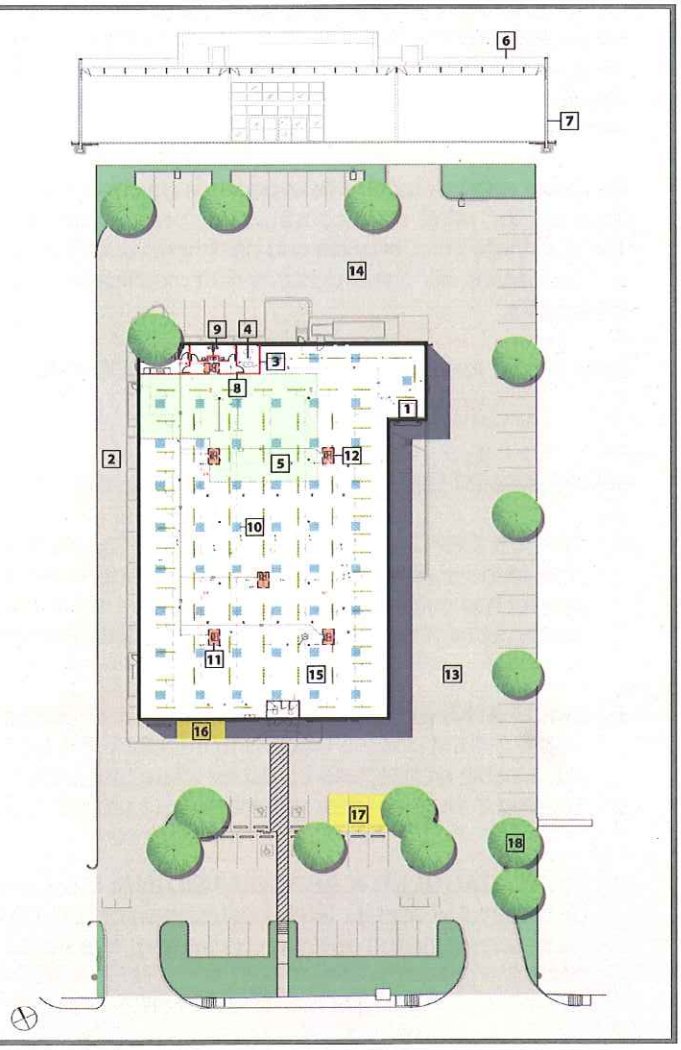
15 The roof uses a highly reflective membrane which gives a SRI of 96. This membrane helps reduce the heat island effect and reduces cooling loads for the building.

16 Bicycle storage plus a comprehensive bicycle route map are provided near the main entrance.

17 There are designated parking spaces for fuel efficient vehicles and carpool vehicles. Also, the total parking capacity has been reduced to meet the minimum zoning requirements.

18 The existing impervious cover has been reduced by introducing trees, shrubs, and ground cover.

This building purchases Green Power Credits to help fund the development of renewable energy production.



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Project Team

In March, 2007, with assistance from SBLM Architects, Office Depot enrolled in the U.S. Green Building Council (USGBC) Retail Pilot Program. SBLM also coordinated the formation of a multidisciplinary team of consultants and Office Depot representatives. This team was charged with applying green building strategies to Office Depot projects and with adapting the requirements of LEED certification to a retail project.

In addition to coordinating the team and acting as liaison between USGBC and the consultants, SBLM served as the project designers and Architects of Record. Engineers on this team include Hart Gaugler Associates (Structural), Henderson Engineers (MEP), and Kimley Horn & Associates (Civil). The team held weekly meetings via conference call to work on achieving credits for certification.

ACR, Commissioning Agent, is on board as part of the project team to oversee the actual field implementation systems that qualify for the LEED credits. Specifications require the general contractor to provide a construction waste management plan and recycle at least 75% of the demolition debris and the new construction waste materials.

The team also leveraged this experience by offering feedback on the USGBC's pilot program for retail new construction, participating in monthly conference calls. Through these calls, retailers and designers were able to share challenges, concerns and successes with the program's draft modifications to retail focused pre-requisites and credits.

Office Depot formally registered with the USGBC in August, 2007.

Office DEPOT
Taking Care of Business

SBLM Architects

HGA HART, GAUGLER & ASSOCIATES, INC

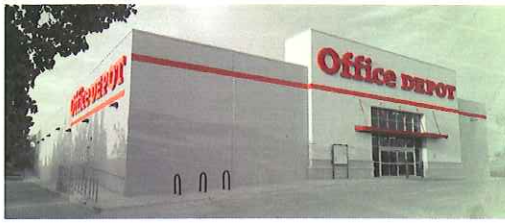
HENDERSON ENGINEERS INC

KHA

ACR ENGINEERING, INC.

Members of the Project Team include:

- **OFFICE DEPOT:** Office Depot has, over the years, clearly committed to environmental and sustainability concerns, and has now found support from the USGBC to extend this effort to our new and existing buildings. Our experience with the Austin project has enlightened our understanding of our options, and our impact potential. Our partnership has become fundamental and is certainly a solid foundation for our future. *OFFICE DEPOT: 2200 Old Germantown Road, Delray Beach, FL 33445 T: 561 438 4800 F: 5614384178 www.officedepot.com*
- **SBLM ARCHITECTS:** As the prototype architect for Office Depot, SBLM is excited to be a key part of a collaborative effort with our client and the USGBC to transform the present prototype into a LEED certified model. Office Depot will now have a sustainable architecture-based template that standardizes the certification process and extends their commitment to green building throughout their national roll out program. *SBLM ARCHITECTS: 151 West 26th Street, New York, NY 10001 T: 212 995 5600 F: 212 675 4228 www.sblm.com*
- **HART, GAUGLER & ASSOCIATES, INC:** Steel is always an easy choice for a green project structure. Joists are typically 99% recycled content (83% post-consumer and 17% pre-consumer) with steel beams at about 94% recycled content (78% post-consumer and 16% pre-consumer). We would expect the roof deck to be around 70% recycled (58% post-consumer and 12% pre-consumer). *HART, GAUGLER & ASSOCIATES, INC: 12801 N. Central Expressway, Suite 1400, Dallas, TX 75243 T: 972 239 5111 F: 972 239 5055 www.hartgaugler.com*



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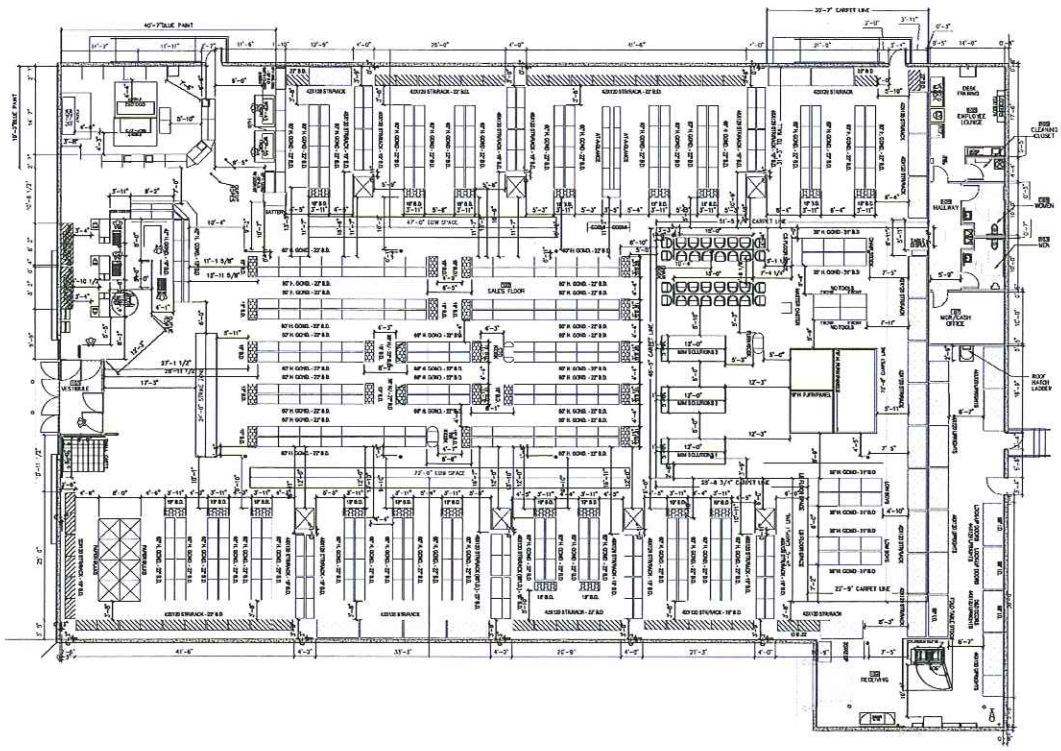
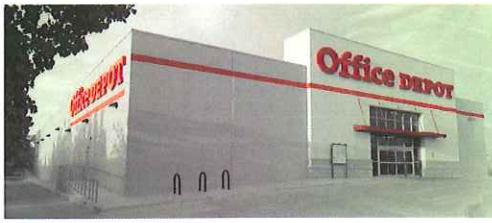
Members of the Project Team include:

- **HENDERSON ENGINEERS, INC:** Oftentimes, sustainable/LEED strategies and concepts are on a different track than conventional prototype and roll-out design. One example of this on Office Depot was how to best integrate Day lighting into the project while being mindful of the operations and maintenance of a National Retailer. In the end, we were able to successfully incorporate Day lighting while minimizing any added maintenance, reducing energy consumption and enhancing the overall retail experience. *HENDERSON ENGINEERS, INC: 8325 Lenexa, KS, 66214 T: 913 742 5388 F: 913 742 5001 www.hendersonengineers.com*

- **KIMLEY-HORN AND ASSOCIATES, INC:** This has been an exciting and rewarding project to work on, and it is a breath of fresh air to remediate an existing site rather than paving the world. Office Depot and the design team have taken a site that was nearly 100% paved, and by placing only the minimum number of parking spaces, reduced it below the City of Austin requirements for Urban Development. *KIMLEY-HORN AND ASSOCIATES, INC: Bldg 1, Suite 300, 10415 Morado Circle, Austin, TX 78759 T: 512 418 4512 F: 512 418 1791 www.kimley-horn.com*

- **ACR ENGINEERING, INC:** In 1980, ACR Engineering, Inc. adopted the principles of re-engineering and applied the discipline in innovative ways to make buildings and systems more energy efficient and less costly to operate. Today, energy efficiency is at the heart of each and every ACR Engineering, Inc. project. We've continually improved our methods and expanded our expertise in 'standard' engineering services, but efficient energy use is our passion and is still our 'raison d'être'. Our services include energy management and cost control, commissioning and recommissioning, energy saving performance contracting, and assistance with issues involving State and Federal energy programs and initiatives.
  ACR ENGINEERING: 907 S. Congress Avenue, Austin, Texas 78704-1741 T: 512-440-8333 F: 512-440-8328 www.acreng.com





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Sustainability

Office Depot is one of a select few companies using the Volume Certification process by participating in USGBC's Portfolio Program, a pilot program formed to help retail chains achieve LEED-Certification at numerous locations and to facilitate the certification process for a company's prototype. On completion, the energy and resource-efficient Office Depot Anderson Lane store in Austin, Texas, will be the first registered project to certify as LEED-NB for retail within USGBC's LEED (Leadership in Energy and Environmental Design) Volume Certification Program. This enables participants to integrate the LEED green building rating system into new and existing buildings in their company's portfolio. Office Depot is the only office supply retailer participating in the program, and the first retailer to obtain [pre-certification of the of the volume program within the LEED-NB category.

The Anderson Lane store implements an extensive recycling program that diverts the top three waste streams from entering landfills. All cardboard, paper, and plastic film are collected and hauled to a recycling facility on a weekly basis. The store also collects and recycles glass, bottles, and cans. In addition to the recycling program, this store offers services such as battery drop off, ink cartridge refill, cell phone recycling, and computer/printer recycling.

The building is located near public transportation routes, the parking field is designed not to exceed zoning requirements and preferred parking is provided to low emitting and fuel efficient vehicles. More than 50% of the parking lot will have a Solar Reflectance Index value of at least 29. Bicycle racks and route maps will be available for customers who are committed to helping reduce the use of automobiles.

Upon final submittal of LEED-credit requirements, the Anderson Lane project will be a candidate for a gold LEED rating.

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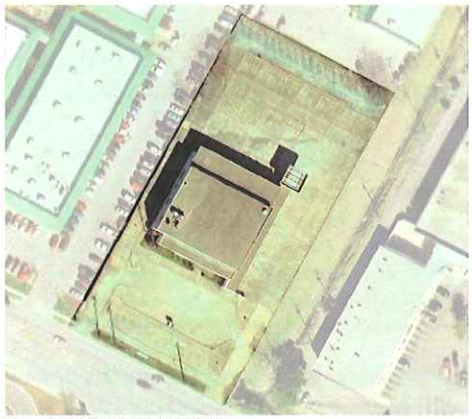
Project Site Conditions

On possession, the site was fully developed with an abandoned 9,770 square feet old Post Office and a 99% paved lot with minimal landscape. There is excellent visibility and access from W. Anderson Lane, a major road. Other commercial/retail developments are on all adjacent three sides of the property and across the street is a major retail shopping mall.
The postal facility was demolished, but a large portion of the concrete pavement was retained. During construction an Erosion and Sedimentation Control plan was followed to prevent soil erosion, water sedimentation and airborne dust generation. More than 75% of demolition and construction materials will be diverted from landfills. A significant portion of the new building was constructed using materials with recycled content.


Site - Aerial View before Demolition


Abandoned Post Office


Abandoned Post Office

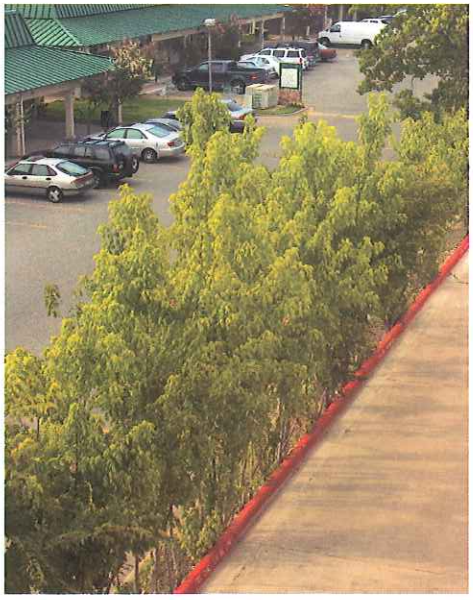

Site - Post Demolition

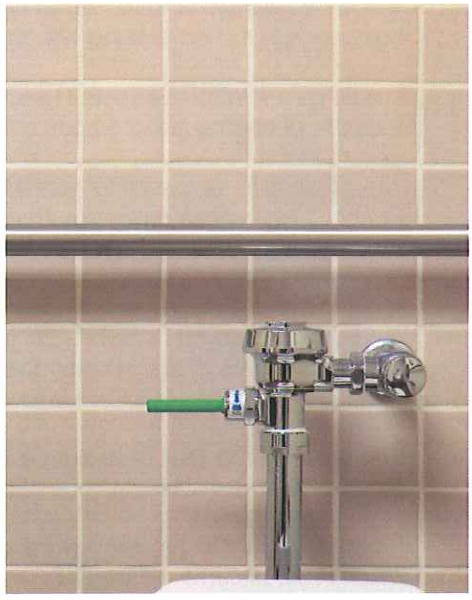
Water Efficiency

By using water conserving fixtures, the facility is projected to cut down on water use by 30% to meet credits WE 3.1, and 3.2. Low flow water closets, urinals and sensor operated lavatories are used to conserve water. The tank type water heater was chosen for its energy efficiency. All hot water lines are insulated.

Irrigation is provided for xeriscape landscaping designed for minimal water usage. This "drip" irrigation system reduces the water usage by 50% compared to a typical irrigation design with standard landscaping.

These water conservation measures help the Anderson Lane project qualify for incentives.



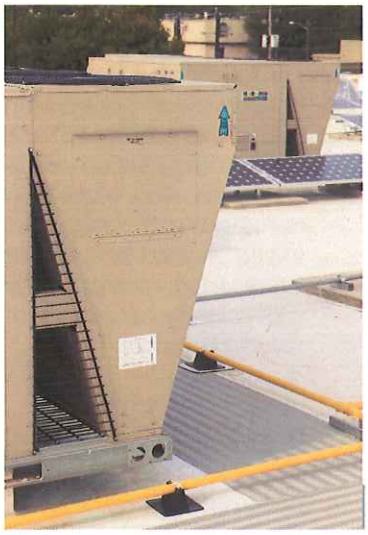


Energy Efficiency

Mechanical

The mechanical systems are designed in compliance with the Core Performance Guide 2007. The Volume will identify the requirements for the 8 climate zones as the guide defines:

Outdoor design conditions:	**98°F db, 74°F wb Summer** **25°F db, 21°F wb Winter**
Indoor design conditions:	**75°F db Summer** **70°F db Winter**



Three distinct areas require HVAC systems including the sales floor, back of house spaces and the receiving/stock room. Ease of maintenance, minimizing visual impact on the sales floor, reducing upfront and operating costs, maximizing usable square footage and reducing required ductwork and piping were other considerations of the design. The use of Lennox SG packaged rooftop units to condition all spaces, four 10 ton units with drop box diffusers will serve the sales floor, and one 5 ton unit with conventional air distribution will serve the back of house area and the receiving space.

The sales floor is split into four zones, each served by a single remote terminal unit (RTU). The back of house offices and the receiving area are served by a single zone, with the thermostat located in the Office.

Each unit is set for a minimum quantity of outside air. The minimum set point will be overridden to 100% if CO2 sensors on the sales floor detect levels above the set point. The system is designed to meet the guidelines of ASHRAE 62.1.

The HVAC system is designed to offset the envelope load as well as the many copiers and computers in the store along with the occupant and ventilation loads.

The RTUs are rated at 12.1 EER and 15 IPLV. The ten ton sales floor units are equipped with 2 stages of cooling and 2 stages of heating.

The efficiencies of the units exceed the requirements of ASHRAE 90.1 which satisfies EA Prerequisite 2 Minimum Energy Performance. The efficiency of the units also contributes to EA credit 1 Optimize Energy Performance.

The building simulation model was run using Carrier's "HAP" software. Two models were made. The baseline model meets the minimum requirements of ASHRAE 90.1 2004. The design case was modeled using the proposed systems and components. Both simulations follow the guidelines identified in the Building Performance Rating Method of ASHRAE 90.1.

The finish of the roof is designed as a white membrane which will reflect heat from the building (heat island effect), thus reducing the amount of MEP cooling requirements.

Each site adapted project will need to verify if there are any incentives for the designed Mechanical systems.

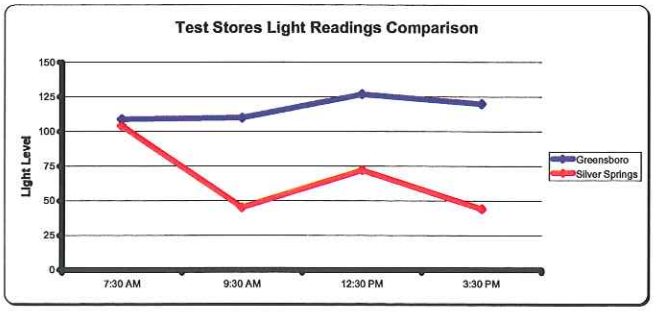
Electrical

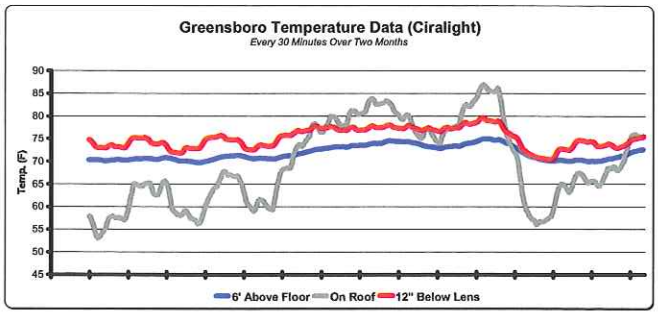
The electrical system is designed per the Core Performance Guide 2007 and is designed to meet or exceed the requirements set forth by LEED for retail credits EA-5, and EQ-6.1 along with provide reduced energy consumption to meet the requirements of LEED credit EA-1. It reduces the electrical demand during peak hours by reducing the energy consumption of the light fixtures when daylight is available. This energy reduction helped to make the project eligible for local incentives.

The power distribution system for the Anderson Lane store consists of an integrated power and control center (IPACs). Within this power and control center is a main distribution panel board, four branch panel boards for lighting, HVAC, and miscellaneous equipment, along with a building automation controller to monitor and control energy usage.

Interior lighting is provided to this space through the use of suspended fluorescent fixtures. These fixtures utilize high output T5 fluorescent lamps to achieve an average of 100fc in sales areas. 2x4 lay-in fluorescent fixtures are utilized in office, break room, and restroom areas to provide illumination levels per IESNA standards. The sales area light fixtures are controlled by the building automation system along with photocell sensors to dim the lights when daylight is available from the skylights. The building's automation system provides automatic control for On/Off scheduling along with light level control to reduce the maximum light output from the fixtures to 50% when the store is closed but still occupied by employees. The luminaries in the office, break room, and restroom areas are controlled by occupancy sensors within the rooms. Lighting power density is designed to comply with the international energy conservation code.

A major energy efficiency feature of the design is the inclusion of approximately 50 "active" solar tracking skylights on the roof. Day-lighting is achieved through out the building with these skylights. Solar tracking is achieved via motorized mirrors that follow the sun's path maximizing the amount of time the sales floor can be illuminated solely by the skylights. Office Depot has tested this system in another store. The sales floor luminaries are controlled by photocells that dim the fixtures when not needed to achieve desired luminance levels. This advanced technology provides a bright, glare-fee light through the interior of the store, and there are also light sensors in conjunction with a dimming lighting system to reduce energy consumption.

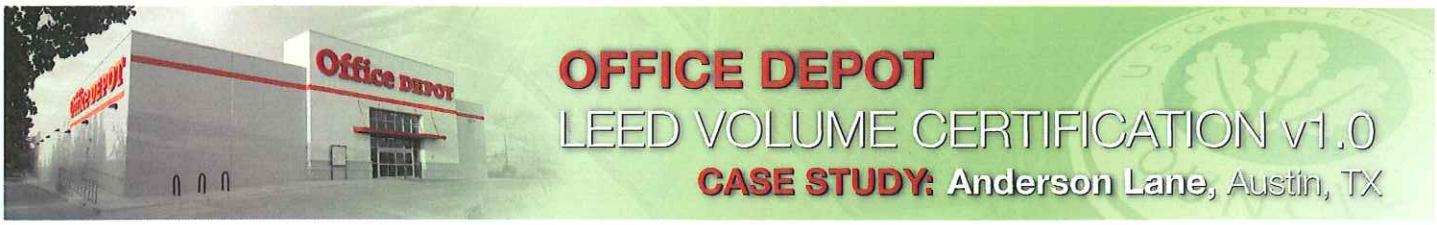




Energy efficient lighting is also achieved through the use of high efficacy T5 fluorescent light fixtures in conjunction with automatic day-lighting control to reduce operating times.

Exterior lighting is provided by pole mounted metal Halide light fixtures. The fixtures are designed for full cut-off and are provided with shields to minimize light pollution and light trespass. The fixtures are laid out to provide 2fc average luminance in parking areas and 5fc average luminance on drive isles.

Office Depot is also purchasing "green power" in the form of Renewable Energy Credits (RECs). In 2006, Office Depot purchased nearly 72 million kilowatt hours of electricity from RECs which represented approximately 12% of the company's total energy consumption in North America.



Interior & Exterior Lighting

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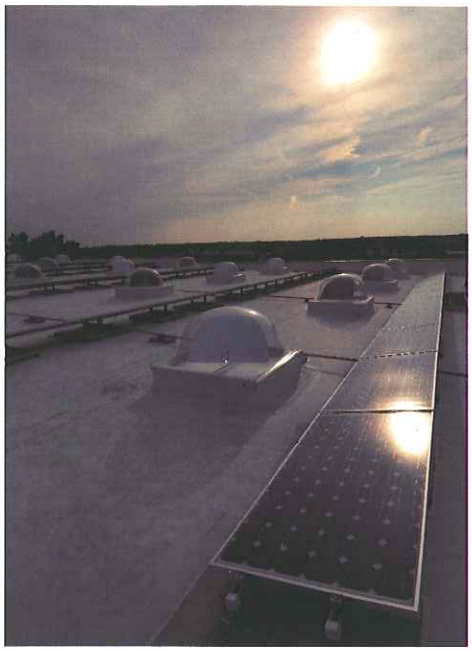
On-site Renewable Energy

Yet another innovation was used in the pursuit of energy savings. Several arrays of photo-voltaic panels (PVs) were added to the roof. The PVs harness solar energy which is converted, via inverters, into electrical power for the store. This system feeds power directly into the main distribution panel (MOP). Conservative calculations indicated that the PV system will provide the equivalent electrical power of more than 10% of the store's total usage.

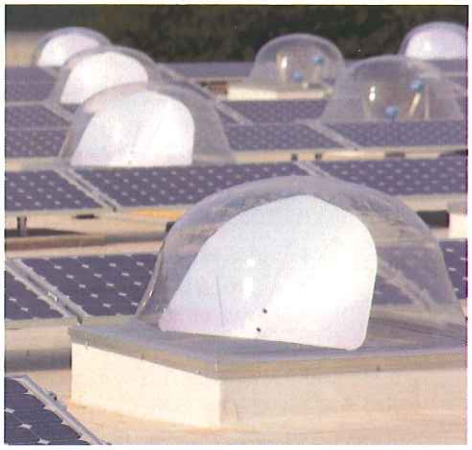
Progressive rebate programs by the local power company and support from the City of Austin help offset the initial investment costs of the system, effectively reducing the "payback" period to an economically acceptable duration.



10.1%

Absolute Reduction in CO2 Emissions from NA Stores and Warehouses 2005-2006, Notwithstanding 4.5% growth in SF under management.

Saving $6.2 Million in Electricity Costs, AND avoiding 66 kWh of electricity.



Energy Use Monitoring

Modeling the building's energy use allowed us to identify opportunities to achieve more than a 25% reduction in energy consumption versus a prototypical Office Depot.

Office Depot upgraded its Energy Management Systems to allow facility and store managers to obtain real-time data and optimize energy usage (i.e. track energy usage and trends from a central location; set temperature at the most efficient energy setting; identify energy-use anomalies; and centralize alarm notification when anomalies do occur, allowing Office Depot to fix issues remotely or notify store managers/vendors immediately). At Anderson Lane, each RTU is controlled with a separate thermostat. All units is integrated into the NOVAR building automation system which will facilitate the remote monitoring and control of the HVAC system.

Materials Selection

The shell components (especially the "tilt-up" concrete walls and concrete floor slab) are integrated with LEED where as a large percentage of the concrete and aggregate mix is "regional" and "recycled" materials (aggregate/recycled concrete as aggregate/fly ash/cement).

The use of a highly reflective roof membrane cuts down on the immediate heat-island effect surrounding the building. This will help cut down on cooling loads for the building and preserve natural ecology. The white membrane provides an "SRI" of "96". Also, additional roof insulation was added as per the "Energy Model".

During the construction of the building, more than 75% of construction and demolition debris was diverted from entering landfills. Additionally, the specifications call out for many construction materials specified to be "regional" and/or "recycled", with the major quantities of materials being concrete (regional and recycled) and steel (recycled). More than 20% of the materials used in the store contain recycled content:

- The concrete has a 30% recycled composition
- The gypsum wallboard is 95% recycled
- The structural steel contains 75% recycled steel
- The steel decking contains 70% recycled steel
- Steel joists and girders contain around 100% recycled steel
- The bathroom tiles contain 55% recycled material
- The carpet tiles contain around 35% recycled material

More than 20% of the materials are regional, meaning that they were harvested and manufactured within 500 miles of the project's site.

- regional concrete
- regional steel
- regional gyp board

This store uses only low-emitting materials, meaning that the harmful off-gassing is reduced to minimal levels:

- low-emitting paints
- low- emitting adhesives/sealants
- low- emitting stains

The interior wood doors are all be FSC Certified, meaning that the forest the wood was originally harvested from environmentally and socially responsible forest management practices. The employee lounge has a PVC-Free Resilient Flooring, PVC is environmentally hazardous and the parking stops in the parking lot is composed of 100% recycled rubber tires

Indoor Environmental Quality

During construction and prior to occupancy this building followed prescriptive measures to prevent HVAC equipment contamination, and flushed out harmful fumes resulting from construction.

The indoor air quality of the store is greatly enhanced as the interior finishes will be comprised of low emitting materials and non-VOC materials. Low-mercury light bulbs are used and a green house keeping program has been implemented. The cleaning supplies that are used in the building are "green" meaning they are environmentally safe and less harmful to the store's occupants.

Permanent HVAC monitoring devices that sense carbon monoxide (CO^2) levels have been installed to ensure that the store has a continuous healthy indoor air quality, and to verify ventilation rates. This will help ensure that sufficient ventilation rates and indoor air quality are provided to all occupants.

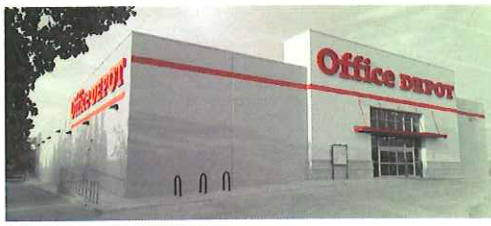
This facility will implement a rigorous no-smoking policy to reduce the harmful effects associated with second-hand smoke inhalation. Smoking is prohibited within 25 feet of the front entrance of the store.

Sustainable Education Efforts

A green education plan has been developed to educate the Anderson Lane store customers about sustainable strategies. Information signage is placed throughout the store identifying the various initiatives which made securing LEED certification possible. Bicycle racks and route maps will be available for customers who are committed to helping reduce the use of automobiles.

The efforts and practices involved in creating this LEED certified building are being documented and used as a case study featured on the USGBC website, as part of the organization's presentation outreach, and also is presented at various trade and industry events.

The larger education plan for the Office Depot Volume Certification Program is extensive and provides useful information to a broad range of constituencies including Office Depot employees, the corporate departments involved with the planning and construction of a LEED Certified Office Depot facility, and the general public. The Anderson Lane store is the first to implement elements of the plan.



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Employee Training Program

All current and incoming employees of a LEED Certified Office Depot will have dedicated training that informs them on the "Green" features of the store. Focused employee training will include the following:

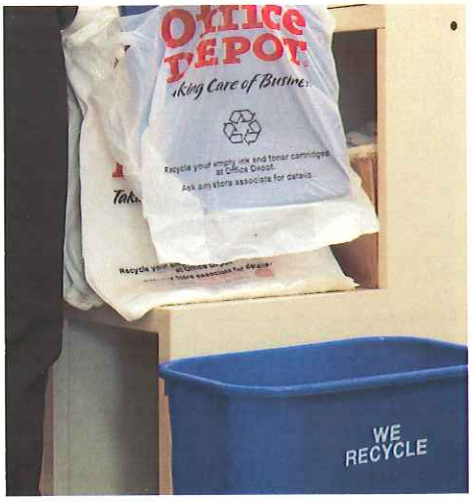
1. What is LEED and who is the USGBC?
2. Employees will be provided with detailed information on "What makes this store green?"
3. An additional handout will offer information on:
    - Recycling procedures and signs in the store
    - Alternative transportation along with a bike maintenance kit
    - How to inform the customer about the store's "green" features.

Customer Outreach

In addition to the "green" products being sold at Anderson Lane store, shoppers are reminded of "green" building features through the use of interior and exterior signage highlighting the "green" features throughout the store.

An interactive Case Study of The Anderson Lane Project will be available on the Office Depot website. This will allow the general public to explore specific sustainable features of the store. This case study will be the result of a collaborative effort involving all project consultants. It will offer a broad perspective on Sustainable Design from the individual professionals who worked on the project.

In addition, customers of the Anderson Lane facility will be offered a take away flyer of "What makes this store green?"



Office DEPOT

Office Depot provides more office products and services to more customers in more countries than any other company. Incorporated in 1986 and headquartered in Delray Beach, Fla., Office Depot has annual sales of approximately $15.5 billion, and employs approximately 52,000 associates around the world. Currently, the Company sells to customers directly or through affiliates in 43 countries.

Office Depot is a leader in every distribution channel -- from retail stores and contract delivery to catalogs and e-commerce. As of September 29, 2007, Office Depot had 1,212 retail stores in North America and another 384 stores, either company-owned, licensed or franchised, in other parts of the world. Office Depot serves a wide range of customers through a dedicated sales force, telephone account managers, direct mail offerings, and multiple web sites. With $4.8 billion in online sales during the last twelve months, the Company is also one of the world's largest e-commerce retailers.

OFFICE DEPOT: 2200 Old Germantown Road, Delray Beach, FL 33445 T: 561 438 4800 F: 5614384178 www.officedepot.com

SBLM Architects

As a Member of the U.S. Green Building Council, **SBLM Architects PC** is committed to achieving the goals of sustainable design. Green building reduces the negative impacts on the environment. Green building enhances the health and comfort of building occupants thereby improving building performance. Our LEED certified professionals help ensure this focus as part of the designer's intention in every project. Our projects include new buildings, additions, renovations, adaptive re-use and restoration projects.

Our LEED System Services include:

- LEED NC/LEED CI
- LEED EB/LEED CS
- Volume Certification
- Design Credit Submissions
- Construction Credit Submissions
- Sustainable Materials & Resources
- Indoor Environmental
- Quality Improvement
- Maximized Water Efficiency

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The **U.S. Green Building Council** is a nonprofit membership organization whose vision is a sustainable built environment within a generation. Its membership includes corporations, builders, universities, government agencies, and other nonprofit organizations. Since UGSBC's founding in 1993, the Council has grown to include more than 13,500 member companies and organizations, a comprehensive family of LEED® (Leadership in Energy and Environmental Design) green building rating systems, an expansive educational offering, the industry's popular Greenbuild International Conference and Expo (www.greenbuildexpo.org), and a network of 72 local chapters, affiliates, and organizing groups.

For more information, visit www.usgbc.org. The LEED Green Building Rating System™ encourages and accelerates global adoption of sustainable green building and development practices through the creation and implementation of universally understood and accepted tools and performance criteria.