**La Pradera**

Tierra Realty Trust has just completed, La Pradera, a certified LEED for Homes-Platinum affordable rental home community in Hobbs, NM. The community consists of 8 multifamily buildings for a total of 60 residential units. Tierra Realty found value in the LEED certification process as it provides a framework for delivering the greenest and most sustainable housing possible. The LEED for Homes-Platinum design and construction requirements increased the total budget by approximately 6% over conventional non-LEED housing.

LEED stands for Leadership in Energy and Environmental Design. LEED certification provides third-party assurance to owners and/or residents that their home complies with rigorous technical requirements for energy and water efficiency, indoor air quality, non-toxic materials, and environmental performance. Homes that are certified through LEED complete a technically rigorous verification process that includes a home energy (HERS) rating and onsite inspections.

La Pradera qualified for the following LEED point criteria:

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| Innovation and Design Process | 9/11 |
| Location and Linkages | 8/10 |
| Sustainable Sites | 14/22 |
| Water Efficiency | 9/15 |
| Energy and Atmosphere | 21.5/38 |
| Materials and Resources | 9.5/16 |
| Indoor Environmental Quality | 11/21 |
| Awareness and Education | 2/3 |
| **Platinum Certified** | **84 points** |

**Innovation and Design Process**

This project achieved 3 innovation and design credits for exemplary performance in irrigation and non-toxic pest control. Reduced use of potable water for irrigation was a high priority to this project because NM gets very little rain fall and water is a precious resource that should be used sparingly for exterior use.

**Location and Linkages**

The site for this project was chosen very carefully to make sure it was within walking distance of public schools, shops, open space and other conveniences. Residents are more likely to live near their workplace and shopping thus reducing or eliminating the need for a car and the expenses associated with a car. Also being close, within ½ mile, to over 14 basic community services and schools means that the number and length of daily trips will at least be greatly reduced.

**Sustainable Sites**

This project is fairly dense at 8 units per acre in an effort to conserve land and promote community livability. Only non invasive and drought tolerant plants were used in the landscape to reduce irrigation demand, conserve potable water and promote regionally appropriate designs. A very small amount (5%) of drought tolerant grass was installed for community enjoyment and over 65% of the site was landscaped in an effort to keep the site permeable (allows water to percolate back into the aquifer).

**Water Efficiency**

Indoor water use in this project was also a high priority once again trying to reduce the amount of potable water usage. The average flow rate for the toilets in the project was less than 1.3 gpf (gallons per flush) and the very high efficient shower heads use 1.75 gpm (gallons per minute) and 1.5 gpm faucets. As noted above this project also achieved an exemplary performance credit for an extremely efficient irrigation system (100% drip).

**Energy and Atmosphere**

Energy efficiency was also a very high priority in this project. The initial goal was to achieve a HERS (Home Energy Rating System) rating of 60 or better. Like golf the lower the score the better. Coal-fired electric utilities emit almost one-third of nitrogen oxide and two-thirds of sulfur dioxide (green house gases). The estimated yearly energy cost is under $650 for a typical apartment home. This includes heating, cooling, hot water, lighting, appliances and service charges. The carbon dioxide ($CO_2$), sulfur dioxide ($SO_2$) and Nitrogen oxide ($NO_x$) reduction in green house gas emissions is a total of over 34% lower than a similar code designed home.

- HERS Index of 58 – all electric project
- Exceeds the Performance Requirements of ENERGY STAR for Homes including third party inspections
- Highly Insulated Envelope

- ENERGY STAR Windows
- Light Shelves/Overhangs
- ENERGY STAR Appliances
- ENERGY STAR Exhaust Fans
- ENERGY STAR Light Fixtures
- Variable Refrigerant Flow Heat Pump System (Similar to EER 11)
- Heat Pump Tankless Water Heaters
- All ducts in conditioned space
- Insulated hot water pipes

**Materials and Resources**

The exterior shell of this building is made off ICF (insulated concrete forms). The contractor coordinated the modular layout of the buildings to have almost no waste in the exterior wall system. Finger jointed studs (engineered studs from the waste of the manufacturing industry) were used to frame the interior walls. The concrete in the walls and footings had a 30% flyash content (recycled material from our coal-fired electric plant). The insulation and numerous other materials had recycled content. Low VOC (volatile organic compounds) paint, adhesive and sealants, and insulation were used to promote indoor air quality and better health. These are just some of the environmentally appropriate building products.

**Indoor Environmental Quality**

People in America spend on average 90% of their time indoors in unhealthy environments full of pollutants. Many Americans are just starting to understand the connection between their living environment and their health. A much better quality indoor air quality was very important in this project because people who live in affordable housing projects do not have disposable income for medical bills.

Every unit has carbon monoxide monitors, continuous low volume ventilation to bring in fresh air, occupancy sensors in the bathrooms to get rid of unwanted humidity, and MERV 10 air filters in the air handlers.

**Awareness and Education**

The developer and property manager have educated and have plans to educate future residents on the community's green features. Both operational and maintenance information is taught at these trainings in an effort to teach the tenants their role in keeping this project green with special attention to both water and energy efficiency.

**About USGBC**

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 more than 14,500 member companies and organizations, a comprehensive family of LEED® green building rating systems, an expansive educational offering, the industry's popular Greenbuild International Conference and Expo (www.greenbuildexpo.org), and a network of 77 local chapters, affiliates, and organizing groups. For more information, visit www.usgbc.org.

**About LEED® for Homes**

LEED® for Homes is a third-party certification system for high-performance green homes. Developed and administered by USGBC, LEED for Homes awards points to projects in seven categories of environmental performance: Location & Linkages, Sustainable Sites, Water Efficiency, Indoor Environmental Quality, Energy & Atmosphere, Homeowner Awareness, and Innovation and Design. To date, more than 14,000 homes have been LEED-certified, and over 35,000 have been registered and are under development. For more information, visit www.thegreenhomeguide.org.