



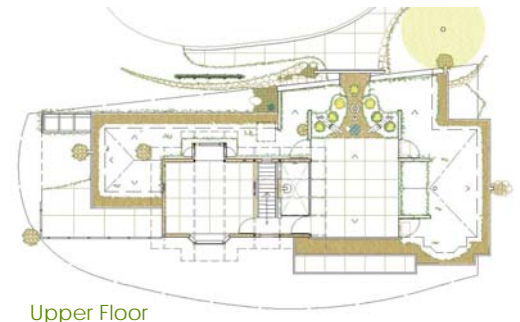
Visit www.greentara.com for more information and a walk thru animation

FIRST GREENNESS HOUSE DESIGN Edmonds, WA

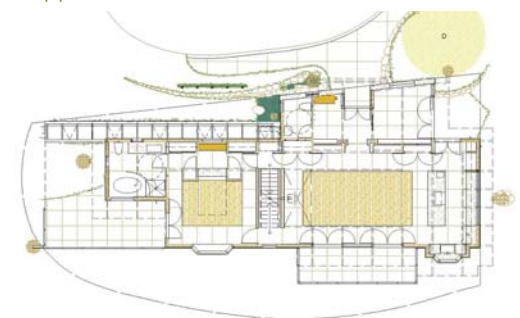
Before adding an active solar, wind or geothermal system, Greenness' first house design is expected to save 40% of the space heating and 45% of the water heating required by a conventionally designed house built to comply with the State's current energy code. This is particularly noteworthy given the project's many large, west facing view windows. Designed by Phillip Lehn for a working couple that entertain frequent guests and wish to perform much of their work at home and two young brothers that the couple had hoped to adopt, the design aspires to minimize its environmental costs by its rational economy of means, conservation of resources, and use of non-toxic and renewable materials. While the couple ultimately decided not to proceed with the project's construction, a complete set of construction documents have been prepared and its building permit has been approved. It was selected by the American Institute of Architects Seattle for their annual "What Makes it Green?" program, and it contributes to the research and development of the following design concepts and building materials that could be used for more popularly affordable homes and communities.

GREEN FEATURES

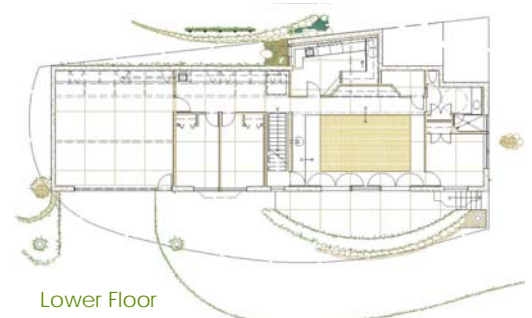
1. Passive solar heating: heat storage walls and tanks, stair ducts, reversible ceiling fans, "solar chimneys", and operable windows to induce and convey passive heating, cooling and cross ventilation,
2. "Green" or vegetated roofs,
3. Spaces and structural members sized appropriate to their use,
4. Extensive use of natural, fluorescent, compact fluorescent, and low voltage lighting,
5. Maximum effective thermal insulation,
6. Advanced framing insulated with recycled cellulose,
7. Movable insulation to cover windows and skylights at night.
8. Tighter construction to minimize infiltration,
9. Rastra insulated concrete walls with stucco finish
10. Extensive use of rapidly renewable bamboo for rain screen siding, shelving, cabinets, doors, stair treads, trim, and flooring,
11. Hydronic radiant floors of concrete, bamboo, and cork,
12. Heat recovery and ventilation systems with HEPA filters to recover 50% of heat from exhausted air
13. Waste water heat recovery system,
14. High efficiency boilers (90%+),
15. Certified "Energy Star" appliances,
16. Low flow water fixtures,
17. Extensive use of natural, less processed interior materials with benign finishes,
18. Extensive use of engineered wood products,
19. Multiple use spaces,
20. Barrier free accessibility throughout house,
21. Forest Stewardship Council (FSC) certified wood products whenever possible,
22. Drought tolerant landscaping, and
23. Partially earth sheltered to reduce exposure,



Upper Floor



Main Floor



Lower Floor



LEHN DESIGN COLLABORATIVE
ARCHITECTURE INTERIORS LANDSCAPING PLANNING

Current Work









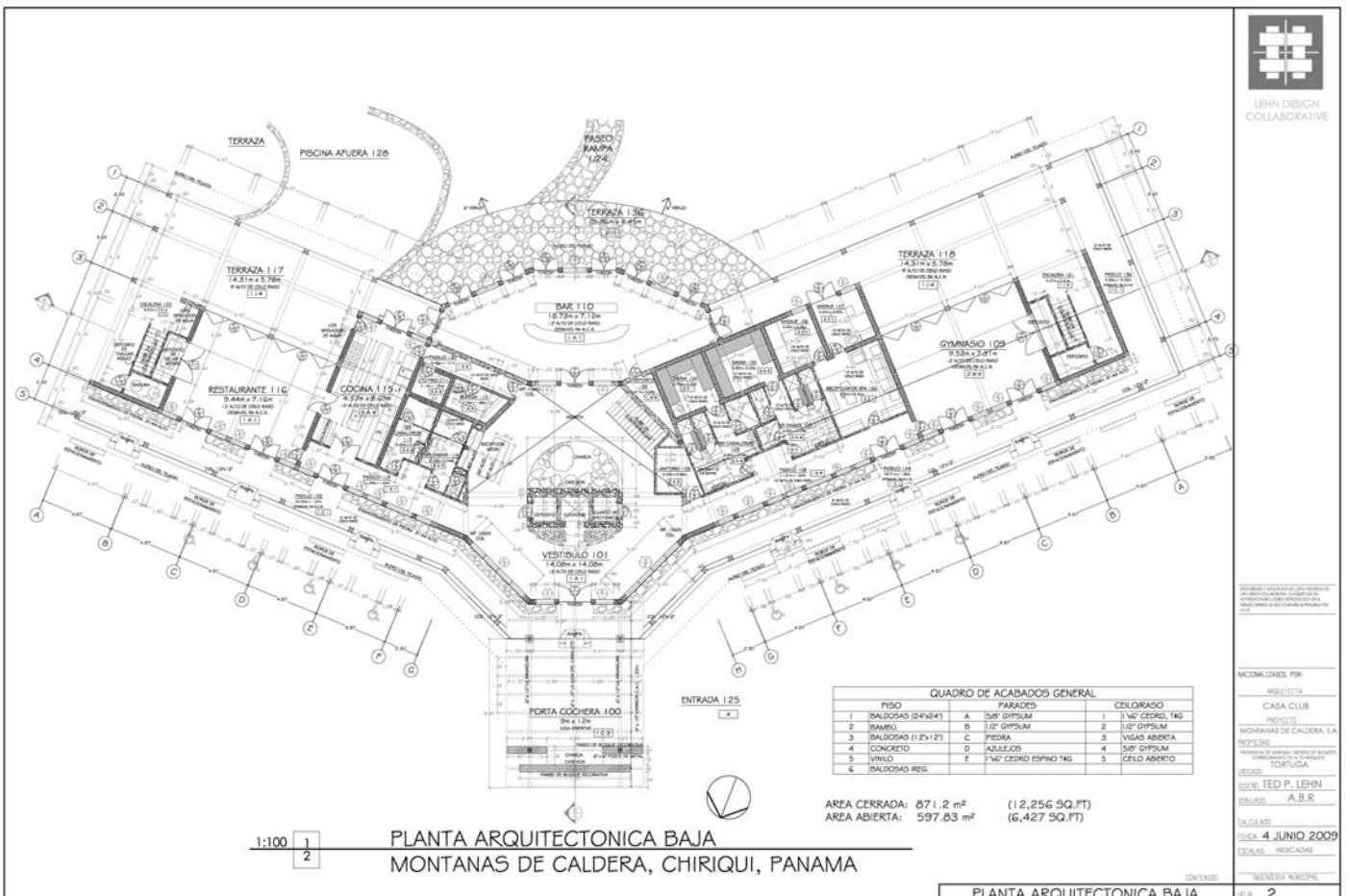


MONTANAS DE CALDERA
CLUBHOUSE

Chiriqui, Republic of Panama

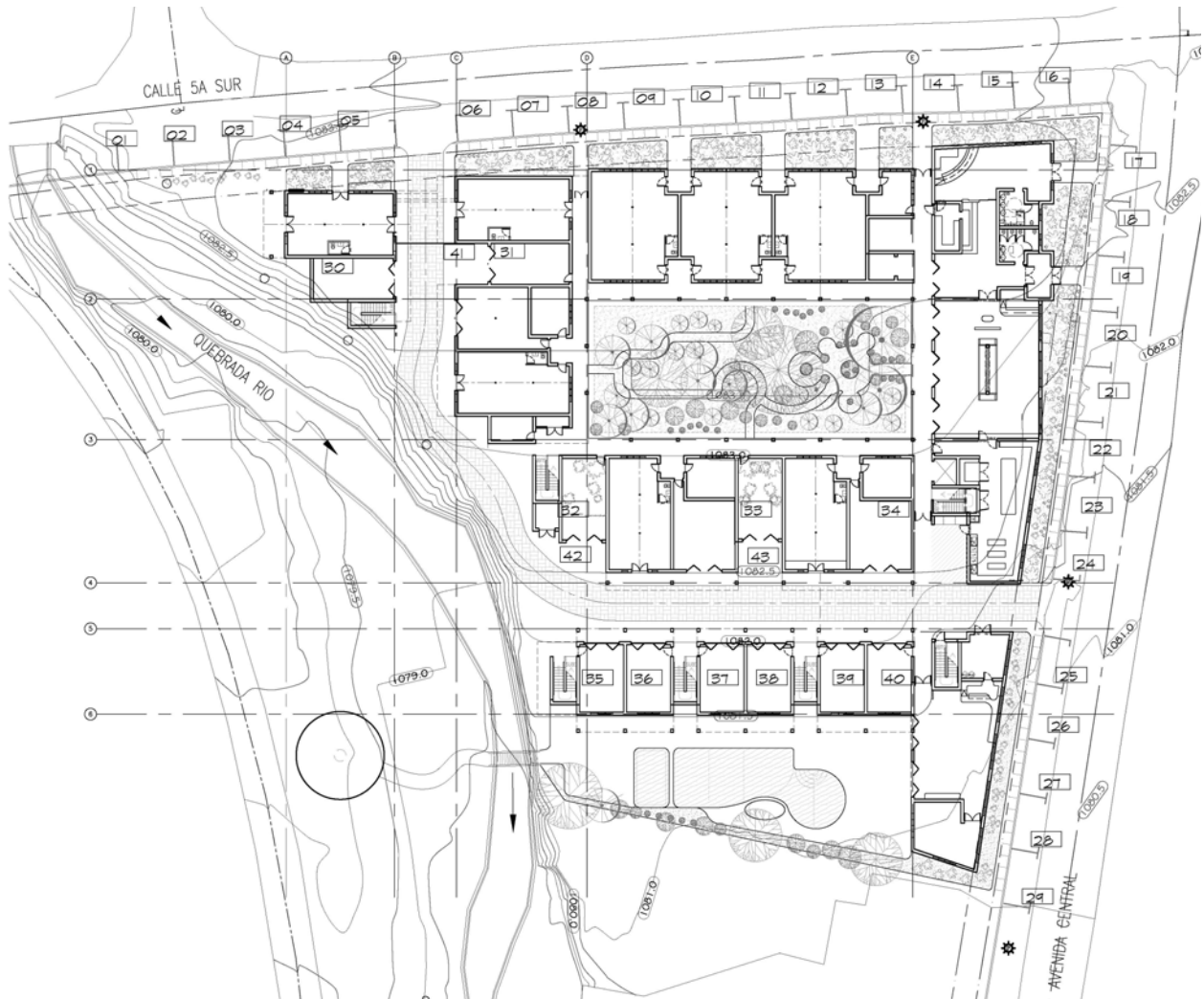


Montanas De Caldera is a two phase planned residential community of ultimately 550 single family dwellings located near Chiriqui between Boquete and David. Designed by Ted Lehn, the first phase Clubhouse and subsequent neighborhood shopping bazaar to be located across the street will define the community's cultural center and become a destination from and gateway to the continuous ribbon of lush garden open spaces interconnecting residences throughout the development. The clubhouse will feature a garden restaurant and bar, an indoor / outdoor swimming pool and hot tub, health spa / exercise facility, lecture hall / activity center and view pavilion. The project will also feature several resource conserving ideas that are relatively new to Panama including: an air to air heat exchanger, solar hot water collection and storage, and a significantly better insulated thermal envelope.





SANTA LUCIA
Boquete, Republic of Panama



Santa Lucia is a five square block mixed-use complex of seven, three story buildings enclosing a large garden courtyard along the banks of the Quebrada River near the center of Boquete. Designed by Ted Lehn, the complex includes 14 commercial retail spaces, 20 two and three story residential condominiums with private garages, a garden restaurant and bar, walking trails, a view pavilion, and a swimming pool.



LEHN DESIGN COLLABORATIVE
ARCHITECTURE INTERIORS LANDSCAPING PLANNING

Current
Contract Work

AMAVI CELLARS

New Tasting Room and Case Goods Storage Building
Walla Walla, WA

CLINKSTON BRUNNER ARCHITECTS

David Clinkston AIA, Principal
Seattle, WA



Phillip Lehn provided contract assistance to David Clinkston with his design development and preparation of construction documents.