

Courtyard Sketch

Urban Concepts

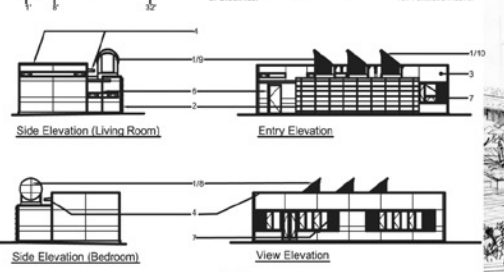
Parcel "A" - Bahia Drive - Passive Site: Designed open space connected to rest of area via trails; fitted with 44 tracking PV panels, hooked into the grid to offset energy use at the Active Site.

Parcel "B" - Misty Road - Active Site: Compact housing - as if it were part of the site from the beginning of time; a geographic "high-rise" - all cars remain at the bottom of the hill ("community interface" access to the plazas or "floors") is via an electric tram and staircases that meander from one public space to another; the plazas are public gathering areas with fountains, shade trees, gardens (herb, flower and vegetable), bio-swales, benches etc... units are grouped into informal blocks dictated by topography with semi-private courtyards, planted with fruit trees, gardens, terraces and shared garden sheds, district heating, common wall construction; a large freshwater tank, whose roof serves as a belvedere, is located at the top of the development with sweeping views and the opportunity to gravity feed the units (water is pumped up the hill via pumps located in the district mechanical rooms).

Community Interface: A small community center with parking (covered by a public tennis court), shops, vehicle turn around, colonnade and access to the site via the staircases and electric tram; at the top of the site beyond the reservoir access to the open space via trails; the housing area proper is bounded by gardens; a 25' minimum densely planted setback separates the development from the neighboring single-family neighborhoods.

Typical Elevations

Based on one bedroom with "light" entry



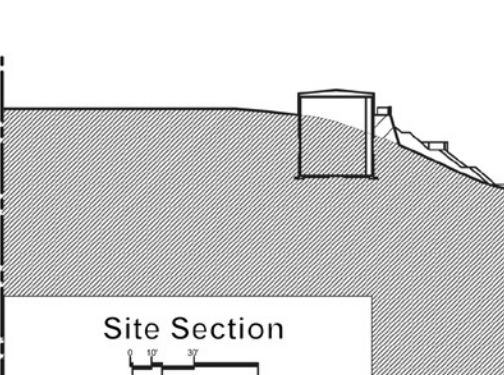
Side Elevation (Living Room) Entry Elevation

Side Elevation (Bedroom) View Elevation

Materials Legend

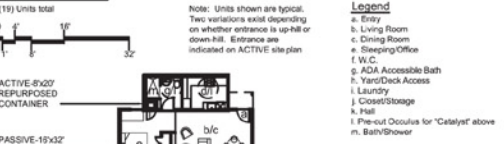
- Catalyst
- Green wall on container over hard-panel
- Hard Panel
- Metal coping/steps/couplers/bumpouts
- Green roof
- Column/ceiling to system
- Rolling staircases
- Solar panel
- Closet/dresser
- Ventilation louver

Typical Section - Living Room/Kitchen



Typical Section - Living Room/Kitchen

Plaza Sketch



Plaza Sketch

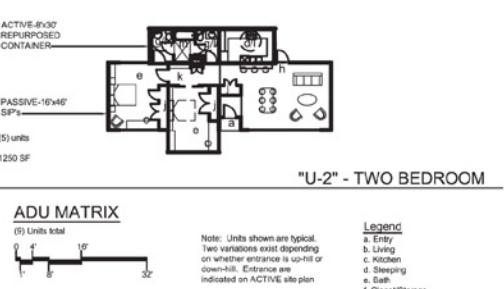
Preliminary Budgets

Budget: Per number and size of units		Initial Budget Review	
Parcel Description	Units Description - Type, Size, & Sq. Ft.	Total # of Units	Total Affordable
Parcel A: Bahia Drive - passive site (no units): 6.8 acres; to have solar arrays to sell to grid. Edible gardens and forests with well and reverse osmosis filter. Maintain and bolster natural habitat	Studio: 4	728	2,912
Parcel B: Misty Road - active site (built-out): 8.7 acres	One bedroom: 10	6	1,080
	Two bedroom: 6	2,220	6,200
	Total - Units	19	10,192
	ADU's (accessory dwelling units):		
	4 small: 4	354	1,416
	2 medium: 2	536	1,072
	1 large: 1	592	1,184
	Total - ADU's	7	4,080
	Total of all Units & ADU's	26	14,272

Budget per Calif. Sr. Housing Project Cost Guidelines

Description	\$/Sf	Housing Project Cost Guidelines	Budget @ Min. Experience Rate	Budget @ Max. Experience Rate
Range for "Perimeter Const. Costs" - Per Calif. Sr. Housing guidelines	\$80.00	\$130.00	\$1,940,000	\$3,152,500
Budget - total "Perimeter Const. Costs" - per guidelines				
Range for "Overall Project Costs" - Per Calif. Sr. Housing Guidelines	\$200.00	\$300.00	\$2,910,000	\$4,122,500
Budget - Sitework / Utilities / Other Imp. (default)			\$2,910,000	\$4,122,500
Budget - total "Overall Project Costs" - per guidelines			\$4,850,000	\$7,275,000

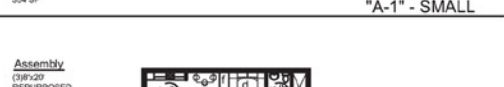
Site Section



Site Section

UNIT MATRIX

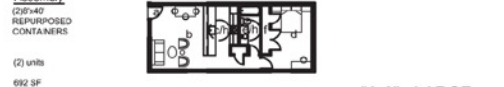
(13) Units total
Note: Units shown are typical. Two variations exist depending on whether entrance is up-hill or down-hill. Entrance are indicated on ACTIVE site plan



"U-S" - STUDIO



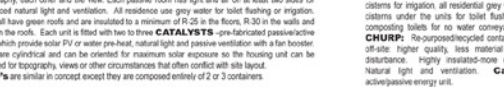
"U-1" - ONE BEDROOM



"U-2" - TWO BEDROOM



"A-1" - SMALL



"A-2" - MEDIUM

ADU MATRIX

(5) Units total
Note: Units shown are typical. Two variations exist depending on whether entrance is up-hill or down-hill. Entrance are indicated on ACTIVE site plan

"A-1" - SMALL

"A-2" - MEDIUM

"A-3" - LARGE

Unit Concepts - S-CHURP® - Sustainable Customizable Hybridized Units - Repurposed & Pre-Fabricated:

Units are composed of an ACTIVE component mechanically and hydraulically intensive uses Bathrooms, Kitchens, laundry, active ventilation etc... housed in re-purposed steel shipping containers that are modified and fitted on-site. The PASSIVE components are all the living spaces: living/dining areas, bedrooms, hallways, storage etc... composed of pre-fabricated SIPs and shipped flat to site to be assembled, connected and finished on site on grade with conventional footings. The units are CUSTOMIZABLE depending on their relationship to topography, each other and the view. Each passive room has light and air on at least two sides for enhanced natural light and ventilation. All residences use grey water for toilet flushing or irrigation. They all have green roofs and are insulated to a minimum of R-25 in the floors, R-30 in the walls and R-40 in the roofs. Each unit is fitted with two to three CATALYSTS - one-fabricated passive/active-caps which provide solar PV or water pre-heat, natural light and passive ventilation with a fan booster. They are cylindrical and can be oriented for maximum solar exposure so the housing unit can be oriented for topography, view or other circumstances that often conflict with site layout. ADU's are similar in concept except they are composed entirely of 2 or 3 containers. Catalyst flexible active/passive energy unit.

Sustainability Concepts - Compact Housing:

Reduced energy use, mitigated site disturbance, rolling down the site, greater social interaction, improved walking, less/no impervious surface and trail run-off. CAR-FREE: Minimized car use, minimized infrastructure required to maintain vehicles, improved physical activity/improved walking, reduced vehicular noise and air quality impact. RE-CYCLED WATER: Integrated grey water use - All surfaces mitigate storm water and direct to underground systems for irrigation, all residential grey water is directed to cisterns under the units for toilet flushing (alternative is composting toilets for no water conveyance off site). S-CHURP®: Re-purposed/recycled containers; pre-fabricated off-site; higher quality, less material waste, less site disturbance, highly insulated, more efficient envelope, Natural light and ventilation. Catalyst flexible active/passive energy unit.

Community Interface Plan

Community Interface Plan

Active Site Plan

Active Site Plan

LEGEND:

UNIT ENTRY: ▲
UNIT MATRIX: U-S Studio; U-1 One Bed Room; U-2 Two Bed Rooms; A-1 Small ADU; A-2 Medium ADU; A-3 Large ADU
PUBLIC DISTRIBUTION: 1 Vehicle Turn Around; 2 Underground Parking; 3 Van Parking; 4 Electric Tram; 5 Train Station; 6 Elevator; 7 Stairs; 8 Plaza
OTHERS: 9 Private Garden; 10 Courtyard; 11 Vegetable Garden; 12 Bio-swale; 13 Tennis Court; 14 Storage/Mechanical Room; 15 Community Center and Shops; 16 Porch; 17 Skylight; 18 Re-vegetation with Indigenous Species

Unit Assembly

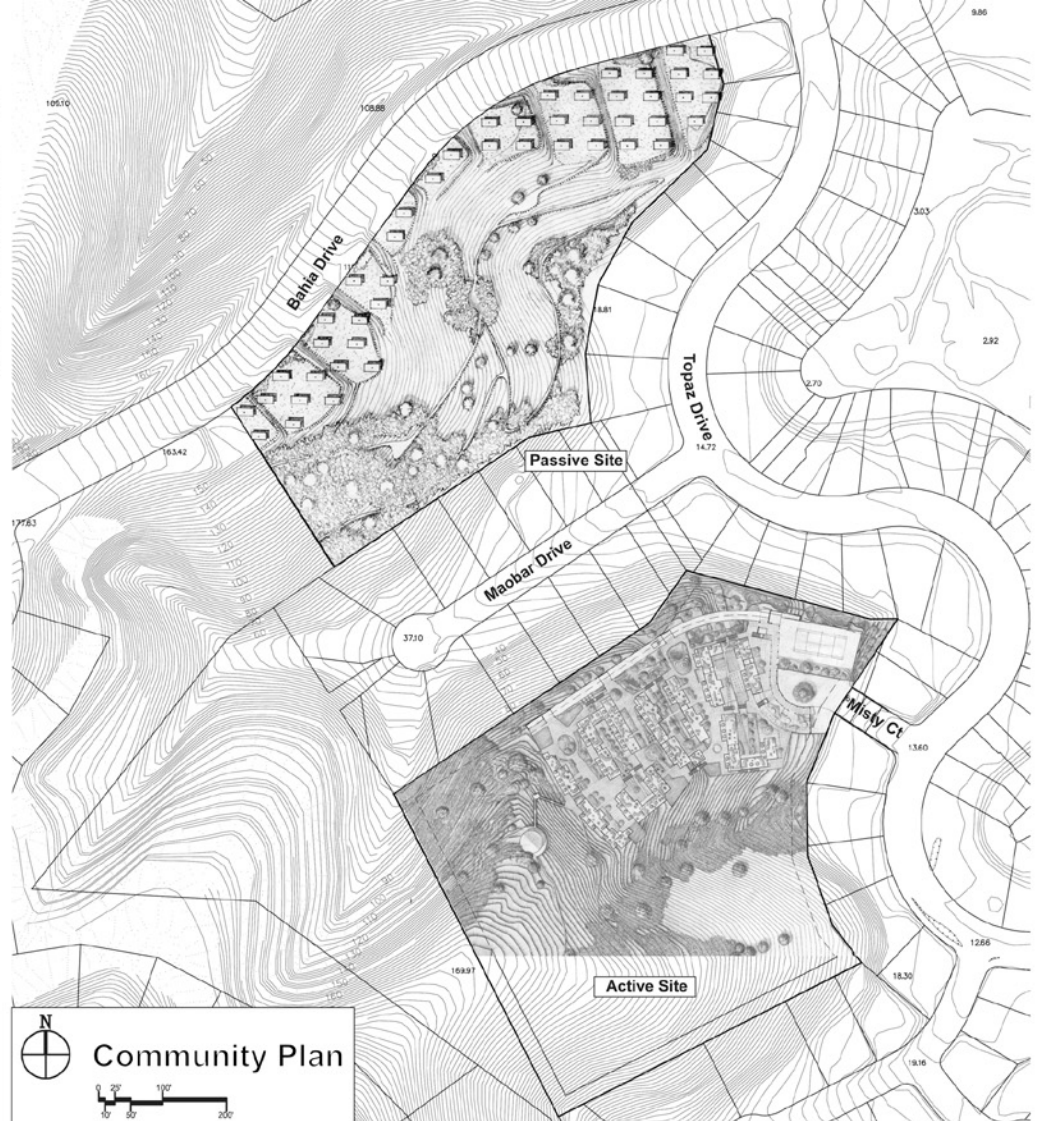
Unit Assembly

Container Re-purposing

Container Re-purposing

Catalyst

Catalyst



Community Plan

TOP 185

185 Bottom