



Our project strategy attempts to be both forward-looking while maintaining respect for the size, scale and use of the existing Bahia community. This use of the car as the only means of movement in and around the community. Our project attempts to subject a culture of individual and community agriculture with a focus on locally grown, organic produce.

Given the intensity of the existing community, we focus to rely primarily on a detached single-family type development model as the best practice for the site, scale and character of the existing neighborhood.

Our project envisions a near-zero carbon community that respects the land, environment and chooses to develop and enhance local culture. The major components of our proposal are:

- A single-family development utilizing the existing paths and grading.
- An urban design that seeks to organize and orient the varied project components.
- A community center with a community room, convenience market and marketplace void.
- A community center with photovoltaic panels for on-site power generation.
- Community garden areas that fit into and support greater usage of the site.
- Grey water treatment ponds that allow water for shared (community) irrigation.
- A secondary transportation network that links the sites, community spaces and houses via a walking, biking and small electric vehicle path.
- Modular panel buildings that utilize both precast and site building technology.
- Each residence has a small herb/vegetable garden.
- Each residence has a rainwater catchment basin to capture water for individual irrigation.

The public/community components are located at the entry of the neighborhood at the top of Bahia and focus on providing three uses: Convenience store with cafe and coffee house-like amenities, an open community room and exterior marketplace void.

Planning Strategy: Connect earth and sky.

Our planning strategy utilizes the existing terraced lots both for cost effectiveness and because each of these sites has great access to views while maintaining individual privacy. The existing path layout supports a detached single-family development that respects the culture, architecture and context of the existing neighborhood.

The overall design concept is about developing an ordering geometry from the existing varied site conditions. This becomes a direct reflection of the topography, as are the existing street grids. This geometry then relates across the hillside to become an organizer of the architectural prefabricated "base" elements as well as the paths, community gardens, ponds and other architectural features. The building strategy then allows the more flexible, site-built architectural components to respond to the solar orientation, views and open spaces.

In this way the design strategy deals with mitigating the relationship between earth and sky. The architecture then is both anchored and connected to the earth while reaching forward.

Architectural strategy:

The architectural strategy attempts to utilize the best features of both modular or precast style construction and conventional site-built construction.

Woven into this strategy is a network of paths that link together all of the components of the design including the individual houses, community spaces, and both sites. This plan then proposes two means of movement: traditional vehicle traffic along Bahia Drive, Topaz Drive and Misty Court and a secondary path that runs along the back of the individual houses. The pathway links both parcels together and connects to the shared community gardens and community center. This is intended to de-emphasize the traditional roadway and allow safe access via walking, biking and small electric vehicles to all portions of the development.

The pathway also allows the houses along Bahia to orient away from the somewhat busy street and toward the shared community spaces. The path has two bridges that link the parcels of this project as well as the southern portion of the community to Bahia Drive. The hope is that over time, this network would be intended to make a greater linkage into the Bahia community and allow greater opportunities for recreation, utility and movement.

This project proposes a community center located at the top of Bahia Dr. The community center has three main parts: Convenience store/cafe, community room and exterior marketplace void.

The marketplace void is essentially an open plan "bridge" element that links Bahia Drive with the landscape, extending out into the trees. The bridge is an open platform with some minimal program including shading elements, space for tables, chairs and counters. This open void will function as an outdoor patios/patio space associated with the convenience store, an outdoor event space associated with the community room and a community supported agriculture (CSA) market that could operate once a week to trade both site grown produce and vegetables by local farms or farm-share type produce boxes. The bridge form allows usage and views of the community gardens, ponds and overall development and will accept excellent views to the south and west.

There are no single-use components to the shared community portions of the project, each space supports multiple functions and activities. This built-in flexibility allows its use to grow and evolve to suit the changing needs of the community. The community center has 12 parking spaces including the two required ADA spaces.

Our design proposes utilizing an on-site grey water system to reclaim 80-90% of the household water for use for irrigation of community facilities including the community garden spaces carved along the hillside. This system diverts domestic water from wash and laundry drainage to a collection of ponds adjacent to the community gardens. The ponds would allow minor treatment of the water with mechanical and bio-based (plants and fish) systems to make it suitable for use for irrigation.

Our design attempts to address the shortcoming of modern precast construction, namely, high cost and lack of flexibility that results in an inability to take full advantage of a site's individual features. Our approach proposes using factory made prefabricated panels in four and eight foot modules. Modules can be solid or include a combination of window/door systems and could be SIP (Structural Insulated Panels) or convention construction. The modules offer the benefit of standardized production with the flexibility to be configured to solve functional requirements of a variety of designs, types, configurations and site geometry.

In each of our buildings, the roof element is separated from the main building by a clerestory. This allows the roof to respond to the best possible orientation and take advantage of each site's available access to view, light, air and orientation. For roof-mounted photovoltaic system, the clerestory windows allow light-filled high volume spaces on the interior. Given their simplicity, the roofs would be built with conventional site construction using standard available precast concrete. Roof lateral structure would be handled with repetitive brace frame elements that become a feature within each individual house. The roof's "butterfly" shape allows concentrated drainage into the individual on-site systems for irrigation.

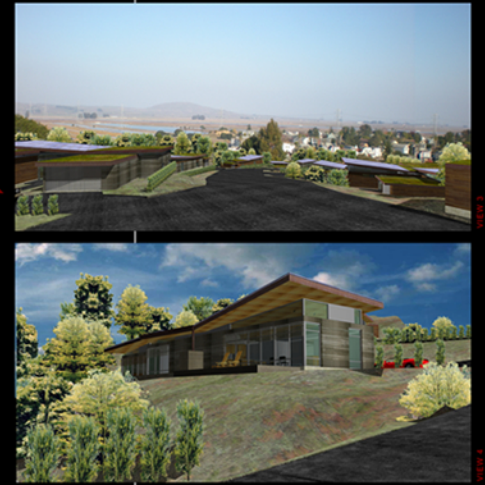
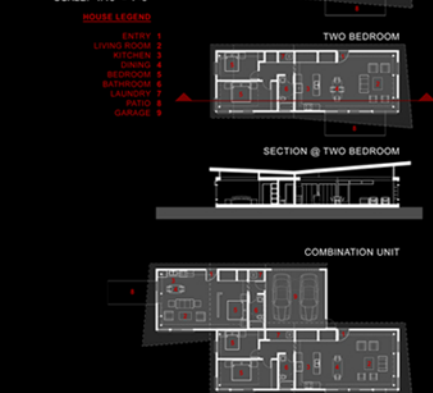
The modular wall system and more flexible roof system would be set on conventional site or grade foundations on the existing level pads. The use of modular jigs related to the modular construction elements could be utilized to rapidly set the foundation anchor bolts, plumbing and electrical.

The exterior finishes are intended to be a combination of natural materials, exposed concrete, aluminum, glass and locally available Western Red Cedar. The cedar siding is intended to be installed as a rain screen, separated above the waterproofing layer and can be stained for a pre-weathered or a distressed natural wood appearance. The roofs are a combination of steeper, sloped to the south, trapezoidal planes covered in photovoltaic panels, and lower sloped planes covered in low maintenance living (green) roof materials.

COMMUNITY PLAN / PARCEL SITE PLAN
SCALE: 1" = 50'-0"



TYPICAL PLANS
SCALE: 1/16" = 1'-0"



NOVA 19
Novato Senior Housing
California Senior Housing Design Competition
Suburban Alternatives Land Trust
Northbay Family Homes