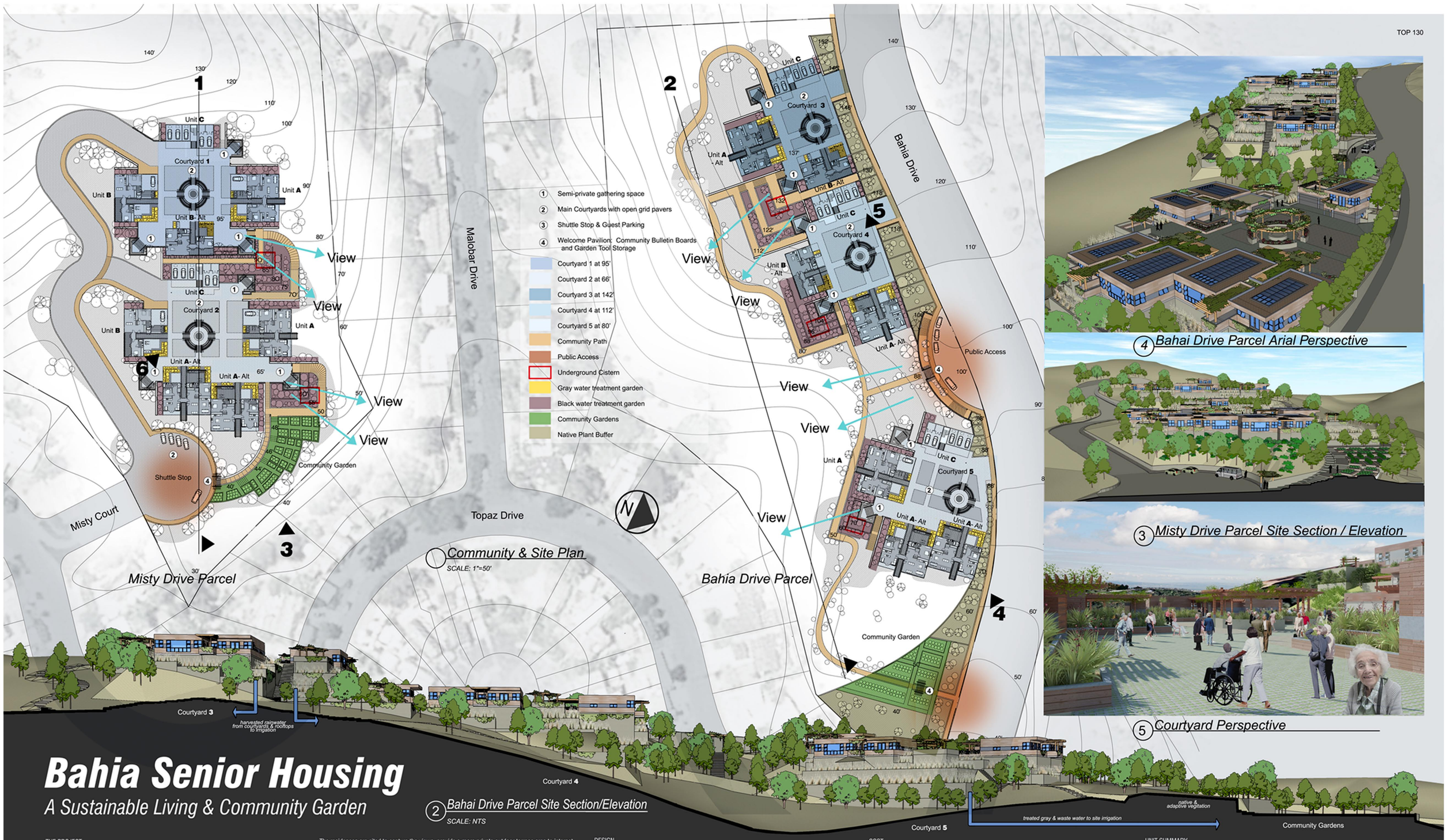


1. Semi-private gathering space
2. Main Courtyards with open grid pavers
3. Shuttle Stop & Guest Parking
4. Welcome Pavilion: Community Bulletin Boards and Garden Tool Storage

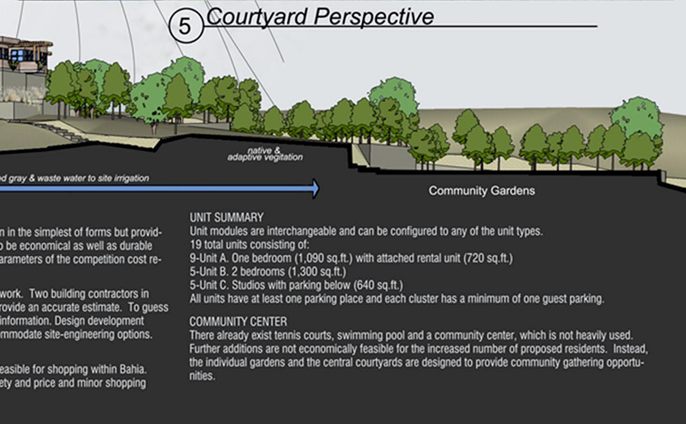
- Courtyard 1 at 95'
- Courtyard 2 at 66'
- Courtyard 3 at 142'
- Courtyard 4 at 112'
- Courtyard 5 at 80'
- Community Path
- Public Access
- Underground Cistern
- Gray water treatment garden
- Black water treatment garden
- Community Gardens
- Native Plant Buffer

(1) Community & Site Plan
SCALE: 1"=50'

(2) Bahai Drive Parcel Site Section/Elevation
SCALE: NTS

(4) Bahai Drive Parcel Arial Perspective

(3) Misty Drive Parcel Site Section / Elevation



(5) Courtyard Perspective

Bahia Senior Housing

A Sustainable Living & Community Garden

THE PROJECT

PLANNING
This design is about the interconnection of people, gardens, and the natural terrain. As a response to accessibility, security, gardens, views and the overall desire to keep as much open space as possible, the proposed concept groups clusters of four to five residential units into mini-communities offering a variety of spatial types and square footages on a level platform. The design integrated the changing terrain of the hillsides with the requirements of the competition.

CLUSTERS
Residential units are arranged in a courtyard configuration within each cluster. As primarily a senior residential complex, the clusters provide both a sense of privacy and neighbor contact as well as the security of not having an isolated residence served by a single driveway. Each garage is accessed through the shared courtyard. Interaction develops using the center arbor and rainwater fountain for sitting, playing cards or table games that invite neighbors as participants. These arbors are planted with climbing vines to create a covered green canopy.

The residences are sited to capture the views, provide a more private outdoor terrace area to interact with the neighbors. Each cluster has a mixture of the principal unit types requested by the program. The clusters provide level areas of outdoor living and walking within a hillside environment. Paving areas are porous materials delineated for color and path divisions throughout all the clusters.

PATHS
Even with ever changing elevations throughout both sites, all of the clusters are interwoven with connecting paths, stairs and ramps. Although each is its own enclave, there is a physical connection to emphasize the community aspect of reaching one another.

GARDENS
Within each cluster are designated areas of gardening belonging to each unit. The garden areas invite individual cultivation as well as a variety of expressions. Elevation changes requiring walls become vertical gardens with perforated concrete walls planted with climbing landscaping. In addition to the private gardens are community gardens located adjacent to Bahia Community that is both welcoming and serves as a community gathering space.

DESIGN
All of the units are single story on the same level as parking except Unit C, the studios. The studios are single story over parking integrating the mixture of low income and senior residential. Ambulatory owners walk up to their unit while the rest of the court residents are on one level.

The units are designed to have prefabricated wall panels and are designed on a simple module. This module allows second units or second bedrooms. The panels are sustainable horizontal stained wood. The band between the panels is recycled metal that holds all the window openings on three sides except the front façade, which has a larger glass area.

ENERGY
All units have skylights to provide more natural light and less dependence on electrical lighting. Each unit has solar panels calibrated to provide more than fifty percent of required electrical needs. Solar water heaters are located on the roof. A high reflectant roof membrane and trellises near windows reduces excessive heat gain. Furthermore, tile floors provide good indoor air quality as well as to reduce summer heat gain. All glazing is low E dual pane glass. The windows are placed to provide natural ventilation.

COST
The design of the units utilizes prefabricated panelized construction in the simplest of forms but providing spatial room within. The windows and finishes are designed to be economical as well as durable and long lasting. Above the ground, the units fall well within the parameters of the competition cost requirements.

To provide the courts on a hillside environment increases the site work. Two building contractors in Marin County required further foundation and soil information to provide an accurate estimate. To guess is not accurate so no overall cost can be provided without further information. Design development would refine the actual costs as well as allow for redesign to accommodate site-engineering options.

COMMERCIAL
Retail analysis suggested present economic conditions were not feasible for shopping within Bahia. Residents interviewed preferred shopping at larger venues for variety and price and minor shopping would not sustain a small local business.

UNIT SUMMARY
Unit modules are interchangeable and can be configured to any of the unit types.
19 total units consisting of:
9-Unit A. One bedroom (1,090 sq.ft.) with attached rental unit (720 sq.ft.)
5-Unit B. 2 bedrooms (1,300 sq.ft.)
5-Unit C. Studios with parking below (640 sq.ft.)
All units have at least one parking place and each cluster has a minimum of one guest parking.

COMMUNITY CENTER
There already exist tennis courts, swimming pool and a community center, which is not heavily used. Further additions are not economically feasible for the increased number of proposed residents. Instead, the individual gardens and the central courtyards are designed to provide community gathering opportunities.

- (A) open grid pavers with permeable concrete
- (B) prefered parking for low emmision vehicles
- (C) energy efficient appliances
- (D) covered bike parking: each unit provided with 2 bikes for site interaction
- (E) high efficient building envelope
- (F) recycling & compost stations
- (G) pre-fabricated wall panels from sustainable source
- (H) open roof to reduce heat island effect
- (I) captured rainwater & gray water filtration & treatment gardens
- (J) blackwater filtration & treatment gardens
- (K) underground cistern for recycled rain and gray water
- (L) native & adaptable vegitation with drip irrigation
- (M) community path through gardens
- (N) center courtyard: public gathering spot for community
- (O) corner courtyards: semi-private gathering spot for residents

SUSTAINABILITY
The following items are part of the effort for LEED certification and are included in the design of the project.

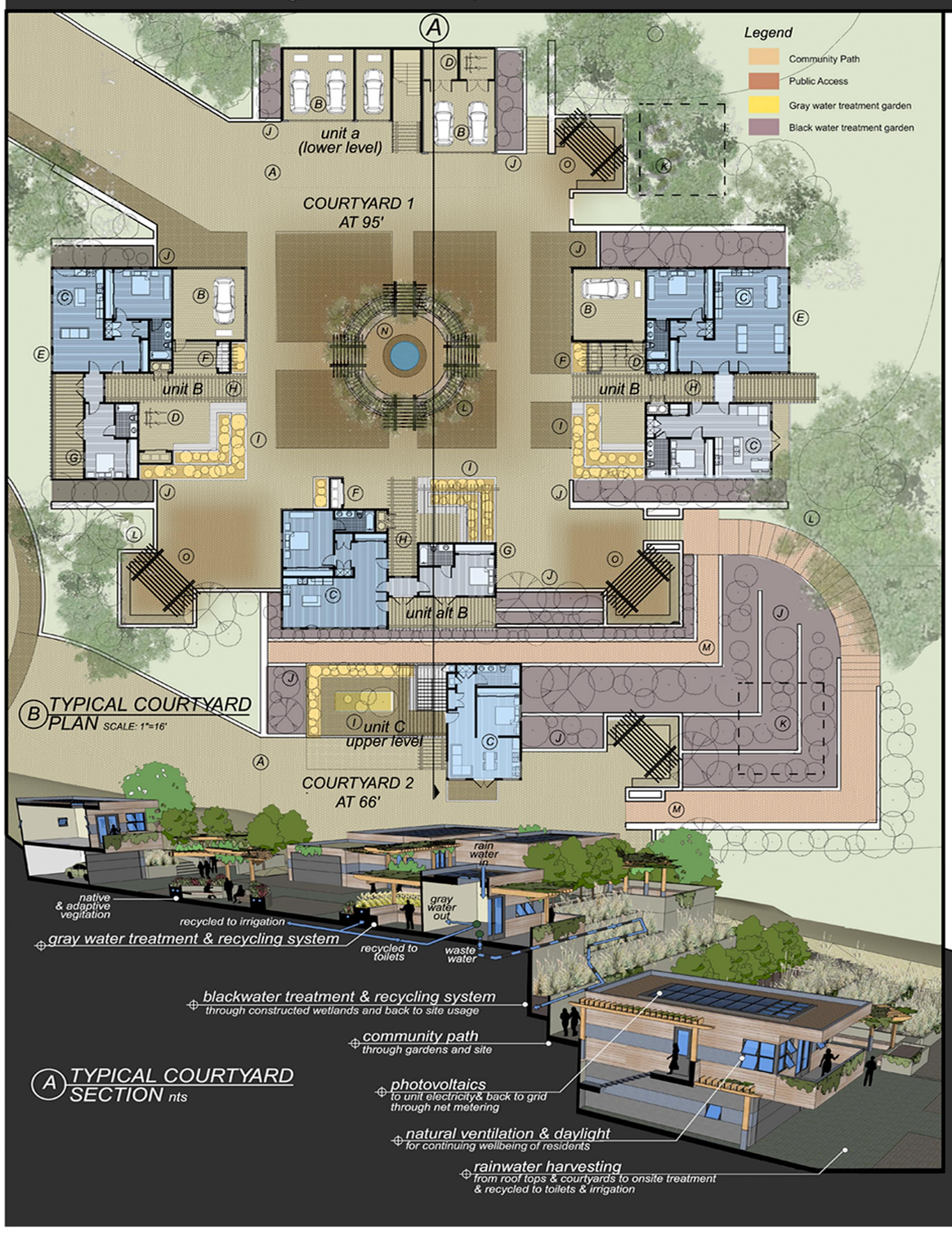
Site Sustainability
- Storm water management, which collects and redistributes to the landscaping & gardens
- Open grid pavement with perforated pavers to increase on site infiltration
- Covered and designated bike parking
- Shuttle stop to supporting communities
- Electric outlets at all parking for electric/hybrid vehicles
- Limit size of development to retain more open space and footpaths
- Green or reflective roof to reduce heat island effect
- Rain gardens

Water Efficiency
- Efficient irrigation using captured rainwater and recycled waste water
- Native adaptable plants
- Water efficient fixtures including toilets, shower, dishwashers, washers/dryers

Energy and Atmosphere
- Energy efficient building envelope, HVAC and lighting
- Zero CFC based refrigerants
- On site renewables using solar panels with net metering

Materials and Resources
- Recycled content
- Regional materials
- Rapidly renewable materials
- Certified Wood

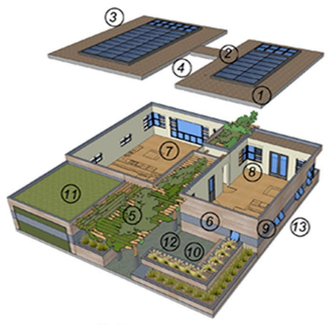
Indoor Environmental Quality
- Increased natural ventilation and larger glass areas for sunlight
- Low emission materials and adhesives
- Controllable lights



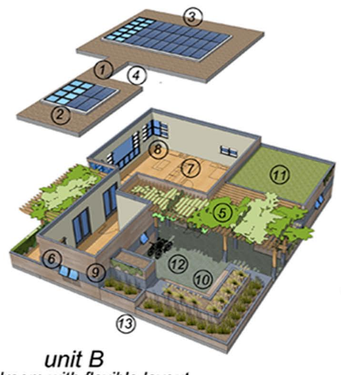
(B) TYPICAL COURTYARD PLAN SCALE: 1"=16'

(A) TYPICAL COURTYARD SECTION nts

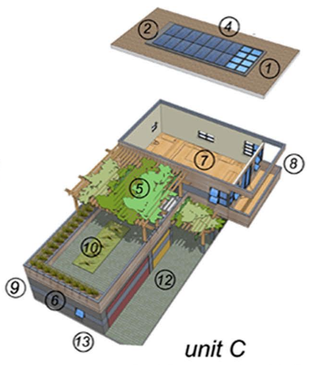
1. rain water collection
2. solar panel & skylights
3. solar water heater
4. high reflectant roof membrane
5. trellis for shading
6. prefabricated wall panels
7. sustainable wood floor
8. operable windows with low E glass
9. recycled metal clad wall panel
10. gray water garden
11. green roof wl native drought resistant plants
12. open grid paving
13. slab edge insulation



unit A
1 bedroom with attached 2nd unit (1090 s.f. + 720 s.f.=1810 total s.f. available as unit alt- A without attached garage

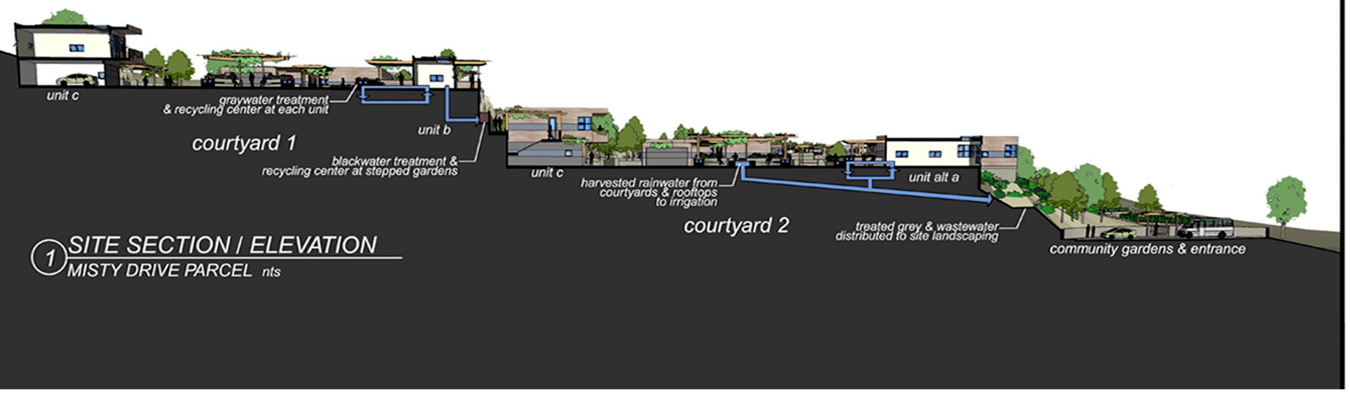


unit B
2 bedroom with flexible layout 1300 s.f. total available as unit alt- B without attached garage



unit C
2nd floor studio with 5 site parking spots 640 s.f. total

(6) COURTYARD PERSPECTIVE



(1) SITE SECTION / ELEVATION
MISTY DRIVE PARCEL nts