

December, 1998

ISLAND COHOUSING SITE AND BUILDING DESIGN OBJECTIVES AND PATTERNS

This is the integrated verbal expression of how the physical community at Island Cohousing was designed and is intended to serve as a set of guidelines for how the Community changes over time. The idea is to, as much as possible, to stick to these concepts - not slavishly, but intentionally, so that if we change any of these concepts we can understand that we are doing so and the effects of the change(s).

The objectives are in four sections:

- Form and Voice;
- Energy and Resources.
- Economy and Adaptability;
- Community.

The objectives are underlined. Brief discussions follow. Associated design patterns are **boldface**.

• FORM AND VOICE.

1) Development activity should fit the site and promote diversity.

The building locations should respect and benefit from native plantings and existing land forms. Buildings should have good sun access. There should be variety and choice in house locations.

Therefore: **a. String houses along a north-south circulation spine.**

b. Use the "Houses on a Street" pattern as the basic community layout, modified to fit specific site features.

c. Stagger the houses as dictated by existing trees and land forms, and to optimize solar access for all houses.

d. Build on the plateau to minimize site disturbance, provide better access, improve communication, and simplify construction.

e. Retain sufficient existing trees in the development zone to shade buildings and screen and shelter outdoor living spaces.

f. Plan diverse house locations - varied exposures, distances from Common House and parking, and degrees of community connection.

2) Maximize Open Space.

The Open Space should encourage a diverse mix of appropriate uses and habitats, and should be planned and managed to balance the landscape of the entire site.

Therefore: **a. Leave the hilly upland areas undisturbed.**

b. Limit roadways, make them as narrow as possible, design them to meander comfortably through the trees and retain rural qualities.

- c. Build a small pond (approx. 1/4 acre) for many uses: wildlife and species diversity, fire protection, recreation, aesthetic enhancement.**
- d. Designate a 2 - 4 acre agricultural zone on the wide southern shelf.**

3) Provide central parking areas out of the community view.

As we enter the community, we leave our cars behind. But we must, at the same time, make safe and convenient access for all.

- Therefore:*
- a. Create a central, well-screened parking areas for 30 cars down gradient from the plateau, to the west of the community, with 8 - 10 additional spaces near the entrance to the Common House.**
 - b. Provide a storage barn on the plateau with a covered drop-off, individual storage areas for each household, and a system of carts for transporting goods to and from the houses.**
 - c. Vary the proximity of houses to parking, from 120' to 320'.**
 - d. Provide for emergency and occasional vehicle access to within 60' of the front door to all houses, along community pathways.**
 - e. Provide a permeable parking surface, landscaped and screened.**
 - g. Provide a screened storage area of approximately 1/2 acre at the northern edge of the property, adjacent to and accessed through the South Mountain property, for storage of large items: building materials, lobster pots, old vehicles and equipment.**

4) Houses should evoke regional tradition and promote a sense of neighborhood.
The forms should be simple, spare, honest, and satisfying.

Therefore: **a. Use a simple 1 1/2 story Victorian farmhouse form.**

- b. Gable ends face the community.**

5) Create architectural variety.

Visual interest is generally created with complex oppositions of shapes. In this community it will be achieved by the aggregate mass of the cluster of buildings and their relationship to the landscape. We can enhance this through the use of contrasting color and detail mixed with consistent forms and materials.

Therefore: **a. Use repetitive plans with similar siding and roofing.**

- b. Vary window color, doors, porch rails, landscape, building spacing, building setbacks, and building size.**

- 6) The houses should be healthful, nurturing places to live.
Although compact, they should be filled with good light, clean air, good ventilation, nice views, non-toxic materials, a spacious feeling, and long interior sight lines.

Therefore: **a. Design an open space plan with some functional kitchen separation.**

b. Provide natural light on two sides of every habitable room if possible, and good natural light throughout.

c. Choose low-toxic, natural materials.

• ENERGY AND RESOURCES.

- 7) Design for minimum imported resource use over time.
Whenever possible, resources required should be produced or harvested on-site. These include thermal and electrical energy, water, food, and building materials.

Therefore: **a. Designate an appropriate upland site for future community wind turbine(s) that is easily accessible.**

b. Use trees from the site as a building material.

d. Provide sufficient cleared land for gardens, orchards, and livestock.

- 8) Plan for the use of renewables.
These include renewable energy for heating, hot water, lighting, and electrical loads. Use renewable materials for construction, maintenance, and repair, and maximize the use of materials with recycled content, recyclable design, and local origin.

Therefore: **a. Provide at least 300 SF of unobstructed south facing roof at 30 degrees or more on each dwelling for future solar collection.**

b. Use salvage and recycled materials wherever feasible.

- 9) Treat human waste as a resource, and eliminate its potential to pollute.
Human waste can be a concentrated pollutant or a valuable resource. Design for complete organic nutrient cycles and recycling. Compost human and other waste, filter greywater and return to the land.

Therefore: **a. Stack bathrooms to facilitate the use of composting toilets.**

b. Bring greywater to a central filtration area.

c. Use composter liquid end product to fertilize fields.

• ECONOMY AND ADAPTABILITY

10) Design single family houses tightly clustered.

Although multi-family dwellings have been determined not to make sense for this group (due to personal preference, the current banking and appraisal climate, and the lack of sufficient economic advantage), if single family houses are placed close together, infrastructure will be more economical, services can be shared, the Common House will have more value, and more open land will be preserved.

Therefore: **a. Maintain 25' - 35' spacing between buildings North to South.**

b. Maintain 100' - 150' spacing between buildings East to West.

11) Design houses to be easily expanded and altered.

Houses that gracefully accommodate changing needs and uses serve occupants best.

Therefore: **a. Plan for additions, bays, additional skylights, and other changes in the original siting, design and framing of the houses.**

b. Provide a dry, well-lit basement for expansion space.

12) Emphasize durability.

Building lifetimes should be measured in centuries. Maintenance procedures should be obvious and easy.

Therefore: **a. Choose durable materials and construction systems and standardize materials and design for optimal purchasing.**

b. Minimize the use of paint and other materials that require frequent upkeep or replacement.

13) Create three house designs that spring directly from one another. The two bedroom unit should easily become the three bedroom unit, which should easily become the four bedroom unit.

Therefore: **a. Challenge the design of the core house to have the ability to unfold over time and easily expand into the other two unit types.**

14) Create architectural choices but discourage customization.

Balancing this tension has been difficult for most cohousing communities. If we can honor some degree of personal differences while rigorously employing production building methods, we may be able to satisfy ourselves and keep within our budget.

Therefore: **a. Create a standard design with a menu of options.**

b. Beyond the options, households can change their houses after appropriate design review.

• COMMUNITY

15) Establish and maintain buffers to ensure community privacy and to reduce impact on neighboring properties. These buffers should have different standards. All should have no-build provisions.

Therefore: **a. Establish a 200' buffer from Stony Hill Rd. Make the first 150' of this woodland a no-cut zone, except for cutting of dead wood, selective management, and necessary roadways.**

b. Establish a 200' no build buffer from the northern property line of Lot # 4. Limit use of this zone to agricultural activities.

16) Establish the Common House as both the gateway and the heart of the community. It is the public aspect and the focal point, and it is also a fundamental part of each households' space.

Therefore: **a. Site Common House prominently at the entrance to the community.**

b. Create a receptive entrance to welcome all who come.

c. Cluster houses so they are near the Common House and it is visible from as many porches as possible.

d. Design the Common House to open out to all directions.

17) The Common House should serve many functions and feel home-like and inviting. It should be beautiful, comfortable, and non-institutional. The storage barn should be adjacent to the Common House, and complement its functions.

Therefore: **a. Make the Common House a large, rambling house, not a public building.**

b. Include kitchen, dining and function space, inglenook with fireplace, guest rooms, laundry, children's room, screened porch, and large flexible basement for workshops, teen room, storage and bulk supplies, and recycling center.

c. Design the storage barn as a Barn, non-winterized, with flexible space to meet changing community needs, and recycling/trash area designed for pick-up. Set aside areas for dumpsters, recycling containers, and future greenhouse to the south.

18) Create a Network of Outdoor Commons.

Outdoor gathering and recreation areas, and a variety of landscapes, will make the community vital and interesting.

Therefore: **a. Connect the elements of the community with paths, open areas, a variety of landscapes, groves of trees with hammocks, and diverse gathering areas. Establish “gathering nodes” such as a sandbox, a picnic table, and a hammock placed together.**

b. Provide multiple play areas - from sandbox to ball field - that understand and respect the hierarchy of age groups that will use them.

c. Provide several types of community garden spaces, for herbs, vegetables, flowers, and fruit. Allow 12 - 16,000 SF for main community vegetable garden.

19) Plan for accessibility.

Careful attention to universal design practices will extend accessibility to those who are physically handicapped and increase flexibility for those whose circumstances change over time.

Therefore: **a. Provide functional accessibility to the entire first floor of each house, and a bedroom (or potential) on the ground floor.**

b. Design for additional future accessibility.

c. Make the Common House fully accessible.

20) Plan for enhanced community interaction while honoring the private realm.

By their layout and design, the houses should spill out into the community, while preserving private space and quiet for their owners. Transitional spaces - “soft edges”- such as individual walkways and porches, will complete the gradation from community to privacy.

Therefore: **a. Provide a public-oriented front porch and an individual walkway (15 - 60’ long) to the community pathway. Use different materials for**

walkways: stone, brick, wood, bluestone, etc.

b. Provide private backyard terraces screened by dense plantings, fences, and building geometry's.

c. Open the porch entry into the kitchen side of the house , and create a more private living area to the rear.

21) Plan for changing community needs. As time passes, additional facilities may be needed.

Therefore: **a. Designate an area for an additional community building that may house offices and/or workshops.**