

# The Aurora Dwelling Circle

a  newearthliving community

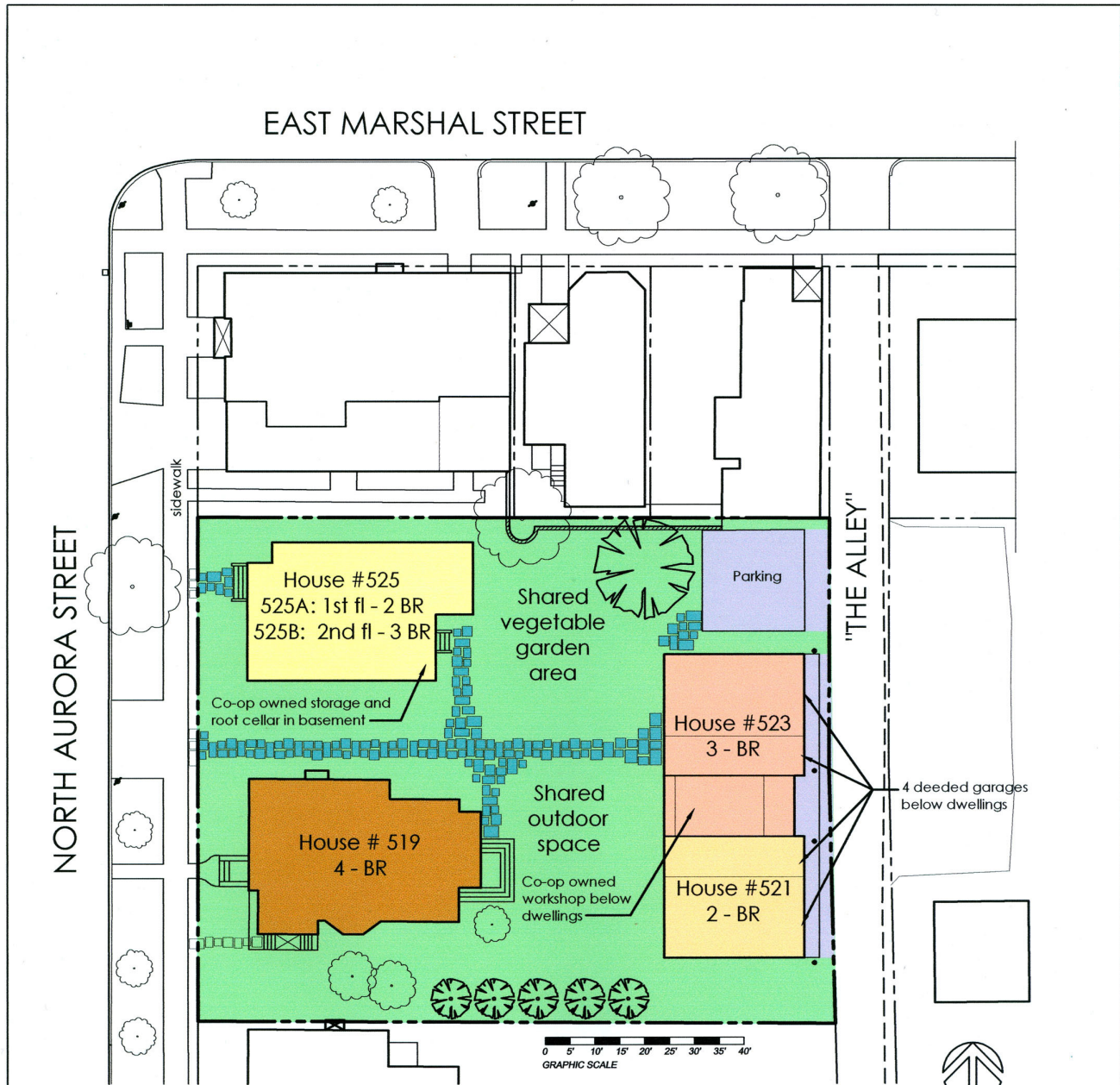


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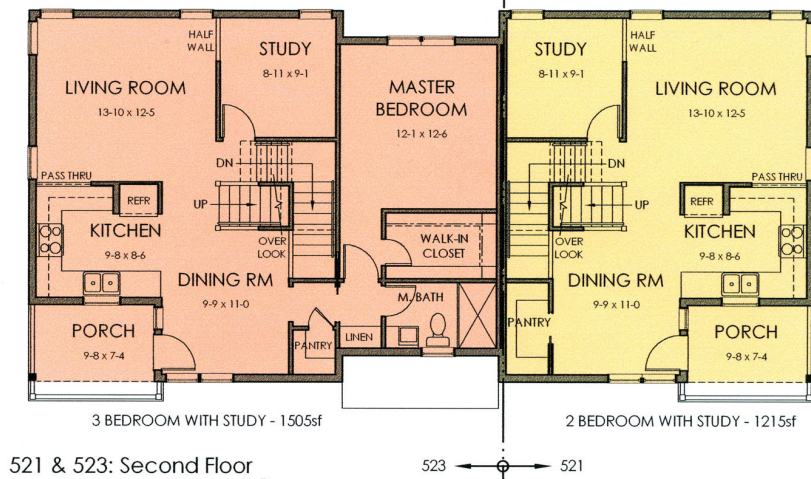
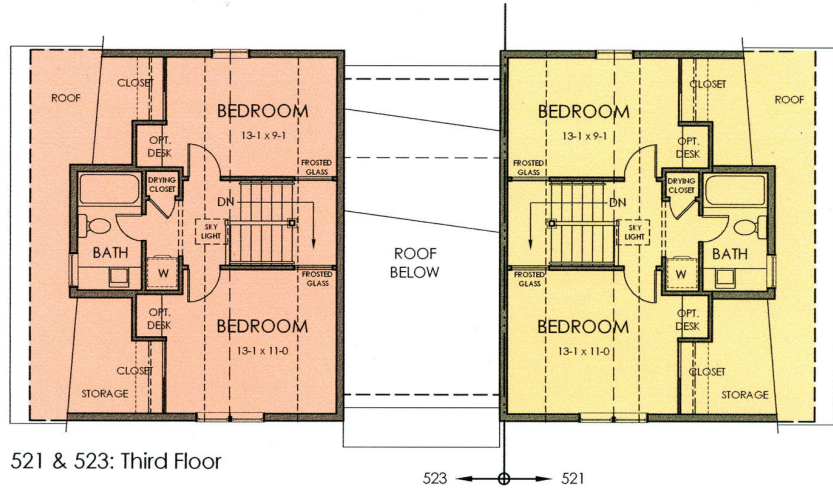
# Aurora Street Dwelling Circle

519 - 523 North Aurora Street, Ithaca, NY 14850

New Earth Living LLC - development consultant  
 Robert Morache, New Earth Strategies - development concept and design  
 Jason Demarest, JKD Architects - architecture and engineering

# Site Plan

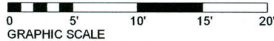
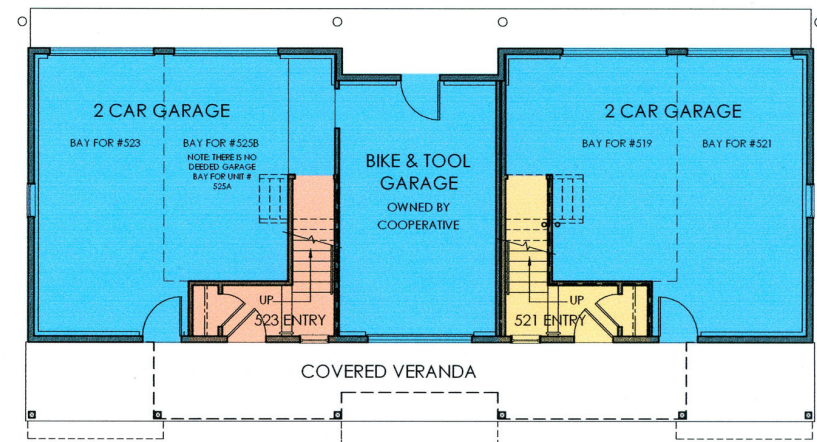




UNIT #521: 1215sf - 2nd & 3rd floors, 2 bedrooms + study, one bath, 1st floor entry.

UNIT #523: 1505sf - 2nd & 3rd floors, 3 bedrooms + study, 2 baths, 1st floor entry.

Cooperatively owned garages and workshop



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## #521 & #523 Floor Plans



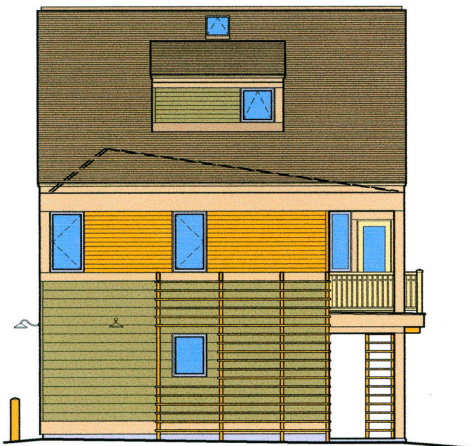
521 & 523: West Elevation

523 ← ⊙ → 521



521 & 523: East Elevation

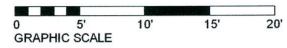
521 ← ⊙ → 523



523: North Elevation



521 South Elevation



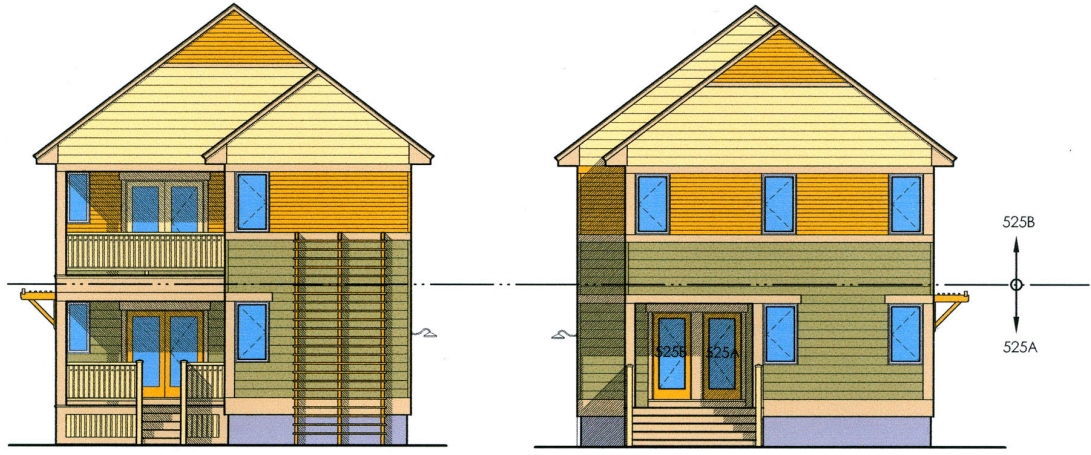
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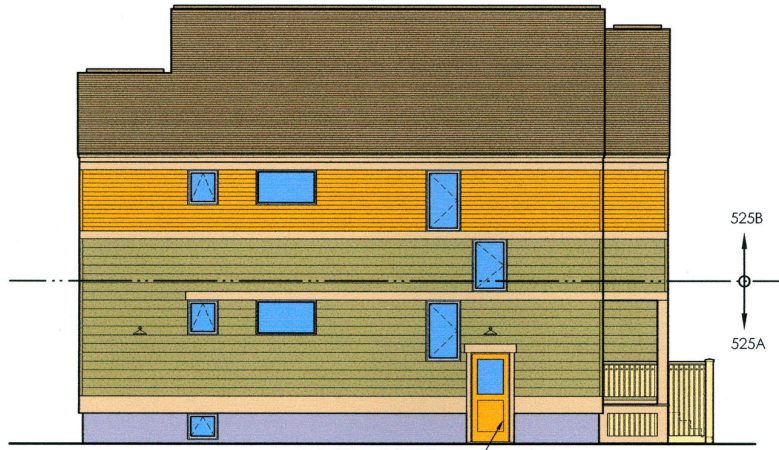
## #521 & #523 Elevations





525: East Elevation

525: West Elevation

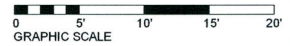


525: North Elevation

DOOR TO STORAGE  
AND ROOT CELLAR



525: South Elevation



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## #525 Elevations

# Aurora Dwelling Circle “Green Features”

## Building envelope & finishes

- Buildings are super-insulated with R35 in walls and R70 in ceilings. We are using soy foam insulation in walls and cellulose in ceilings. The walls are constructed in a manner that significantly reduces thermal bridging. Special attention will be paid to creating air-tightness.
- Double wall 2x4 framing and engineered floor joists to reduce wood consumption.
- Windows will be *Serious 725 series* casement, awning, and fixed units with an R value of 5.9 - 7.1, depending on unit type and size. Windows have soy foam insulated fiberglass frames.
- Foundations will use 40% fly-ash (a recycled waste product from coal burning) to reduce the use of virgin cement and increase the strength and water resistance of the concrete.
- Siding is fiber cement with fly-ash to increase durability and reduce wood consumption.
- Paint with zero volatile organic compound (VOC) emissions will be used.
- Attention has been paid to day-lighting all rooms, and no incandescent lighting will be installed.
- Recycled plastic solid surface countertops will be a middle grade option (laminare and/or butcher block will offer an economy option, and *Ice-Stone* recycled glass will be an upgrade).
- Cabinets will utilize non-formaldehyde containing materials.
- Metal roofing will be used on rainwater collecting surfaces, other roofing will be 30yr architectural asphalt shingles.
- Porch decking will be mahogany instead of pressure treated. (PT lumber must be used for some porch framing however)
- Flooring materials will be natural fiber carpet on recycled cotton pad, ceramic tile and pre-finished hardwood.
- Garages are insulated to temper the space above and to be adaptable to other purposes as car use diminishes.

## Mechanical

- Heat recovery ventilators (HRVs) will be installed in each unit.
- Heating and domestic hot water for the 4 new homes will be provided by a single high efficiency 50-70K BTU gas boiler. A hot water storage tank will be located in each building, with zones to each unit. The tanks will have a 3rd coil for the future addition of solar hot water. Roofs are pitched at 9 on 12 and face due south. Heating system and future solar HW system will be common, not individually owned.
- An option for a more environmentally sustainable pellet fired boiler (instead of natural gas) will be presented for the resident group's consideration prior to construction.
- There will be no air-conditioning, only ceiling fans.
- All south windows will be shaded by overhangs or trellises.
- All plumbing fixtures will be water conserving, and we are considering the use of urine separating toilets.
- Water harvesting system is planned, but has to be a future installation because of cost.
- Each dwelling unit will have an electrical sub panel with visible digital readout of energy use to make owners aware of their power consumption.
- Energy Star appliances (no gas ranges due to airtight construction)
- Clothes dryers not recommended, but optional (they suck too much air out of the building) There will be space for indoor drying racks and clothes drying lines on each porch, and no bylaw restrictions to hanging laundry.
- Energy Star dishwashers an option... 2 bay kitchen sinks standard with hand washing encouraged.

## Location and site planning

- 1/3 acre infill lot in an urban area close to transit and served by existing infrastructure.
- New trees will be fruit or nut bearing.
- Edible landscape and raised bed vegetable gardens with cold frames to be designed and built over time by resident group to suit their needs.

- Rainwater runoff will be retained on site to extent possible.
- Existing barn/garages will be dismantled/recycled by Finger Lakes re-use.
- Lawn area will be limited.
- Site lighting will be photocell or motion detector activated.
- A dedicated compost area will be built (with possible winter worm bins indoors)... intention is that organic material, including kitchen waste, be composted on site and used to build soil fertility.

#### Common facilities

- Bike garage and workshop (this space will also house the common heating plant).
- Shared yard/gardens.
- Root cellar (intention is to eat seasonally and locally, to achieve cost savings by group purchasing of food, and to preserve garden grown produce).
- Basement storage area.
- House #519 has a comparatively large kitchen and entertainment area that will be available to the entire group per arrangements with #519's owner... most likely place for community dinners.

#### Social arrangements

- Cooperative ownership/ resident management (all units will be owner occupied).
- Intentional relatedness with training and practice in listening skills.
- There will be an intentional commitment to resource/skill sharing, sustainable lifestyles and reducing consumption in the spirit of the 5-2-ONE initiative.
- This site will be a neighborhood drop-off point for the Full Plate Farm Collective CSA.



# Comprehensive Affordability Comparison

The following is a comprehensive view of the overall affordability of choosing a residence in a New Earth Living urban Dwelling Circle versus the average housing/energy/transportation costs in the suburban and rural areas of Tompkins County.

## Aurora Dwelling Circle

Located in City of Ithaca

### Building Cost:

Average unit price	\$200,500
Mortgage (10% down, 5.5%int)	\$180,450
City/ICSD tax rate	\$34.42/1000 assessed value

*Payment (interest, taxes, ins, PMI)*      \$1,617/month

### Transportation Costs:

Single Automobile (AAA average)      \$8,000/year

*Monthly Expense*      \$667

### Energy Costs:

*costs for heat, hot water and electricity*

Average projected annual energy cost      \$737/year  
*Monthly*      \$61

**Totals Monthly Comprehensive Cost: \$2,345**

### Food goals that can reduce household expenses:

Use of CSA shares, group delivery  
 Bulk purchasing as a group  
 Growing & preserving food on-site as a group

### Community possibilities to reduce living costs:

Group as General Contractor      saves \$83,000  
 Babysitting/child care  
 Sharing rides/vehicles  
 Sharing tools and skills  
 Sweat equity & "do-it-together" teams  
 Collective maintenance efforts

## Tompkins County

Located outside 14850 zip (rural & suburban areas)

### Building Cost:

Average 4 <sup>th</sup> quarter 2009 sales price	\$129,000
Mortgage (10% down, 5.5%int)	\$116,100
Average town tax rate	\$26/1000 assessed value

*Payment (interest, taxes, ins, PMI)*      \$970/month

### Transportation Costs:

Two Automobiles (AAA average)      \$16,000/year

*Monthly Expense*      \$1,333

### Energy Costs:

*costs for heat, hot water and electricity*

Average annual energy cost      \$2,600/year  
*Monthly*      \$216

**Totals Monthly Comprehensive Cost: \$2,519**

### Food goals to reduce costs:

Use of CSA share, you pick up  
 Bulk purchasing alone?  
 Growing food on-site alone

### possible additional living costs:

Could you be your own GC alone?  
 Babysitting/child care  
 Commute time/driving  
 Owning tools, hiring help  
 "Do-it-yourself"?  
 Hiring help for maintenance

- Average house prices for Tompkins County are based on sales data by zip code for the 4<sup>th</sup> quarter 2009. Rural/suburban average price below excludes city/town of Ithaca (14850)
- Note that the average selling price for homes in the 14850 zip code (approximating city and town of Ithaca) was \$195,000. Aurora Dwelling Circle unit prices are as follows:
 

#521	1510sf	\$200,000
#523	1215sf	\$254,000
#525A	940sf	\$153,000
#525B	1180sf	\$195,000
<b>Average</b>		<b>\$200,500</b>
- Mortgage payments shown assume 5.5% interest on a fixed rate 30 year loan, with 10% down and .5% PMI. Payment also includes insurance and taxes.
- Average annual cost to own a car (\$8,000) based on American Automobile Association data for 2009. Note, SUVs and light trucks average \$10,000 per year..
- Projected energy use for Aurora Dwelling Circle homes based on TREET analysis by TAITEM engineering.
- All costs are hypothetical averages. Actual costs will vary according to household lifestyle.

# Aurora Dwelling Circle Estimated Unit Pricing

The following prices include: land, site work, building construction cost, permitting fees, design, legal work, equal shares of common spaces, and allowances for a middle grade of interior finish. Determination of exact pricing will depend on resident's final finish choices, sweat equity input and group design decisions (see *New Earth Living Development Process Outline* following this section).

Estimated unit prices are considered valid as of February 2010.

Because the resident group will be their own General Contractor (with support from the New Earth Living Construction Management team), 2 prices are given: the first is the price with the group's participation (Co-op price). The second, roughly 10% higher price indicates what a contractor would normally charge to build the same home with no involvement from the owner (Contractor price).

Unit #		Co-op price	Contractor price
521	2br, 1 bath, with study, 1 garage bay	\$200,000	\$220,000
523	3br, 2 bath with study, 1 garage bay	\$254,000	\$281,000
525A	2br, 1 bath	<b>SOLD</b> \$153,000	\$169,000
525B	3br, 1 bath, 1 garage bay	\$195,000	\$215,000

**Sweat Equity:** Resident participation in the actual construction and finishing process (i.e. doing painting, etc) can reduce prices. Group work teams can reduce prices for *everyone* and build relatedness.

**Tax Incentives and grants:** New Earth Living is consulting with Cornell Cooperative Extension to determine the amount of tax incentives or grants available through State and Federal sources to offset the cost of green features. Funds from these sources may reduce project costs. An outline of applicable programs follows.

Note: There will be no monthly cooperative fees required to cover construction costs.

Maintenance fund:

Resident group will determine a reasonable monthly payment to cover any maintenance not done by group members, costs for ongoing improvements and group projects (like garden beds and additional planting), and group social activities. "Pay as you go" for projects is also a possibility if the group prefers to operate in that manner.

These newly constructed homes are not expected to require *significant* maintenance or repair for 20-30 years.

Cooperative will be responsible for exterior painting every 10-15 years, possible overhaul of common mechanical equipment every 20 years, and re-roofing every 30 years, in addition to reasonable regular maintenance of buildings and equipment. Group should create a financial strategy to build up resources in anticipation of these eventualities.

# Federal and State tax incentives and grant programs

## We will be Eligible for:

- **New York State Energy Research & Development Authority (NYSERDA) Green Building Services – New Construction Program:** New York Energy \$mart programs offers **technical assistance** for energy-efficiency options, **cash back** for installations, and **additional incentives** for green measures.
- **Leadership in Energy and Environmental Design (LEED®) Certification:** Increases eligibility for NYSERDA and Federal funding programs, as well as Bonus Incentives.
- **Energy Incentives - Federal Tax Rebate up to \$1500:** Dwelling Circle applies with energy efficiency of the Heating & Cooling Systems.
- **Green Building Tax Credit – NYS Dept. of Environmental Conservation:** All costs of construction or rehabilitation are applicable in Tax Credit application.
- **Assisted Home Energy Performance Program with ENERGY STAR – Two Incentives:**
  1. **Assisted Subsidy** – up to **60%** of total cost of efficiency improvements (if at or below 80% of State or Area Median Income).
  2. **Residential Loan Fund** – low interest rate financing for balance of cost of efficiency improvements through selected Lenders (if at or below 80% of State or Area Median Income).
- **On-Site Renewables Federal Tax Incentives:** Tax Credit up to **30%** of cost of Renewable Energy system (e.g. solar, wind, or geo-thermal).
- **NYSERDA Solar Electric Incentive Program:** **25%** to **35%** incentive of the installed cost of a PV system.

\*\*\*A fully outlined account of actual benefits will be provided once certification process is complete.

# New Earth Living Development Process Outline

New Earth Living is committed to creating a new paradigm in residential development which honors the value of human connection and resident participation. Our unique process of creating Dwelling Circles™ not only saves the resident money, it also builds the trust and open communication among households from which the lasting bonds of community can flourish.

Below is an outline of the step by step process which begins with your household's decision to embrace the possibility of living in a New Earth Living Dwelling Circle:

## 1. Choose to live in a Dwelling Circle

New Earth Living presents project which has been at least preliminarily designed (feasibility study and rough unit pricing minimum). Potential resident made aware of the social and environmental goals of the new community and the development process outlined here.

## 2. Individual households pre-qualify with their banks.

Potential resident should be pre-qualified for purchase price of dwelling, including commons costs and monthly coop fees (if applicable), prior to joining a Joint Venture (see below).

## 3. Attend the *Listening Workshop*

This first group session will establish fundamental "conscious communication" skills needed for smooth decision making and consensus building. This will be of value to all participants even if they do not ultimately choose to become residents.

## 4. Social event

Potential residents meet with each other socially and discuss in a talking circle what kind of community they imagine living in, including community policies.

Outcomes:

- Identification of conflicts/issues/"deal-breakers" regarding policy.
- Identification of potential severe personality conflicts between potential residents.
- Obtain clear understanding of community intentions and commitments.
- Learn about each other as people... feel comfortable with each other.
- Practice conscious communication.

## 5. Join a New Earth Living Joint Venture

Future resident is made aware of risks and responsibilities involved. Must provide initial cash investment (not called "deposit" prior to offering plan approval. JV investment will become the resident's unit deposit after Offering Plan is approved by Attorney General). JV may be an LLC or limited liability partnership to protect those members who have significant assets from potential unfair liability.

## 6. Participate in *Cooperative Bylaws Workshop*

Members will customize New Earth Living's boilerplate bylaws to suit their resident group. This session may also outline community policies such as pets, noise, parties, smoking, children, etc.

Outcomes:

- Bylaws suitable for inclusion in Cooperative Incorporation and Offering Plan legal documents.
- Outline of community policies, which may be worked out in detail after move-in.

## 7. Joint Venture submits Residential Cooperative Incorporation. This legal document filed with the State establishes the non-profit corporate entity which will own the dwelling circle and in which residents will own shares. Shares in the cooperative corporation entitle each resident to their dwelling unit.

8. Joint Venture submits Offering Plan. This legal document must be filed with and approved by the State Attorney General. It documents the design, costs and physical features of the project, delineates the group's bylaws and policies, and discloses the financial aspects of the project. Units cannot be officially "sold" until this document is approved and construction financing may be contingent upon approval.

9. Participate in *Construction Management Workshop*

This session will introduce New Earth Living's Construction Management team, outline the construction process, establish what residents will need to do and commit time to, define how money will be handled etc.

Outcomes:

- Establishment of a group of 3 residents committed to overseeing cash flows, managing payments from construction loan draws to the construction manager (CM), subcontractors and suppliers, and reporting back to resident group on construction progress and issues.
- Development of familiarity and trust between residents and construction management team.

10. Participate in *Sweat Equity Workshop*

In this session, the CM identifies possible tasks that can yield cost savings for members if they choose to commit labor and time within the constraints of the construction schedule.

Outcomes:

- Identify tasks residents are willing to do themselves.
- Determine if residents will perform work only on their units or will "barn-raise" on all units.
- Identify team for each task, with alternates.
- Identify timing and time commitment within the construction schedule.
- Establish accountability and define consequences (increase in cost) if tasks are not completed as per commitments.

11. Make household design decisions, choose options

Individual households will meet with CM for about an hour to choose options. Extra design time for higher levels of unit "customization" involving additional design time will be billed to the individual household.

Outcomes:

- Choose kitchen and bath cabinets and specific cabinetry features.
- Establish floor finish choices.
- Establish plumbing fixture choices.
- Define specialty items and establish timeframe for their inclusion in the construction process. (resident responsible to procure specialty items in time for installation)
- Establish any change in cost from the original dwelling unit price and write up change order.

12. Participate in *Group Design Workshop*

This session will allow for any input needed to finalize the design, finishes and features of indoor and outdoor common areas.

Outcomes:

- Agreement on certain common area features and changes in cost
- Agreement on what is NOT included in initial construction, i.e. landscaping, raised garden beds, solar panels, etc, to be purchased and installed after move in.

13. Determine final unit prices

CM to determine final unit pricing considering individual change orders and final cost of common areas.

Outcomes:

- Households approve final pricing.

- Adequacy of J.V. investment to collateralize construction loan is assessed... additional funds collected as required.
- Documents prepared for bank.

14. Start Construction with joint venture funds.

Ground-breaking Party!

15. Cooperative Incorporation approved

16. Offering Plan approved by Attorney General

17. Joint Venture gets Construction Loan to complete construction.

18. Sweat Equity work sessions

These sessions are scheduled by the CM and the residents. Work teams must commit to the schedule or face delays and possible cost penalties. Scope of work will be clearly established and residents must have necessary skills to do the work they commit to. Residents must do work with minimal input/supervision from CM team. Unacceptable work will need to be re-done.

19. Completion of Construction: Certificates of Occupancy from city inspectors.

20. Individual households obtain mortgages for their shares in the cooperative corporation.

21. Punch lists and inspection by group. Individual unit punch lists and inspections.

22. Joint Venture sells shares to households

23. Construction loan paid off by Joint Venture... JV dissolves

24. Cooperative corporation takes control of property.

25. Move-in

Opportunity to help each other. Consider staggered move in, group trips to home stores, sharing trucks or expenses, coordinate box breakdown for recycling, etc.

26. Revisit the *Listening Workshop*. (could be short session before *Designing a Juicy Life Together*)

27. *Design a Juicy Life Together Workshop*

This workshop kicks off the possibilities of living together after everyone has settled in (one month). Begin with a clearing about the whole construction/move-in experience.

Outcomes:

- Revisit community policies made or outlined earlier, revise or finalize as needed.
- Identify what needs to be completed (i.e. landscaping, raised beds, etc) and create a structure (timeline, who will do work, costs, etc) for their completion.
- Identify possibilities for common dinners, resource sharing, car-sharing, etc based on an emerging awareness of each other's routines, gifts and needs.
- Get feedback from residents about process... what worked what didn't.
- Have a party!