Model Infrastructures for Getting Started

The abiding concepts in the following procedures are to achieve affordability, sustainability, energy efficiency, and pleasant design within a designated budget. While there is some overlap in the three suggested procedures, it is important to thoroughly read them all. In all cases, **pre-purchase home-buyer counseling is paramount**, and will streamline the process for any family wanting a home.

Getting Started as an Individual

1.**Inform yourself** on standard building practices by reading books, talking to builders and tradesmen, and visiting jobsites.

Understanding standard practice in conventional construction will accomplish two things: (1) you will become aware of standard materials and strategies in the building industry, but more importantly, (2) you will develop a sense of what kinds of materials—although not standard—might nevertheless successfully substitute for conventional counterparts. All building codes have a provision included in the document that allows alternative materials and strategies, **provided they fulfill the intent of the code and are approved by the building official of the jurisdiction you are building in.** By understanding the full spectrum of materials and techniques, only then is a person able to make a judgment about alternatives.

2.**Make contact** with the jurisdiction.

Make an appointment with a building official at your local building department. Explain what your intentions are—perhaps providing pictures of what you would judge to be successful houses built with recycled materials. Get his advice, as well as ask for other folks he might recommend you speak with. In short, do your best to interest him in the concept. He can help you in infinite ways, provided that he understands that you have a legitimate interest, have done your homework, and respect the boundaries that guide his professional life. Be prepared to explain how you will fulfill the intent of the code.

3. **Acquire property**.

When shopping for property, there are a few things to keep in mind:

A. Are all utilities available?

B. Is the property large enough to develop in the way you would like?

C. Are there any restrictive covenants or zoning ordinances that would prevent you from doing what you intend?

D. Is an up-to-date survey available, showing easements?

E. Is title to the property clear?

F. Is the property free of flood or flow planes, protected swales, or other environmental issues that would hamper development?

G. Is the location appropriate for what you intend to do, and will the property—once developed—appraise in a way that would be appropriate for a single family residence? Too high an appraisal makes it difficult for a family to pay the taxes.

4. **Develop plans** in as much detail as is required, perhaps in consultation with an engineer, if appropriate. Keep your project **small**, planning for the possibilities of later additions. If you don't have a clue how to draw up plans, either learn what is fundamentally required for a building permit, or hire a draftsman to do your plans. Most building departments have packets available specifying just what is necessary—including scheduled inspections—and quite likely can steer you in the right direction, depending on your needs.

Go to a building supply house and ask for a "quick reference" guide for building codes. While these don't answer all questions, they do indeed summarize the majority of issues you will face in passing inspections. Obtaining a complete copy of the prevailing one-unit residential building code in your area is always a good strategy. After thumbing through it for a while, you'll realize that indeed it is organized and quite specific. These are sure-fire guidelines for building a healthy and hazard-free house, and basically represent minimum strategies for health and safety. Research the energy-efficiency standards for construction in your area.

5. **Acquire storage space and collect materials** over a period of time, anticipating what you can use.

While not all materials must be collected before beginning, a substantial portion needs to be available when you are ready to begin. Whatever materials you don't have, either know that they **will** be available when you need them, or resolve to buy new. Storage of materials can be a knotty problem. Security is always an issue. And materials that will degrade further from weather and insects must be protected, and the storage location must be kept as neat as possible. After all, your neighbors will have to tolerate your mess until the house gets built. Being a good neighbor is always a good strategy.

6. **Start** the building process, communicating with the inspection department regularly—not just when required—and making adjustments as required (of course, without being a pest). Call in for appropriate inspections at each stage of the building process, being certain that the inspector will be able to inspect all elements appropriate to that inspection. That is, don't cover anything that must be evident to the inspector. When the inspector arrives, have a note pad ready to make notes on needed corrections. The building inspector's job is to protect the public safety and he deserves your courtesy. Have a list of questions ready for when he arrives.

7. Keep an eye on design, so that the eventual structure doesn't have a slummy appearance as a chaotic mixture of odd materials. Be ever mindful that **repetition creates pattern and unity.**

Getting Started in a Small Community

1. **Start a coalition** of like-minded individuals who would like to see recycled building materials enter the mainstream. Include a broad spectrum of people, from architects, builders, and tradesmen to green-oriented organizations, city councilmen, and community-minded entrepreneurs. It is always good to have someone with leadership skills who will spearhead the project, and perhaps a second in command who can organize committee task forces.

Prepare for a first meeting. Don't assume that everyone you have invited will be as excited as you are. Have some pictures available of recycled houses that are appealing, and be prepared to offer some hard data about why "re-use" is needed and smart. There will quite likely be some tradesmen and businesses that could feel threatened by such a concept, and you will need to address their fears.

Have a first meeting, with an agenda for brainstorming and setting up task-force committees, with a deadline for completed assignments. Keep in mind that everyone has just so many "good-guy" hours. Spread the work equally, being as forgiving as possible, but always resolved in moving forward. Set a date for the next meeting.

2. **Contact the superintendent of solid waste** in your community, the city manager, or your council member, and ask what the possibilities might be for constructing a warehouse to store useable building materials. City councils and waste management departments would welcome fewer burdens on the community's landfill or transfer station. Perhaps a member of the city staff is aware of a funding agency or organization that might provide funds for a warehouse, a resale yard, or other venue for the transfer of useable building materials to those who would gladly use them.

Inquire about grants—both locally and through the Internet. If Habitat for Humanity in your area does not have a "Restore," which is a building materials salvage yard, contact them to see if one can be developed. Identify salvage yards in the private sector and develop a sense for what they specialize in.
Get the local newspaper involved, asking for interested participants.

3. **Identify local builders**, tradesmen, artists, or anyone interested in building with recycled materials, to see if they might like to start a project. Get them involved in the process, keeping in mind that they also have families and need to have some income from such a project.

4. **Identify properties** on the city's inventory of tax-foreclosed properties—with the help of the city manager—that could be possible first locations. Start small. Usually this means "infill" construction. The lots need to be free of issues that would prevent what you intend.

5. **Identify a family** that would potentially qualify for a house, and get them involved. Emphasize **small**. Later on, after a family moves in and needs to expand, they can add on

a room. ***But start small***. This not only makes the project feasible for the life span of people's excitement for the project, but also simplifies all stages of the process.

6. **Identify lenders** who might be sympathetic. Banks have Community Reinvestment Act responsibilities, and this could be a dandy venue for that. Some banks won't lend on designs that depart from the marketplace too much—in profile or scale. And since banks lodge trust in the marketplace, projects on the fringe of the marketplace will be denied.

Private parties can also fund a project. Ask a lawyer to develop pro bono a legal instrument where everyone involved feels comfortable when using a private lender.

7.**Inquire at the building department** if it might be possible to have one inspector follow the project from its beginning to completion. Small communities are more likely to have a "multi-discipline inspector," or an MDI, since the inspection load or city budget prevents having a number of specialized inspectors. That is, an MDI inspects all aspects of the building process—not just electrical, for instance. If one inspector can follow the project through to completion he'll be able to anticipate problems you might have more easily.

8. **Assist a sympathetic builder** in getting started, with plans, materials, strategies, and scale.
Act as liaison between the builder, family, inspection department, and lending institution.
Organize a network of volunteers that can be relied upon for assistance.
Start construction, always with an eye toward media coverage, confidence of the people involved, and troubleshooting problems that arise.

Getting Started in a Metropolitan Area.

1. **Start a coalition** of like-minded individuals who would like to see recycled building materials enter the mainstream. Include a broad spectrum of people, from architects, builders, and tradesmen to green-oriented organizations, city councilmen, and community-minded entrepreneurs. It is always good to have someone with leadership skills who will spearhead the project, and perhaps a second in command who can organize committee task forces.

Prepare for a first meeting. Don't assume that everyone you have invited will be as excited as you are. Have some pictures available of recycled houses that are appealing, and be prepared to offer some hard data about why "re-use" is needed and smart. There will quite likely be some tradesmen and businesses that could feel threatened by such a concept, and you will need to assuage their fears.

Have a first meeting, with an agenda for brainstorming and setting up task-force committees, with a deadline for completed assignments. Keep in mind that everyone has just so many "good-guy" hours. Spread the work equally, being as forgiving as possible, but always resolved in moving forward. Set a date for the next meeting.

Consider forming a non-profit organization with tax-exempt, 501 (c) (3) status. This will streamline grant applications, liaison with the city, and donations. Someone will quite likely know a lawyer who can spearhead the process. Qualifying as a Community Housing Development Organization is superior to simply a Community Development Corporation, since housing is the primary mission, and allows access to HUD funding. Your lawyer will know the difference, and can develop the application appropriately. Many states have state-sponsored legal services that operate pro bono, and can be tapped for assistance. In Texas, that is the Texas C-Bar, a state pool of lawyers who help non-profit organizations pro bono.

When considering becoming a non-profit organization, review ways to become self-sustaining and independent of grants. Grants can be helpful for large capital expenditures and getting started, but can change the focus of the organization if they are not kept to a minimum.

Research and become familiar with Community Land Trusts. This is a concept that essentially keeps the house affordable to the same income groups over time, which impacts the price of the house, taxes, and the dangers of gentrification. A Community Land Trust can be fashioned to include whatever you choose.

2. **Conduct an analysis** of sources for recycled materials—including wholesalers, salvage yards, large contractors, and individuals. This can be as varied as media sources (newspaper classifieds), to Internet sources (Craigslist.com, and Freecycling.org), to bulletin boards in key buildings in the city.

3. **Develop a tight group of volunteers** that will handle all aspects of the process, with someone designated as the head of each committee. Volunteers needed will range from public relations, to warehouse management, to materials acquisition and delivery.

4. **Develop storage locations** that include inside protected space, as well as outside storage, and are reasonably secure. Someone will need to oversee how the materials are stored; otherwise the area becomes cluttered and unusable.

5. **Develop a logistic infrastructure** for getting materials to the warehouse—either through a "pick-up" network, or an incentive for delivery to the warehouse by contractors and wholesalers.

6. **Contact the jurisdiction** and explain your plans and dreams, offering to help them in any way possible, and asking for their advice. Inquire if it might be possible to have a multi-discipline inspector (MDI) follow the project from its beginning to completion. Large cities are more likely to have a number of specialized inspectors who inspect only one aspect of the building process—electrical, for instance. An MDI, however, is able to inspect most if not all aspects of the construction process. If one inspector can follow the project through to completion he'll be able to anticipate problems you might have more

easily. Whereas with specialized inspectors, each time the inspector must be briefed on the concept of the project.

7. **Develop strategies for identifying families** that qualify, and methods for helping them through the process.

8. **Identify builders**, tradesmen, and artists, or individuals willing to become licensed if necessary, to act as contractors or owner/builder mentors.

9. **Identify properties** on the city's inventory—with the help of the city manager—that could be possible first locations. Start small. Usually this means "infill" construction. The lots need to be free of issues that would prevent what you intend.

10. **Have the owner/builder or contractor develop plans, and obtain permits**. Start the construction process, lobbying the city for dispensation of building fees wherever possible.

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