

## CHAPTER 2

**Lot Selection**

Most YouthBuild programs have little choice in lot selection, since often, our construction sites are determined by construction partners or municipal housing authorities. If your program does have the ability to choose the site, avoid choosing undeveloped sites. Instead, use a previously developed site or a re-zoned residential area. This will reduce environmental impacts on the land. It may also utilize existing infrastructure – water, gas and electric lines, roads and sewer or storm drainage systems – that would cost the municipality, county or developer significant extra fees to construct.



By both choosing a smaller site and constructing a smaller home, you can minimize the amount (and cost) of building materials required for the project. Good design is important for smaller structures, and can mitigate the smaller footprint with more functional space. Also important is maximizing living spaces outside the home, such as the addition of patio and deck space, natural clearings, or other outdoor rooms (sunrooms). This can result in the need for less indoor square footage that needs to be constructed, then heated and cooled. A prospective building site should be examined for existing tree groupings, landforms, or structures that will help create pleasant, usable outdoor spaces.

**Implementation of Environmentally Responsible Site Selection:**

- Renovate (reuse, recycle) abandoned buildings
- Reuse quality items from existing structures, including lumber, doors, molding, lighting fixtures, conduit, pipe, etc. If items are still usable but not needed in your home design, donate the materials to a local building supply resale store
- Avoid ecologically sensitive areas (including wetlands, prime farmland or rare habitats) that have been identified as such through site footprinting or third-party assessment
- Choose an infill site
- Choose a restored brownfield recognized by the Environmental Protection Agency (EPA) that is inspected and zoned for residential use
- Check availability of a sufficient, rechargeable water source
- Choose a lot size of less than 5,750 sq. ft.
- Choose a lot with good access to public transportation, bike paths, and businesses, preferably within walking distance to common services – schools, public transit lines, or work places.

## SHADES OF GREEN

- Choose a lot with good access to renewable energy sources (solar, wind, geothermal, or biomass)
- Construct more than one unit per lot (duplex, garage apartment, granny flat)
- If soil or water testing is done on the property ask if you can have your students watch and learn.

### FAST FACT

Contact and share information on site selection and development within the YouthBuild system. Several YouthBuild programs have experience in constructing homes on a redeveloped greyfield or brownfield, namely:

- YouthBuild Louisville (Ky.)
- YouthBuild Holyoke (Mass.)
- HRDE-Mon YouthBuild (W. Va.)
- Housing Authority of the City of High Point (N.C.)
- Yuma Private Industry Council, Inc. (Ariz.)

## Brownfield Remediation



Brownfield remediation is a viable option for YouthBuild programs if the program can access public funding to support the redevelopment, and if the program has experience in successfully converting brownfields for residential uses. About 15 percent of the YouthBuild program respondents surveyed in 2005 confirmed that they have developed on brownfields or grayfields. In 2009, 14 percent of YouthBuild programs that responded to a second survey developed a brownfield and 4.5 percent offered their students job training related to brownfield remediation.


You can check the status of the land from any of the following:

1. Environmental Protection Agency records
2. Comprehensive plan (often conducted by a municipal government planning department)
3. Previous owner records (such as insurance maps, and land surveys)
4. Utility records
5. Set of site plans

If you are given an opportunity to build on an EPA-recognized brownfield, you will need to clean it and rid it of any pollutants. A site remediation plan can include:

- Pump and treat
- Bioreactors
- Land farming
- In-situ remediation

## Benefits of Environmentally Responsible Site Selection

- Building on a previously developed site avoids the disruption of natural habitats and sensitive ecosystems.
- Renovating a building or reusing historic materials from one can preserve the cultural heritage of community, limit urban sprawl, and yield lower infrastructure costs.
- The deconstruction of abandoned buildings on the property can yield valuable savings by reducing the need to purchase new building materials.
- Brownfield remediation significantly improves the health of the land, leaving it in better condition than before construction.
- Brownfield remediation can be supported by government grants. 

## Challenges of Environmentally Responsible Site Selection

- Reusing lots can be costly in time and funds. One scenario would be to have the donor, public agency, or authority do any demolition and remediation or prep of the property. Many cities and codes require that the builder relocate any displaced tenants at their expense.
- It is important to receive an official or stamped set of environmental drawings on an infill property, which gives the builder a clean bill of health for the lot.
- If you have to take down a building and have no prior experience doing so, you should consult with an expert on deconstruction (instead demolition and landfill) before beginning the project.
- Brownfield remediation is a specialized field of expertise that requires certification and proper training approved by EPA.



### Link and Learn

RSMeans, *Green Building: Project Planning & Cost Estimating* (Contributing Authors, 2002)

NAHB, Model Green Homes Building Guidelines:

<http://www.toolbase.org/ToolbaseResources/level3.aspx?BucketID=2&CategoryID=19>

Johnston, David and Kim Master, LEED AP. *Green Remodeling, Changing the World One Room at a Time*. New Society Publishers

U.S. Environmental Protection Agency- Brownfields and Land Revitalization:

<http://www.epa.gov/brownfields/>

U.S. Environmental Protection Agency- Brownfields Funding Information:

<http://www.epa.gov/brownfields/applicat.htm>

U.S. Environmental Protection Agency- Brownfields Grant Fact Sheet Search:

[http://cfpub.epa.gov/bf\\_factsheets/index.cfm](http://cfpub.epa.gov/bf_factsheets/index.cfm)