

Site Location & Universal Design

Site Location

- Many factors should weigh into decision for house construction.
- Natural factors
- Social factors
- Physiographic factors

Natural Factors

- How the house is going to relate to the surrounding environment.

Social factors

- Neighbors & neighborhood
- Schools, hospitals, churches, & location of other important places.
- Transportation & traffic
- Construction
- Safety
- Growth patterns



Social Factors

- Taxes rates
- Zoning ordinances – Rules for home businesses in residential areas.
 - Residential
 - Single family homes
 - Multiple family homes
 - Apartments
 - Agricultural
 - Commercial
 - Industrial

Zoning regulations can govern:

- Allowable uses of property(s)
- Size of property (lot size)
- Size, height, and shape of building
 - floor area ratios (FAR)
 - open space ratios (OSR)
- Usable area
 - set back
 - side yard
 - easements



Zoning regulations can govern:

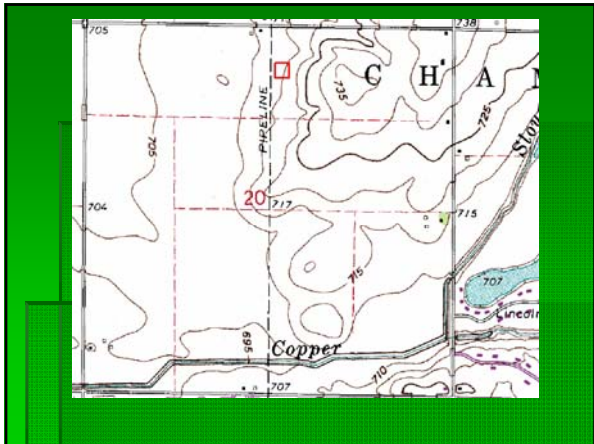
- Parking and circulation
 - number of parking spaces
 - access (location of entrance)
 - location of driveway and parking
- Aesthetics
 - planting
 - signage
 - height of building
 - shape of roof
 - color of building
 - style of building



Physiographic Factors

- Lot orientation and size
- Soil type
- Trees
- Overland flow Drainage
- These factors are more important for rural houses





Where can I find these pictures?

- www.terraserver.com
- Illinois Natural Resources Geospatial Data Clearinghouse
<http://www.isgs.uiuc.edu/nsd/home/webdocs/sitemap.html>
- Google maps
- Windows maps
<http://maps.live.com>

Universal Design

- Universal design is the design of products & environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.

7 principles of universal design applied to housing.

- Equitable Use
- Flexibility in Use
- Simple and Intuitive Use
- Perceptible Information
- Tolerance for Error
- Low Physical Effort
- Size and Space for Approach and Use

Equitable Use

- the design is useful and marketable to people with diverse abilities.
- multiple height countertops
- non-slip cutting surfaces
- wider interior doorways



Flexibility in Use

- the design will be more desirable to a wider range of consumers
- Pull out pantries and drawers.
- Accommodates left and right handed people.
- railings down both sides of stairs.
- adjustable height, movable handheld shower head.



Simple and Intuitive Use



Picture courtesy of Colorado State University

- Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level.
- Stepless entrance
- offset water controls in the shower and tub

Perceptible Information

- The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.

- Large readable dial for thermostat or telephone



Picture courtesy of Colorado State University

Tolerance for Error

- The design minimizes hazards and the adverse consequences of accidental or unintended actions.

- Crank or power operated counter system
- lever handles that are texturized to communicate to those w/ low vision that the door should not be opened.

From GE. "Real Life" (electronically) adjustable kitchen sink cabinet shown at highest & lowest level



Pictures courtesy of Colorado State University

Low Physical Effort

- The design can be used efficiently and comfortably and with a minimum of fatigue.

Low Physical Effort Examples

- Lever door handles, loop handle pulls on drawers and cabinets
- Light switches at 44"-48" high, thermostats @ 48" above the floor
- Electrical outlets placed at 18" min height

Low Physical Effort Examples

- Removable cabinet fronts at sink
- Varied height counters
- Front-loading washer and dryer with front controls

Low Physical Effort



Size and Space for Approach and Use

- Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility.
- Entry door = 36" width
- interior doors = 32" clearance
- hallway width minimum 42"
- Easy grip handles

Size and Space for Approach and Use



Pictures courtesy of Colorado State University
