Conservation Subdivision Design

In a Nutshell

A conservation subdivision is a residential subdivision designed to protect the natural features of a location while maintaining the economic viability of it as a development site. In their Conservation Subdivision Design Handbook, Heartlands Conservancy compares conservation subdivisions to golf course subdivisions, where homes are oriented around the golf course and residents are guaranteed the existence of that golf course as an amenity. In a conservation subdivision, the amenities guaranteed and preserved are the natural features of the location such as a stand of trees, a lake, or a creek.

The “How To”

A conservation subdivision protects environmentally sensitive land and concentrates development within a limited space. It promotes the preservation of open space and greenspace for watershed protection and the non-structural management of stormwater runoff in residential or mixed-use developments. It allows a developer to maximize yield while protecting water quality and the natural resources of the site. This strategy is different from a planned unit development (PUD) in that it focuses on the design of the subdivision, emphasizes the protection of environmentally sensitive land, and maximizes open space while still allowing an average number of homes and lot sizes for the entire project. Conservation subdivision design is applicable to both new development and redevelopment and is gaining popularity throughout the nation. Its purpose is to protect open space, forests, or other natural features, and set other performance requirements within community developments.

Conservation subdivision design requires careful attention to site planning to delineate areas to be protected as open space and areas to be developed as home sites. Ideally, a conservation design will identify unique, scenic, or significant natural features of a site to be preserved in large contiguous blocks. Homes and lots are then laid out to maximize visual and physical access to the open space by the residents. Homes are clustered together on smaller lots, usually in a few areas of the site to maximize each resident’s access to the open space. The combined effect of the protected open space and the clustered homes results in an average overall density no greater than the density achieved using a conventional subdivision design. An easement or other mechanism for preserving the open space ensures that the open space will not be developed.

Advantages of conservation subdivision design include:

- Reduces impervious cover and preserves green space
- Reduces pollutant loads to streams and rivers from stormwater runoff
- Protects water quality, wildlife habitat, and scenic vistas
- Increases home sales prices
- Reduces infrastructure construction costs
- Clustering of homes result in smaller lot sizes and access of all community members to a larger ecologically sensitive area that is designated as common ground
- Creates a stronger community because homes are clustered in close proximity, allowing an easy walk between neighors' houses
- Some conservation communities may provide access for public trails and greenways; others limite access

to membership within the subdivision

Key Decision Points to Implement a Conservation Subdivision Design:

1. **Define Requirements** – Determine the open space requirements, such as a minimum of 40% open space required for densities over 0.5 units per acre, as a percent of buildable area or total area. Determine the percentage of open space that is required to be in natural condition, such as 50% designated as undisturbed green space.
2. **Determine Expectations –** Define unbuildable areas in the ordinance: wetland areas, floodplains, and slopes >25%
3. **Existing Zoning** – Determine the amount to relax setbacks and the lot size requirement of existing zoning to meet open space requirements without increasing the average overall density allowed by existing zoning.
4. **Modifications –** Modification of comprehensive plans, zoning ordinances, and subdivision codes may be required to incorporate the flexibility needed to implement a conservation subdivision.
5. **Land Management** – Consider the mechanism used to manage the open space, ie. using conservation easements or common ground managed by homeowner associations.

Planning & Zoning

In most communities, passing an ordinance is necessary to facilitate a conservation subdivision design. A conservation design community ordinance can facilitate creation of such developments, rather than requiring a developer to go through an extended process of obtaining a development varience. Conservation design ordinances can assist municipalities in protecting larger tracts of open space without having to purchase land directly. Model ordinances to consider when developing a Conservation Subdivision Ordinance include:

Weldon Spring, Missouri: Development Review Guide.

Environmental Protection Agency: Open Space Development.

NC State University: Conservation Subdivision Handbook

Dollars & Cents

Research comparing conservation subdivisions to conventional subdivisions indicates that lots in conservation subdivisions can provide higher profits to developers. One study conducted in Rhode Island concludes that lots in conservation subdivisions:

- **Carry a price premium -** $13,000 to $18,000 per acre over conventional subdivision lots
- **Are cheaper to build** - average of $7,400 less to produce a lot
- **Sell more quickly** - average selling time of 9.1 months, compared to 17.0 months for conventional subdivision lots

(From “The Economics of Conservation Subdivisions: Price Premiums, Improvement Costs, and Absorption Rates”, by Rayman Mohamed. Published in Urban Affairs Review, January 2006. See page 15 for complete citation.)

A study of values and priorities in choosing a home site conducted in Michigan concludes that “nature view

from home" was by far the highest priority for residents of conservation subdivisions and conventional subdivisions. The study also concludes that conservation subdivision residents had a far higher level of satisfaction with the nearby environment than their counterparts in conventional subdivisions.

(From "Open Space Communities: Resident Perceptions, Nature Benefits, and Problems with Terminology", by Kaplan, Austin, and Kaplan. Published in the Journal of the American Planning Association, Summer 2004. See page 15 for complete citation.)

Discover More

Green Infrastructure Toolkit from the Atlanta Regional Commission

Weldon Spring Development Review Guide

Weldon Spring, Missouri Article V. Conservation Subdivision Regulations and Design Standards, Section 410.370

NC State University Conservation Subdivision Handbook

Agri-Tourism Land Use Plan: A Master Plan Amendment for the southwestern portion of St. Charles County

Case Studies

Prairie Crossing

Description

The land that is Prairie Crossing was purchased in 1987 by a group of neighbors who wanted to preserve open space and agricultural land. They formed a company with the goal of developing this beautiful 677 acres responsibly, with a total of only 359 single-family homes and 36 condominiums as opposed to 2,400 homes that were planned by another developer. The development includes an organic farm and ten miles of trails. More than 60% of the site is protected open space. George and Victoria Ranney, a husband and wife team, have guided the development of Prairie Crossing since its inception. For more information about the Prairie Crossing, please visit Prairiecrossing.com.