



# Building a Sustainable Community

## A Real-Time Account

Chris Schroeder



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### Discussion Overview

- Background about Wellspring Development Company and the Rock Hill Trails project
- Our approach and philosophy
- Examples of specific issues and challenges

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### Wellspring Background



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## Rock Hill Trails Project



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## Rock Hill Trails Project

- 170 acres
- Farm ground, pasture, and wooded
- Active streams on east and west end
- Farmstead with family cemetery



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## Vision

*Our vision is to provide people with a superior quality of life and sense of community through the creation of a sustainable residential development that is an asset to the region, protects and preserves the environment, and sets higher standards of sustainability for future developments.*

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**Rocky Hill Trails**

## Core Development Objectives



Low Impact Development



Sustainable Community



High Performance Homes

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**Rocky Hill Trails**

## CONSERVATION DESIGN WORKSHOP


14 MAY 2004

A report submitted as fulfillment of research, analysis and design for a sustainable residential development near "Sustainable" Illinois.

**CLIENT:**  
Anthony Schroeder  
Chris Schroeder

**FACULTY ADVISOR:**  
Dr. Bilgic M. Doral

**DESIGN TEAM:**  
Sarah Duttin [urban planning]  
Donovon King [urban planning]  
Janelle Green [landscape architecture]  
Elizabeth Kolbow [architecture]  
Alyssa Wreger [architecture]



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**Rocky Hill Trails**

## Water

Phase 3      Phase 2      Phase 1

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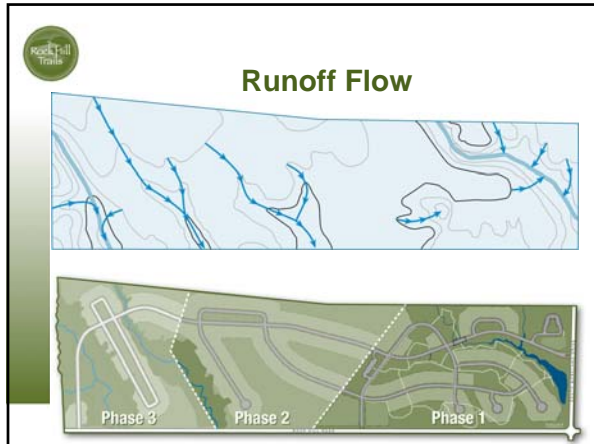
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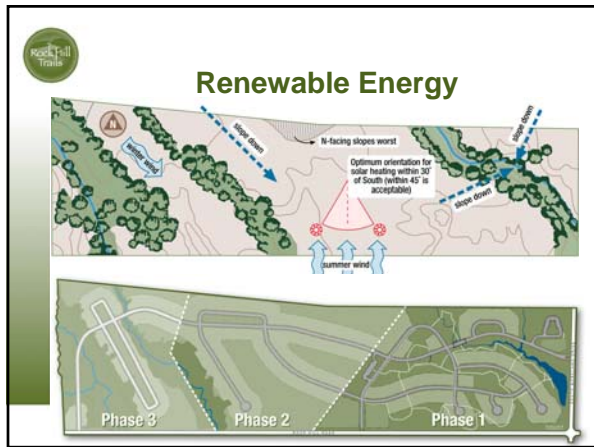
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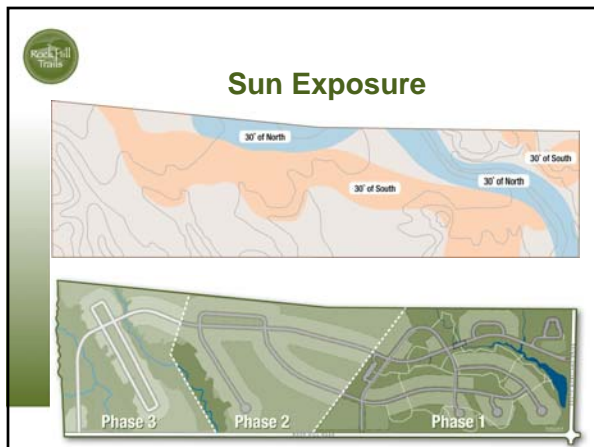
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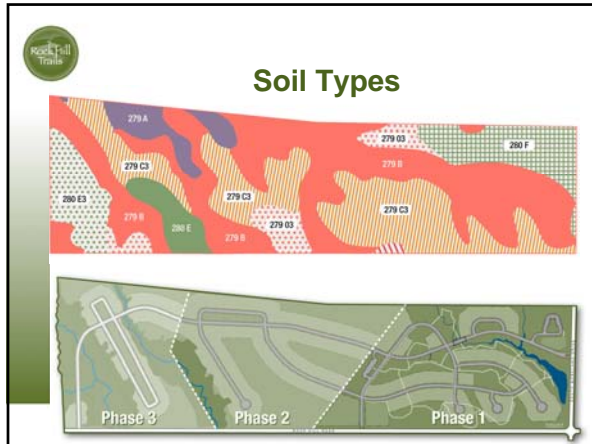
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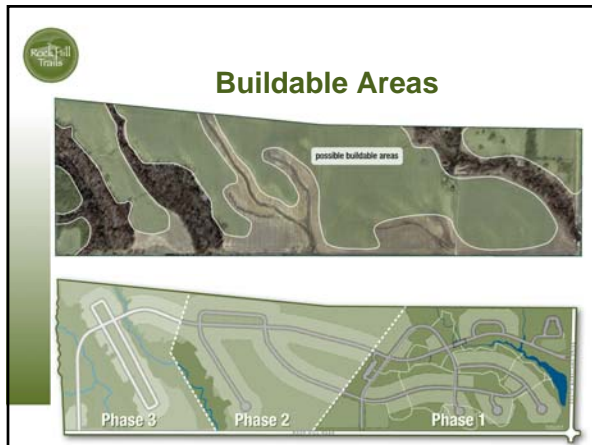
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 **Our Journey With the City**

- Initial contact
- Educational process
- Annexation terms
- Planned Use Development
- Pushing for as much flexibility as possible, but choosing our battles carefully



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 **Education Team Field Trip in May 2007**





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### Education Presentation to Planning Commission at Public Meeting

- Reinforced earlier messages at field trip within the context of city planning
- Addressed citizens who were there with concerns
  - Nature preservation
  - Storm water management

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### Education Conclusions

- Extremely important and takes time
- Would be difficult to re-create
- Takes a whole team approach
- Resources and examples available are increasing

*"This is the stuff they taught us in college, but I've never seen it since!"*

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### War Stories

A year in the life of a green developer.

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## One More Soybean Crop



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## High Efficiency Street Lighting



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## Storm Water Management

### Objectives

- Reduce storm water runoff
- Improve storm water quality

### Tactics

- Curb modifications
- Minimize storm sewers
- Vegetative filters
- Infiltration systems

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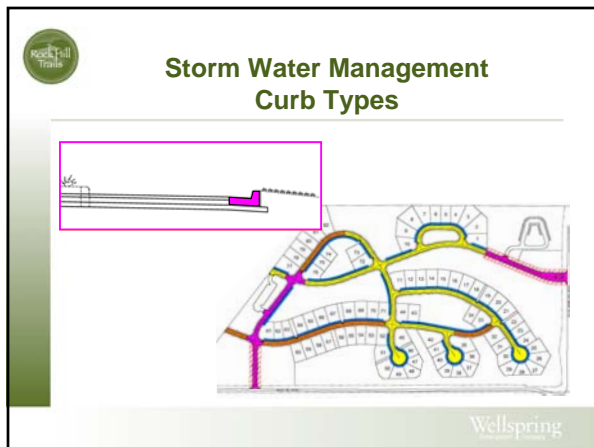
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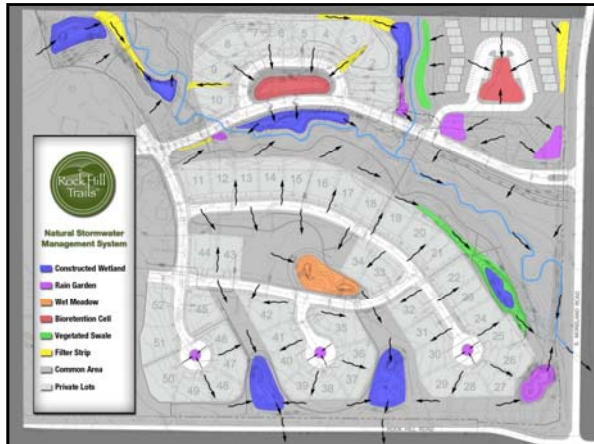
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### Mixed Use Development

- Single family residential
  - Traditional and cottages
- Multi-family town houses
- Live-work units
- Neighborhood business

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## Mixed Use Development

- A change in perspective for the City
- Different needs
  - The City needs clear definition
  - We need flexibility
- Some concepts stirred the wrong images
  - Small = low quality
  - Detached garage = pole barn
  - Condos above businesses = transient tenants

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General Features

## Natural Vegetation

### Objectives

- Storm water management
- Enhance wildlife diversity
- Aesthetics
- Low energy maintenance



### Tactics

- Native plantings in common areas
- Allow native plantings in limited parts of residential lots



*Native Prairie does not mean that you simply don't mow your grass!*

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General Features

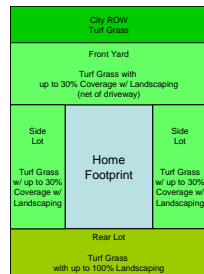
## Natural Vegetation

### Objectives

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## Selecting the Best Products



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## Challenge With Valuing Green

- Some factors are more tangible than others
  - Tangible: High efficiency HVAC
  - Intangible: Indoor air quality
- The perceptions of value are changing rapidly
  - Traditional: Maximum square footage and acreage
  - Emerging: Right-sizing and low environmental footprint
- Distinguishing between different shades of green
  - Using a couple of Energy Star appliances versus
  - Using heel trusses

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## Categories of Value

### Structural

Features or upgrades that add to the soundness and structural integrity of the home

### Cost Savings/Economic

Upgrades that provide fairly well defined payback

### Intangible Value

Features or upgrades that provide value that is difficult to measure directly

### “Save the Planet”

Similar to intangible, except focused on reducing environmental footprint

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**Sample Green Value Matrix**

Feature	Value Currently Recognized?	Value Type			
		Structural	Economic	Intangible	Save the Planet
2 X 6 construction	Y	●	●	○	○
Upgraded countertops, carpets, etc.	Y	●	●	○	○
Masonry siding	Y	●	●	○	○
HVAC	Y	○	●	●	○

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**Green Value Matrix**

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Upgraded countertops, carpets, etc.	Y	●	●	○	○
Masonry siding	Y	●	●	○	○
HVAC	Y	○	●	●	○
Insulation	Y	○	●	●	○
Energy Star Appliances	N	○	○	○	○
LED lighting	N	○	○	○	○
Cement fiberboard siding	N	●	●	○	○
Structurally Insulated Panels	N	○	○	○	○
Insulated Concrete Forms	N	●	●	○	○
Passive solar (orientation, windows, mass)	N	○	○	○	○
Natural lighting	N	○	○	○	○
Lakefront property	Y	○	○	○	○
Access to open space, trails, etc.	N	○	○	○	○
Low VOC paints and caulks	N	○	○	○	○
Socially sustainable neighborhood	N	○	○	○	○
LID development infrastructure	N	○	○	○	○
FSC Certified lumber	N	○	○	○	○
Recycled construction materials	N	○	○	○	○
Permeable pavers	N	○	○	○	○
Low flow fixtures	N	○	○	○	○
Cistern	N	○	○	○	○
Wind Turbines	N	○	○	○	○
National green certification	N	○	○	○	○

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- Future Challenges**
- Current economic conditions and housing market
  - Finding and putting the right pieces together to form a sustainable system
  - Distinguishing our product from green-washed product
  - Selling to buyers with different experiences and expectations of green
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## Summary Thoughts

- Timing is everything
  - With the City of Wood River
  - Local transportation (I-255 and Moreland)
  - Green movement/media attention
- We would not be where we are today without the investment of time for learning and team-building
- Would be more difficult if the City was not willing to invest as well
- Little changes to well established systems have far-reaching ripple effects

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