GreenHOME

Making affordable housing green

CASE STUDY
High Point

Details of project
- 1,600 units of mixed income housing
- New construction
- West Seattle, Washington
- First half completed fall 2005

Summary
- Fostered community throughout the planning process and in the physical design of the neighborhood
- Responded to local environmental and human health issues
- Developed partnerships that resulted in technical and financial assistance
Integrated Design
Planning and Landscaping
Stormwater Management

Planning & Landscaping
Aesthetics
Economics
Performance/Commissioning
Community
Energy and Water Efficiency
Indoor Air Quality
Materials Selection
Waste Management
Planning and Landscaping
Runoff Reduction

The challenge is to try to make this... develop like this, and... function like this.
Planning and Landscaping
Protection of Waterways

How High Point Drainage Works to Recharge Our Groundwater and Protect the Creek

**Houses** use different strategies to collect, infiltrate, and cleanse rainwater:
- splashblocks
- rocks
- furrows or channels
- stormwater pop-ups
- planted depressions (raingardens)
- yard drains

**Streets** slope to one side and cut in curb direct rainwater into planted and grass swales.

**Swales** collect, absorb, and filter rainwater from streets and houses into the ground before going into the city storm drain.

**Conveyance Furrows** direct water away from the house via a path of gravel and crushed rock.

**Stormwater Pop-Ups** release water into the yard.

**Swales** are designed with crossing points.

32nd Street north of Raymond Street is porous concrete to allow water to pass through into the ground before it goes to the swale.

**Yard Drains** direct rainwater to swales or a pipe.

**Splash Blocks** slow and direct water away from the house and should be kept clear of leaves.

**Porosity**
- allow water to pass through into the ground.
Planning and Landscaping
Stormwater Collection
Planning and Landscaping
Pervious Surfaces
Energy and Water Efficiency
Waste Management
Deconstruction

Planning & Landscaping
Aesthetics
Energy and Water Efficiency
Economics
Indoor Air Quality
Materials Selection
Performance/Commissioning
Community
Waste Management

Planner/Architect

Diagrams for Waste Management Deconstruction.
Waste Management

Reuse

Aesthetics

Energy

and Water

Efficiency

Economics

Planning &

Landscaping

Indoor

Air Quality

Materials

Selection

Community

Waste

Management

Community

Performance/Commissioning

Planning &

Landscaping

Indoor

Air Quality

Materials

Selection

Economics

Aesthetics

Energy

and Water

Efficiency

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Economics

Aesthetic...
Waste Management
Preservation of Trees

Giant Redwood
Appraised Value:
$37,100

Tree Protection Force

High Point
\[\text{Street Sign}^{\text{High Point}}\]
Waste Management
Reuse of Trees
Community Open Space

Aesthetics
Energy and Water Efficiency
Economics
Indoor Air Quality
Materials Selection
Waste Management
Planning & Landscaping
Community
Performance/Commissioning

Community Open Space

Planning & Landscaping
Economics
Indoor Air Quality
Materials Selection
Waste Management

Community

Energy and Water Efficiency

Planningspace

Planning & Landscaping
Economics
Indoor Air Quality
Materials Selection
Waste Management

Community

Performance/Commissioning

Community Open Space

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Performance/Commissioning

Community Open Space

Planning & Landscaping
Economics
Indoor Air Quality
Materials Selection
Waste Management

Community

Performance/Commissioning
Community
Communal Space
Community
Pedestrian Friendly
Community
Public Facilities
Economics
Savings by Energy Use

Annual utility bill estimates

$2,000
$1,800
$1,600
$1,400
$1,200
$1,000
$800
$600
$400
$200
$0

<table>
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<tr>
<th></th>
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Estimated annual savings for 4-person household in 3-bedroom unit: $370
Economics
Savings by Fixture Type

- Beyond-code Insulation, fans: $15
- Energy saving lighting: $25
- New Energy Star appliances: $35
- Water-conserving fixtures: $54
- Front-loading washers: $106
- Tankless hot water heaters: $135

Estimated annual savings for 4-person household in 3-bedroom unit: $370
Sustainable Goals

- The design team from High Point focused on the needs of its residents and designed a community where their residents could thrive.
- What sustainable goals are a priority for your organization on this project?
Green Building and You

- Opportunities
- Barriers
- Sustainable Goals
- Challenges
- Collaboration
Green Building and You
Opportunities

What are your organization’s goals and how are they better served by green?
What are some of the barriers you see to greening your projects?
Green Building and You
Sustainable Goals

What sustainable goals are a priority for your organization on this project?
Green Building and You

Challenges

What challenges might you face?

- Adopting an integrated design process?
- Finding a team with experience in green practices?
- Addressing resistance and cynicism?
- Selecting and finding green materials and products?
Green Building and You
Collaboration

Who can you work with to support your sustainable goals?

- Government agencies
- Financial institutions
- Trade associations
- Education, training & technical assistance providers
- Green building professionals