



## Program Highlights

### Benefits/Cost Savings

- **Cost savings:**  
\$245 per house;  
\$14,736 for total project
- 55% recycling rate
- **Tons recycled:**  
2.2 tons per house;  
132.7 tons for total project

### Materials Recycled\*

- **Wood waste:**  
2,200 pounds per house;  
66 tons for total project
- **Drywall:**  
2,200 pounds per house;  
66 tons for total project
- **Cardboard:**  
17 pounds per house;  
0.51 tons for total project
- **Copper:**  
7.5 pounds per house;  
0.23 tons for total project

### Project Statistics

- Size: 120,000 sq. ft.  
(60 homes; average size 2,000 sq. ft.)
- Location: Issaquah, WA

### General Contractor

Lozier Homes  
1203 114th Ave. SE  
Bellevue, WA 98004  
(425) 454-8690

\*Note: amounts are estimates.



A new Lozier home in the Klahanie development in Issaquah. Job-site recycling on the entire 60-home project saved nearly \$15,000.

# Cutting the Scrap: Houses With Less Waste

For the Klahanie housing development in Issaquah, it was finding solutions to small challenges that added up to big savings. How to separate wood scraps from garbage most efficiently? How many useful pieces can be had from a 2x6 piece of lumber or a sheet of plywood? How to reduce the use of building materials without reducing living space or quality? Here are the solutions Lozier Homes found.

### Corralling Waste Wood

Scott Hamann, Construction Manager for Lozier Homes, separated the wood waste from the rest of the building waste using a corral and sort system.

Each house site had its own 8x8 foot corral constructed from utility grade 1x4s and wire mesh. When the crew was ready to haul out the waste, they took the bin apart and threw the waste into a truck.

Hamann said this took no extra time and resulted in 50% to 60% of the waste being recycled.

On the Klahanie project, both wood waste and garbage were hauled directly to the Regional Disposal Company site in Renton. Using the corrals

*“Every builder wants to put his best foot forward. Recycling means less in the landfill and a little savings for us. So we do it.”*

— Scott Hamann, Lozier Homes  
Construction Manager

instead of renting dumpsters resulted in avoiding the monthly rental cost of extra wood waste dumpsters at each of the development's sixty houses, a significant savings.

### **Cutting the Scrap**

Lozier architects worked carefully on product design to reduce scrap. Dimensions throughout the house were even multiples of two feet so that a 4x8 sheet of plywood or other dimensional lumber could be used with a minimum of waste. Each sheet of sub-floor was assigned a number and then laid out by sheet on the plans. Framers were given a list which showed how and where larger pieces were to be cut and where leftover pieces could be used. They used the same numbering system for beam stock and each beam was ordered to a length that would produce the least amount of waste.

### **Shrinking the Footprint**

Framing with 2x4's instead of 2x6's meant Lozier was able to decrease the footprint of the Klahanie houses without decreasing living space or quality. To make up for less wall insulation, extra insulation was added in the attic. According to project architect Paul Burckhard, each house was about 70 square feet smaller due to the narrower exterior walls. With a 60-house project, that added up to a savings of over 4,000 square feet – the equivalent of two houses worth of material.

All the steps Lozier took added up to over 130 tons of recycled construction waste, resulting in nearly \$15,000 in savings for the whole project.

### **King County Offers Free Technical Assistance to Construction, Demolition and Landclearing Contractors**

- Assistance developing comprehensive job-site waste management plans
- *Construction Recycling Directory* - a listing of area recyclers
- *Contractors' Guide to Preventing Waste and Recycling* - a how-to guide
- Case studies highlighting successful job-site programs
- *WasteSpec*\*- a manual of model specifications for construction waste reduction, reuse and recycling. This manual provides architects and engineers model specification language for job-site recycling.
- Examples of contract language specifying recycling and waste management requirements from job-sites throughout King County
- Green Works/Construction Works public recognition program

\* Developed by Triangle J Council of Governments; cost \$25.00

**Call the King County Solid Waste Division  
at (206) 296-8480 for assistance.**

### **For more information:**

#### **King County**

*King County Construction*

*Recycling Directory*

Theresa Koppang

*King County*

*Solid Waste Division*

(206) 296-8480

1-800-833-6388 (TTY Relay)

#### **City of Seattle**

*Business and Industry*

*Recycling Venture*

(206) 389-7304

#### **General Contractor**

Scott Hamann,

Construction Manager,

*Lozier Homes*

(206) 454-8690

#### **Case Study Consultants**

*O'Brien & Company*

(425) 842-8995

This material will be provided in alternate formats upon request.

**CONSTRUCTION  
RECYCLING  
WORKS**  
*It's Good Business*