

**Sector:** Residential and Commercial

**Category/Practice:** Resource Efficiency / Construction Waste Recycling

## Proposed GB Practice

### Description

Builder must submit a construction waste management (CWM) plan before the project begins that includes recycling of concrete, wood, metal and cardboard.

The plan must be implemented and conspicuously posted on the construction site.

### Applicability

New Construction: Applies

Existing Buildings/Additions: Does not apply (address with education, encourage recycling)

Existing Buildings/Alterations: Does not apply (address with education, encourage recycling)

### Intent

Divert construction waste from landfill

## Benefits and Costs

### Triple Bottom Line Benefits

People: N/A

### Economic:

- The direct, first cost impact on the project may be a small savings, neutral, or a small increase.
- Long-term savings to the community related to extending the life of the landfill.
- Support local business by expanding the market for recycled-materials haulers and providing materials for local composting and scrap metal recycling facilities.

### Environment:

- Reduced demand for virgin materials
- Reduced resource use for processing by reusing what has already been made
- Reduced greenhouse gas (GHG)—methane, carbon dioxide—emissions due to fewer organic materials (wood, cardboard) decomposing in the landfill. GHG emissions from hauling and reprocessing materials will, to some degree, offset those gained from keeping them out of the landfill.

### Costs Passed to Owner

As noted above, the direct first cost of construction waste recycling is anticipated to be “very low;” it net be a small added cost, a savings, or neutral impact compared with landfill disposal.

### **Lost Opportunity**

Construction materials dumped in the landfill are much less economically feasible to recover in the future.

## **Implementation**

### **Availability of Products and/or Services**

Several local haulers currently provide customized recycling services for Fort Collins construction projects. Local drop-off sites exist for recycling metals, wood, concrete, and cardboard, should builders wish to self-haul these materials.

### **Practicality**

This measure can be relatively easily implemented. Initially, builders will have to spend time to train employees and subcontractors about the recycling protocol. This will get easier with each project. Smaller projects may have to self-haul materials, requiring additional time and resources. However, the reduction in the cost of trash service for the project and financial returns for recycling metals will ease implementation cost impacts on the builder. The proposed requirement is designed to put minimal paperwork and tracking burden on the builder.

### **Certification Issues**

None

### **Enforcement Procedures**

Permit application/plan review: Plan reviewers check the waste management plan

Field inspection: Building inspectors verify that recycling is being done onsite during all inspection visits. On-site inspection will include visual verification of recycling to confirm that containers are on-site, appropriately labeled and not contaminated with trash.

Certificate of Occupancy: N/A

### **Support Materials Needs**

City will develop a template for the CWM plan. Minimum information likely required in the plan includes:

- Materials to be recycled
- How recycling will be handled: sizes of containers, who will haul materials to recycling sites
- When recycling containers will be on site (e.g., concrete recycling from washout following pour of the footings and foundation)
- How contamination of the recycling containers will be avoided

Example signage would be helpful.

### **Training Needs - Industry**

Training will be provided as part of mandatory training for all contractors on the recently adopted Fort Collins building codes and green amendments.

### **Training Needs - Staff**

Staff training will be needed for consistent enforcement.

## Background

### Current Practice

Most construction waste is hauled to the landfill.

### Context

In 2006, City Council approved a community waste diversion goal of 50% by 2010. As of 2010, the City has a diversion rate of 38% (not including concrete/asphalt). Diverting construction waste will help extend the life of the landfill, reduce carbon emissions, and help the City reach its diversion goals.

Some builders in the community who are working on green building and LEED-certified projects have been able to recycle 75-95% of construction waste. That includes recycling more types of material than the four included in this proposed amendment.

Several communities throughout the country require solid waste diversion for both residential and commercial construction projects.

This proposal intentionally sets no specific target for the percentage of construction waste diverted from the landfill. It sets requirements only for materials for which a local recycling infrastructure already exists. It is intended to include an educational component. Developing a CWM plan raises awareness about recycling opportunities. Implementing the plan provides experience and supports further development of local infrastructure.

### Related Green Building Practices

N/A

## Known Objections

- Lack of space on some construction sites to accommodate recycling containers
- A quantified recycling goal (e.g., volume percentage of total job waste) is needed for this proposal to be meaningful.
- Training and administration costs for the builder
- Time lost training staff and contractors