



Zero Waste Advisory Commission

October 8, 2014

DRAFT Construction Material Recycling Ordinance



OUTLINE

- Background
- Process & Schedule
- Ordinance Principles
- Ordinance Intent
 - Affected Projects
 - Qualified Processors
 - Hauler Reporting
 - Penalties

BACKGROUND

Resolution No. 20100930-023

Instructs City Manager to investigate:

- 1) Requiring all C&D sites to recycle or salvage
- 2) Creating incentives for recycling and salvaging





BACKGROUND

ARR Master Plan, Section 9.10

Construction Materials Management:

- 1) Adopt policies to increase reuse, recycling and composting of products used in additions, renovations, and new construction
- 2) Require large-scale project building-permits holders to provide diversion plans
- 3) Transition to higher rates of diversion requirements
- 4) Register C&D debris facilities and haulers

Ordinance Development: Process & Schedule

Date	Meeting	Description
Dec. 2013 July 2014	C&D Committee	* Propose schedule * Summarize similar ordinances, research
August 8 & 14	Stakeholders	Public input on ordinance parameters
August 28	C&D Committee	Approved staff-proposed ordinance intent
October 8	ZWAC	Consider C&D Committee-approved ordinance intent
November 12	ZWAC	Considers proposed ordinance intent
Nov/Dec	City Council	Adopts proposed ordinance intent

Ordinance Development: Public Engagement

- 12 municipalities and counties
- City departments
 - Austin Energy Green Building
 - Austin Public Works Department
 - Planning & Development Review Department
 - Office of Sustainability
 - Economic Development

Ordinance Development: Public Engagement

- 6 professional associations
- 25 industry members
 - Construction
 - Hauling
 - Processing
- 40+ at Stakeholder Meetings

PRINCIPLES

- **Support:** Green building initiatives for construction material management
- **Flexible:** Performance-based, rather than prescriptive
- **Inclusive:** Support hierarchy of beneficial use
- **Reference:** Rather than replicate other city, state, federal, or industry policies
- **Integrate:** Fit into existing practices

PROPOSED ORDINANCE CONCEPT

- Affected Project must either:
 - Dispose less than 2.5 lbs/sq ft; or
 - Divert at least 50% of C&D materials
- Affected Project acknowledges requirements prior to receiving permit
- Affected Project reports after construction
- Provisions to allow for “Qualified Processors”
- Performance-based penalty

AFFECTED PROJECTS

Demolition

1.1. Commercial or Multifamily Demolition project of any size that requires a permit

Rationale:

- Include commercial demolition – large material generation per square foot
- Exempt single-family residential demolition – material tends to be less recyclable

AFFECTED PROJECTS

Construction or Renovation

1.2. New construction or renovation project permitted for 5,000 or more square feet

Rationale

- Larger projects are better equipped to absorb costs to administer, educate crews and monitor
- Per PDRD FY2013 permitting data:
 - 12% of all projects \geq 5,000 sq ft
 - 76% of total sq ft

AFFECTED PROJECTS

Exempt Small Construction or Renovation

Small projects:

- More cost per ton diverted
- Construction contractors
 - Carryover materials rather than discard them
 - Consolidate discards from several projects
- Containers are more vulnerable to unauthorized use and contamination
- Quick Turnaround <5,000 sq ft

AFFECTED PROJECTS

Exempted Projects

*1.3 Exempt projects that require only one trade
(e.g., plumbing, electrical, mechanical, irrigation)*

Rationale

- Smaller amounts of recyclable materials or reusable components
- Market forces determine whether to recover

AFFECTED PROJECT REQUIREMENTS

2.1. Permittee shall either:

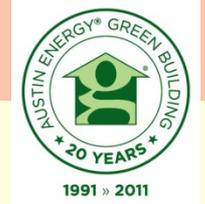
2.1.1. Dispose less than 2.5 lbs/sq ft; or

2.1.2. Divert at least 50% of C&D materials

Eligible diversion:

*Documented quantities of construction materials
put to Beneficial Use on or off site*

Austin Energy Green Building Basic Requirement



50% Diversion, 4 Materials:

- Recycle or salvage at least 50% of construction and demolition waste, excluding excavated soil, stone, and land clearing debris
- Diverted material must include at least four material streams

LEED for Homes

Construction Waste Management Credit



- Reduced construction waste.
Dispose 2.5 pounds or less per square foot of conditioned floor area.

Industry average is 4.2 pounds per square foot, per National Association of Home Builders' Research Center.

DEFINITIONS

- **Construction or Demolition (C&D) Materials**
 - Non-hazardous materials that are directly or indirectly the by-products of construction work or that result from demolition of buildings and other structures
 - Includes, but not limited to, concrete, corrugated cartons, gypsum wallboard, metal, paper, paving, plastics, and wood
 - Excludes excavated soil, stone, and land-clearing debris

DEFINITIONS

- **Beneficial Use**

- Includes salvage, reuse, or processing into a material or product with an open-market value
- Does not include use as a fuel or alternative daily landfill cover

AFFECTED PROJECT REQUIREMENTS

Pre-Construction Affirmation

2.2 Prior to permit issuance, permit applicant acknowledges that the project is subject to diversion requirements

Rationale

- New program, no surprises
- Alert affected City departments

AFFECTED PROJECT REQUIREMENTS

Post-Construction Report

2.3 After construction, permittee reports:

- *Documented tons of materials & components:*
 - *Diverted for Beneficial Use*
 - *Disposed*

AFFECTED PROJECT REQUIREMENTS

Post-Construction Report

2.3.2 Report documented tons:

- 1. Reused onsite*
- 2. Diverted by processors by load*
- 3. Disposed by processors by load*
- 4. Delivered to disposal facility by load*

QUALIFIED PROCESSORS

Purpose:

- Reduce administrative costs
- Simplifies processor tracking and reporting
- Similar to pilot credit for LEED
- Optional



DEFINITIONS

- ***Qualified Processor***

Facility that meets certain requirements including documenting its *Facility-Average Diversion Rate*

- ***Facility-Average Diversion Rate***

Percentage of all incoming C&D material over a period of time that a processing facility diverts for *Beneficial Use*

QUALIFIED PROCESSORS REQUIREMENTS

- 4.1. Meet state requirements*
- 4.2. Report its Facility-Average Diversion Rate*
- 4.3. Meet verification standards*
- 4.4. Meet minimum Facility-Average Diversion Rate*

AFFECTED PROJECT REQUIREMENTS

Post-Construction Report

2.3.1 For materials delivered to Qualified Processors (QP), report:

2.3.1.1. Documented tons delivered to each QP

2.3.1.2. Each QP's Facility-Average Diversion Rate

HAULERS

3.2. A licensed hauler shall report the quantities of C&D Materials that it hauls directly to each of the following:

3.2.1. Disposal facilities

3.2.2. Diversion facilities

Rationale

- Separates reporting of C&D & URO-related material

PENALTY

Intent:

- Performance-based penalty
- Do NOT:
 - Withhold certificate of occupancy
 - Require upfront deposit
- **Challenge:** What penalty is compelling and not merely the cost of doing business?

PENALTY

Case Study: City of Chicago

Project Size	Penalty Rate*
< 10,000 sq ft	\$500
≥ 10,000 sq ft	\$1,000
<i>*per percentage point less than 50%</i>	

PENALTY

Chicago Examples

Target Diversion: 50%

Actual Diversion: 15%

Example	1	2
Project Size (sq ft)	5,000	10,000
Penalty per percentage point	\$500	\$1000
% Defficiency	35%	35%
Total Penalty	\$17,500	\$35,000

PENALTY

*Permittee pays the **greater** of the following:*

*5.1. \$__ per **ton** project should have diverted*

*5.2. \$__ per **percentage point** project should have diverted*

*5.3. greater rate per **percentage point** for larger projects*

Next Steps



Questions

