



# **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%
<b>Total Penalty</b>	<b>\$17,500</b>	<b>\$35,000</b>

# 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

