



To: Mayor and Council

From: Bob Gedert, Solid Waste Services Director

CC: Marc A. Ott, City Manager
Robert D. Goode, Assistant City Manager

Date: March 16, 2011

Subject: **Resolution 20100930-023, Construction & Demolition Recycling**

The purpose of this memo is to provide Council with staff's preliminary review and recommended next steps regarding Council Resolution 20100930-023 which directed the City Manager to investigate the possibility of (1) requiring all construction sites to recycle construction and demolition (C&D) material, (2) creating incentives for C&D recycling, (3) creating fee waivers based on economic hardship, and (4) applying a portion of demolition and relocation fees toward historic preservation reviews.

Staff from the Solid Waste Services Department (SWS), Planning and Development Review Department (PDRD), Austin Energy (AE), and Public Works (PW) held two meetings to discuss Council's direction. It became immediately clear that Council's interest in requiring C&D recycling of all construction projects in the City would require cross-coordination among several departments and would most significantly impact the Planning and Development Review Department (PDRD).

Background

In 1991, the City of Austin established the Green Building Program, the first comprehensive program in the United States designed to encourage sustainable building practices in residential, commercial and municipal construction. Similar to the United States Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED), the Austin Energy Green Building (AEGB) program assigns ratings to projects based on a variety of environmental factors including energy efficiency, water efficiency, and construction and demolition recycling. Since 2004, all projects are required to achieve a minimum C&D recycling rate of 50 percent to achieve certification by AEGB. Since that time, 122 commercial or multifamily projects citywide achieved an AEGB rating and over 123,955 tons of material have been diverted.

For municipal construction projects, the Austin City Council passed Resolution 000608-43 in 2000, the first resolution regarding LEED certification for City projects. In 2007, Council passed Resolution 20071129-045 regarding Municipal Green Buildings which identified scope and budget requirements for new construction and renovation projects to achieve LEED certification or incorporate sustainability criteria. To date, the City has constructed eleven LEED certified capital improvement projects (CIP), including the City Hall and Gus Garcia Recreation Center.

There are more than a dozen projects registered for LEED certification. The Public Works Department included construction waste management specifications in all LEED projects and is now including similar specifications in all municipal projects including infrastructure and road reconstruction. For example, the Gus Garcia Recreation Center recycled 923 tons (86% of total waste) of construction waste. Additionally, Austin-Bergstrom International Airport's Remain Over Night Phase I, a non-LEED project, recycled 14,713 tons of construction waste and reused 319,152 tons of on-site fill material diverting almost 99% of construction waste from the landfill.

More recently, the City adopted the Zero Waste Strategic Plan and established the goal of achieving a 90% reduction in the amount of waste sent to landfills by 2040. C&D recycling is a key component to achieving the City's Zero Waste goals. According to the Texas Commission on Environmental Quality's (TCEQ) 2008 *Municipal Solid Waste in Texas: A Year in Review*, approximately 20% of the waste going to local landfills consisted of C&D debris. As a result, preliminary analysis from the SWS Master Plan includes recommendations to increase C&D Recycling as means of significantly affecting the City's diversion rate.

The City's efforts to increase C&D recycling among municipal construction projects and the AEGB program played a significant role in aiding developers, construction managers, design teams and owners of commercial and multifamily projects in gaining valuable C&D recycling experience. These efforts also contributed to development of the infrastructure necessary to support these efforts and establish a firm foundation for Austin's Zero Waste future.

Preliminary Staff Review

When evaluating a citywide requirement for C&D recycling for construction projects, the first issue staff considered was whether or not Austin had capacity to handle the volume of C&D recycling materials expected. During FY2009, AEGB rated projects diverted approximately 44,000 tons of materials. According to the SWS Master Plan's preliminary assessment of C&D recycling regional capacity, C&D recycling service providers are currently able to process approximately 84,000 tons per year and stated that they are processing under capacity. Additionally, processing capacity over the long-term is expected to increase through facility expansions and private sector development. Currently, there seems to be adequate capacity to process C&D debris and more on the way. Staff therefore focused on identifying other challenges and questions, including:

- Determining applicability for projects:
 - Based on size
 - Based on type of construction activity
 - Demolition
 - New construction
 - Remodels (e.g. tenant improvement only or interior/exterior remodels)
 - Based on type of use
 - Residential; AEGB's experience with custom or one-off residential projects is that it is very difficult and relatively more expensive to require a set level of diversion. This needs to be explored more in depth with stakeholders. The initial requirements for residential may target production builders or may focus on specific material categories such as drywall or metals recycling.

- Multi-family
 - Commercial/Mixed Use
 - Industrial
- On-site Practices for C&D Recycling
 - Single Stream (e.g. combining materials into one dumpster)
 - Source separated (e.g. dedicated dumpsters based on material type)
- Space limitations on construction sites, particularly in high density neighborhoods
- Standardizing volume diversion data submitted by service providers
- Identifying target materials
- Measuring on-site material management options (such as on-site mulching of land clearing debris)
- Equal or lower costs in comparison to landfilling (costs for disposal versus recycling)
- Developing effective incentives (e.g. modifying permitting fees or creating deposit systems)
- Identifying current standard practice in our local market, to establish a baseline
- Establishing strong education and outreach programs that include technical assistance for developers and construction managers
- Amending permitting requirements and providing for effective enforcement
 - Monitoring data
 - Identifying appropriate enforcement mechanisms tied to inspections or permitting

Stakeholder input and appropriate planning will be essential to address these challenges and develop solutions. It is important to note, however, that the stakeholder process and development of a citywide C&D recycling ordinance will require additional staff in both PDRD and SWS. Current staffing levels are not able to handle the work load anticipated by the stakeholder process, cross departmental coordination, and technical research required for this effort. Additionally, the more complex an ordinance becomes, the higher the demand placed on staffing levels. It will be essential for staff to consider and analyze the impact to staffing levels to adequately enforce a citywide C&D recycling ordinance.

Next Steps

Staff intends to continue working with builders, designers, and the development community to increase C&D recycling opportunities in the Austin area through increased education, outreach, and promotion. Events like the annual Regional C&D Summit co-sponsored by the Capital Area Council of Governments, Austin Energy, and SWS provide the development community with excellent opportunities to share ideas, resources, experiences, and best practices. The summit could also be used as an opportunity to suggest improvements to existing C&D recycling rules, policies, and practices.

In Spring 2013, the City would begin the stakeholder process to develop recommendations, which could include amending the City Code to require C&D recycling of construction projects. Staff will research best practices nationally and use the AEGP Program's current C&D recycling standards as a starting point. Staff would then report back to Council in Fall 2013. The Planning and Development Review Department and Solid Waste Services Department would share responsibility for the stakeholder process.

If you have any questions, please contact Greg Guernsey at 974-2387 or Bob Gedert at 974-1926.