Local Schools Salvage $128,555 in Discarded Material

Summer vacation is always a race against the clock to complete school renovations before the bell rings for fall classes. Such was the case for Woburn High School teaching staff, with one week to pack up decades of accumulated materials in a move to the new school. Their old school was scheduled to become a new football field for the often-victorious Woburn Tanners. One small detail stood in the way of the demolition contractor: over 150 tons of furniture, equipment, books and debris left behind in the mad scramble to vacate premises.

When Costello Dismantling brought in greenGoat, the volume of discarded material was choking abatement efforts, and costing the team a lot of time.

Distributing word through Department of Education and others, greenGoat scheduled daily tours for other schools, local non-profits, and MIT’s Student Art Association.

The resulting 30 tons of recovered material ironically equalled the weight of discarded paper: books, student files, and teaching materials.

### Project Summary

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>7/07/06 - 7/26/06</th>
</tr>
</thead>
<tbody>
<tr>
<td>Square Feet:</td>
<td>280,000 s.f.</td>
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<table>
<thead>
<tr>
<th>Diversion Results</th>
<th>Tons</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio Visual Equip.</td>
<td>1.44</td>
<td>$4,860</td>
</tr>
<tr>
<td>Class Accessories</td>
<td>9.46</td>
<td>$51,205</td>
</tr>
<tr>
<td>Furniture</td>
<td>17.30</td>
<td>$65,915</td>
</tr>
<tr>
<td>Kitchen</td>
<td>.29</td>
<td>$1,150</td>
</tr>
<tr>
<td>Art and Science Equip.</td>
<td>1.55</td>
<td>$5,425</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>30.05</strong></td>
<td><strong>$128,555</strong></td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Cost Benefit</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Avoided Disposal</td>
<td>$3,000</td>
</tr>
<tr>
<td>Avoided Transport</td>
<td>$800</td>
</tr>
<tr>
<td>Material value</td>
<td>$128,555</td>
</tr>
<tr>
<td>Added labor</td>
<td>($36,000)</td>
</tr>
</tbody>
</table>

1. No recipient actually paid for the items. This is simply an estimate of value.
2. Based on tip fee of $100/ton for 30 tons
3. Based RT of 24 miles and $80/hour
4. Estimated 50% of retail for items in good condition. 20% retail for ‘very’ used.
5. Assumes 15 people for three weeks working half days at prevailing wage

### Project Description

The project entailed total abatement and demolition of the old high school. Preparation for the move took a year, during which preliminary cleaning and disposal took place. When crunch time finally arrived, the teachers’ classroom catalogues made a mile-long inventory for movers.

What remained was mind-boggling: desks, furniture, weight machines, band uniforms, and books. Student lockers still spilled hoodies and notebooks into the hallways. Chemistry glassware and biology slides sat waiting. With three weeks to go and the clock ticking, tour after tour of schools, churches, and a handful of resellers came with trucks and tools.

Trying to keep order in the chaos, each visitor needed to give evidence of certificate of insurance before harvesting any items. Off to one side, greenGoat kept a catalog of who had ‘dibs’ on what, stickering items as tours progressed, telling recipients to make note of the room numbers so that items would be adopted in orderly fashion.

This more-or-less worked …
Spotlight on Safety

There are many angles to the story, but The Goat wants to reflect on how a normal human being reacts to an opportunity like the one at Woburn High School.

The emotional arc of tour goers was: curiosity and the thrill of voyeurism first, then either giddy collection of goods or subdued silence (followed by anger). We tried to imagine what had moved to the new school. Many shook their heads, thinking of money spent on useful items destined for landfill.

While a great marketing plan always contains aggressive message distribution, uncontrolled distribution is never a good thing with a looming deadline and a live construction site. As word of lucre started to spread, safety became a bigger issue, and we ultimately had to shut the door on ‘volunteer marketing’.

In a cavernous building, tour containment is a big challenge. Fortunately, the contractor lent a hand in answering questions on pickup, insurance, and other requirements.

How Schools are Built

One of the most obvious traps in a project this size is finding markets. School administrators made great efforts to redistribute items to the school district and surrounding community. But there is no way that local markets could ever absorb the proceeds from a school this size.

We called the Mass. School Building Authority, the Department of Education, and the Mass. Association of School Superintendents for help. All had great ideas, many questions, and (in the case of MSBA), a public comment period for new wording on sustainable school spec guidelines.

It seems that in the ‘old days’ of school building, the budget was in one big pool. If there were cost overruns (which was usually the case), this ate into the furniture and equipment money. The state then decided to segregate that budget into its own ‘hold back’. While this guards against unfurnished classrooms, schools are punished for making existing stock last … losing that funding for when it might be needed more.

And since most school renovations take place over the summer, getting in touch with facility managers who might have been able to use the stock coming from WHS was all the more challenging.

Interestingly, charter schools responded in much bigger numbers than traditional public schools. Could their budgeting process hold better incentives for conservation? Perhaps – the building committee for the Atrium school was headed up by a parent … who happened to also be savvy to green building and greenGoat’s role in lowering both disposal costs and (for the recipient) procurement costs.

Lessons Learned in Woburn

Ways to maximize savings on any site:

- Make sure the demo walkthrough is done when the site is exactly as full / empty as it will be upon turnover. If bids are based on imperfect site documentation, misunderstandings follow.
- Taking building inventory does not need to wait for a renovation … building materials are assets. Each has a market and method of deinstallation. Know what you have, what it’s worth, and who might want it before the demolition bid goes out.
- Paper, metal, and vintage furniture are revenue streams. Don’t let go of a fundraising opportunity.
- Make sure that budget and policy both support the specification – the state is sending mixed signals by specifying green but punishing those who stretch materials for another year.
- Think beyond your borders … in a densely populated region, there are many outstretched hands. Think out to the next layer of organization if you’ve tapped the school district completely.
- No one can save everything, but have the procurement officer do a thorough walkthrough to identify lapses. If you don’t, the press will!

Resource Management
greenGoat
PO Box 441911 (Somerville, MA 02144)
Contact: Amy Bauman
Phone: 617-666-5253
Email: abauman@greengoat.org
Web Site: www.greengoat.org

Demolition Contractor
Costello Dismantling
Middleboro, MA
508-946-0880

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