

Case Study

Simons
Construction Ltd

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PRACTICALITIES

How it works

Basic waste segregation into

General Waste
(Non-hazardous)

Inert Waste

Mixed Metals

(+ Hazardous waste separated out)

“20/40/60 Rule”

Total Waste

Down 20%

Costs

Down 40%

Waste to Landfill

Down 60%

Construction waste composition

Hard material	32%
Timber	24%
Plastics	15%
Cast formless	9%
Gypsum material	6%
Metals	6%
Paper / card	4%
Bio-organic	3%
Soil	1%
Chemicals / paint	0.3%

Timber		24%
Plastics	Active	15%
Gypsum	52%	6%
Paper / card		4%
Bio-organic		3%

Hard material	Inert	32%
Cast formless	42%	9%
Soil		1%
Metals		6%
Chemicals / paint		0.3%

Cost of segregated waste.

General waste: £75 / tonne
(Similar to un-segregated)
Inert waste: £15 / tonne
(About £100-£120 for a 8 yard skip
that takes about 7-8 tonnes)
Metals: at least free
(You may get some money back!)
Hazardous waste : £600 / tonne

Cost of segregated waste per tonne:

52% @ £75 / tonne = £39.00
42% @ £15 / tonne = £ 6.30
6% @ £0 / tonne = £ 0.00
0.3% @ £600 / tonne = £ 1.80

Total = £47.10 / tonne

Saving = £27.90 / tonne
(37%)

In the near future:

28% @ £100 / tonne = £28.00
24% @ £25 / tonne = £ 6.00
42% @ £15 / tonne = £ 6.30
6% @ £0 / tonne = £ 0.00
0.3% @ £800 / tonne = £ 2.40

Total = £ 42.70 / tonne

Saving = £57.30 / tonne
(57%)

Focussing on waste management on site will also **reduce** the total amount of waste the site generates.

Sites with Waste Segregation also tend to have :

- Careful storage and handling of materials
- Re-use of off-cuts, etc
- Return of unused materials to stockpiles

Reduced need to over-order
(Cleaner, tidier, safer sites)

“Normal” over-order
5%
Simons “direct- buy” £22m of materials each year.
5% = £1,100,000
Accurate quantities
+ Over-order
= Building + Skips

Effective Waste Segregation gives a Cost Saving of
At least 25%
Good Materials Management gives a Waste Reduction of
At least 20%

Waste to landfill has been reduced by 60%
(Waste reduced to 80% of original and half recycled, i.e. only 40% of original to landfill)
The total cost to the project of removing waste has nearly halved
($0.75 \times 0.80 = 0.6$, ie min. 40% cost saving)

“20/40/60 Rule”
Total Waste
Down 20%
Costs
Down 40%
Waste to Landfill
Down 60%

Lincoln Yard
1999-2002
Total Waste
Down 73%
Costs
Down 76%
Waste to Landfill
Down 87%

Sweet Street, Leeds
26,000 sq. ft. office block, £8.3m
Segregation into : active, inert, timber, metals and hazardous.
Total volume of waste : 1382 cu.m.
Waste / £100k : 16.6 cu.m.
CBPP KPI rating : 76%

Sherwood Park, Nottingham
92 bedroom hotel and conference centre with extensive car parking and landscaping, £12.1m
Segregation into active, inert, plasterboard, metals, timber and hazardous
Total Waste : 405 tonnes
(68% recycling rate achieved)
Waste / £100k = 13.5 cu.m
CBPP KPI rating : 80%

Simons Construction Ltd
£240m turnover

2003 : 0.4% = £960,000
2005 : 0.5% = £1,200,000
2008 : 0.6% = £1,440,000
2010 : ??

Potential savings :

Now : 40% saving on £1,200,000
£480,000+
2008 : 60% saving on £1,440,000
£850,000+

Simons carry out environmental monitoring of their construction sites, including identifying on-site segregation.

At any time, between 25% and 40% of sites (by turnover) are segregating waste on site to some extent (& this is growing).

£1,200,000 basic cost
25% segregating
50% efficiency (ie only 20% saving)

Cost Saving
 $£1,200,000 \times 0.25 \times 0.20 =$
£60,000

Simons carry out environmental monitoring of their construction sites, including identifying on-site segregation.

At any time, between 25% and 40% of sites (by turnover) are segregating waste on site to some extent (& this is growing).

£1,200,000 basic cost
40% segregating
100% efficiency (ie 40% saving)

Cost Saving
 $£1,200,000 \times 0.40 \times 0.40 =$
£192,000

Looking forward to 2008

Timber recycling widespread, so potential 60% cost savings

50% of sites (by turnover) segregating waste

£1,440,000 basic cost
50% segregating
100% efficiency (ie 60% saving)

Cost Saving
 $£1,440,000 \times 0.50 \times 0.60 =$
£432,000