

Case study

Social Housing: tackling waste arisings from the Decent Homes Programme

Action by Efficiency North procurement consortium



The £16bn Decent Homes programme is one of the largest construction programmes in the UK. It is also responsible for a large volume of waste that can be difficult to recycle.

Efficiency North is a social housing procurement consortium committed to sustainable development. To reduce its burden on landfill, Efficiency North worked with its contractors and their supply chains to address waste reduction, segregation and recovery.

This case study outlines how they achieved:

- significant reductions in waste to landfill;
- better quality of data; and
- at no additional cost premium.

These improvements were achieved by taking a partnership approach with their contractors (Kier Henry Boot, Lovell, Wates and Keepmoat), and rationalising their waste management providers to one (TK Lynskey Excavations Ltd).

Table 1: Performance summary

Contractor	Previous waste recovery	Current waste recovery	Estimated cost saving
Kier	30-35%	94%	£45 per 8t skip
Lovell	0-40%	94%	£45 per 8t skip

This table shows improved waste recovery rates and the potential cost savings for refurbishment projects under the Decent Homes programme procured through Efficiency North in 2010. Whilst still early in the programme, it appears that this has been achieved with a saving of £45 per 8 tonne skip. The savings are based on the cost of landfill disposal of waste established by Efficiency North from a field study with Berneslai Homes in 2008.

Lessons learnt

- By putting waste on the agenda, RSLs can significantly reduce their environmental footprint.
- By visiting a number of waste transfer stations, RSLs can more readily identify which waste service providers can provide the required level of recovery.
- Where the waste transfer station operator also owns a landfill site, there is less incentive to recycle.
- By moving to a single supplier of waste services, the cost for disposal is removed from the building contract prelims and given far greater prominence.

Efficiency North

Efficiency North is a social housing procurement consortium, established in 2006. Originally termed '4 South Yorkshire', the consortium has a regional membership across Yorkshire and the Humber:

- Sheffield City Council;
- Rotherham Metropolitan Borough Council;
- Doncaster Metropolitan Borough Council;
- Barnsley Metropolitan Council;
- Sheffield Homes;
- 2010 Rotherham Ltd;
- St Leger Homes of Doncaster;
- Berneslai Homes Limited;
- Nottingham City Homes;
- Hull City Council; and
- A1 Housing.

The consortium has a focus on improvement works to achieve the Decent Homes standard, exercising improved buying power and management systems through close collaboration.

The Decent Homes challenge

Decent Homes sets a minimum accommodation standard for social housing, and must be met by 2012. Social landlords are therefore delivering major improvement programmes characterised by the replacement of:

- kitchens;
- bathrooms;
- boilers;
- wiring; and
- windows and doors.

The total value of the Decent Home improvement programme is approximately £16 billion, making it one of the largest capital investment programmes in the UK.

The scale of the programme and the emphasis on refurbishment means that the Decent Homes programme is a major source of waste. In addition, much of the waste is difficult to recycle – especially kitchen products which are chipboard-based.

Efficiency North therefore identified that:

- their works were responsible for a large volume of waste, and they believed much of this was going to landfill; and
- waste disposal was a significant cost in their improvement works.

The baseline

Efficiency North began looking at the waste issue in 2008. Before this date, little emphasis had been given to waste reduction or recycling, and the onus was on the contractor to make their own provisions for waste disposal and comply with Duty of Care Regulations.

At the time, each member of the consortium had their own framework of main contractors, each with its own supply chain and waste management subcontractors. This fragmented approach meant that it was difficult for the consortium to collate reliable data on waste generation and waste diverted away from landfill.

To identify how waste was actually managed, Efficiency North visited several construction sites. It was clear that there were severe constraints on space, limiting the contractors' ability to segregate waste on site. Where space permitted, limited quantities of waste types were being segregated:

- hazardous waste;
- cardboard/paper;
- timber and glass; and
- general mixed waste.



Further inspections revealed that:

- site segregation of waste was usually limited to timber and glass;
- site restrictions and the requirement to minimise the health and safety risks to residents meant that mixed waste was taken off site to waste transfer stations for segregation and recycling;
- the mixed waste included large quantities of off-cuts from new materials;
- data from waste transfer stations were unreliable and were inclusive of other clients' waste;
- there was a lack of accurate measurement of waste generated on projects; and
- the actual cost of waste management was not transparent and was included as a provisional sum or in the contract Prelim costs.

An Action Plan to improve waste segregation and recycling rates was agreed with the contractors which involved the identification and implementation of 'quick wins'. However, it was clear that sending less waste to landfill and robust measurement was an area that required a more radical solution.

New waste strategy

In 2008, Sheffield City Council launched a new waste strategy with ambitious waste recycling and reuse targets – to reduce household waste generated by 2% from 2009-14 and reduce waste sent to landfill by 10% by 2020. Most of the domestic waste was earmarked for use in the Combined Heat and Power (CHP) plant for district heating for social housing.

Efficiency North responded with a fresh and proactive approach to waste. The decision was made to make waste a firm agenda item for the programme.

Rather than impose restrictions, Efficiency North worked with their contractors to find a solution that helped both the client and the contractor deliver their objectives of reduced waste to landfill, reduced costs and better data.

The process

The decision was taken to rationalise the number of waste management contractors in the supply chain, with an opportunity to revisit the provision of these services on issues of quality and performance other than just cost. This review involved five main contractors working for the two Arms Length Management Organisations (ALMOs): Sheffield Homes and 2010 Rotherham. The contractors were; Kier Building Maintenance, Henry Boot, Lovell, Wates and Bramhall/Keepmoat, with Kier taking the lead for the procurement process.

A new scope of services was developed that emphasised that optimising waste recovery, the quality of service and accuracy of data were critical factors.

Tenderers were asked to demonstrate their expertise by submitting method statements on how they would deliver these objectives. Innovation and new approaches were encouraged.

The shortlist

A total of 12 waste contractors responded to the 'Expression of Interest', of which four contractors were short listed for detailed submissions and site visits as part of the tender evaluation.

These visits revealed clear differences in approach and capability. In particular it was noted that some waste contractors managed their own landfill operations. These operators tended to focus on segregating out aggregates which could be used for engineering applications at the landfill. Most other waste was sent to landfill.

Much of the waste handled by these transfer stations was inert (demolition and excavation arisings) allowing them to report reasonable recovery figures of 80%. But as Decent Homes waste is rarely inert, the reality was that a much lower (40-60%) quantity of waste was actually being recovered.



The new supplier

TK Lynskey Excavations Ltd (TKL) was appointed as sole provider of waste management services to the Sheffield Homes and 2010 Rotherham Decent Homes programme.

TKL was chosen because:

- they had the capacity to efficiently segregate construction wastes off site, removing the need for site segregation on tight sites;
- they had identified end demands for almost all wastes so could achieve recovery rates above 90%;
- they could provide consistently accurate data on the types and quantities of waste that they processed; and
- they could provide a high level of customer service with data being provided on a specific contract, site or client basis.

The results

To date, four main contractors are using TKL to process all their waste. The early results on recovery rates are encouraging. The February 2010 waste management data for three Lovell sites show the following performance:

Table 2: the results

Sites	Total waste	Recycled waste	Waste to landfill
A	30t	28t (94%)	2t (6%)
B	5t	4.7t (93%)	0.35t (7%)
C	17t	16.3t (96%)	0.68t (4%)

Although the above is a small sample (one month) the level of recycling is much higher than the level being achieved previously as indicated in Table 1 (Performance Summary).

Results will continue to be monitored by Efficiency North so that future improvement targets can be set.

The main objective was to improve waste performance without increasing costs. It is early days to make an assessment of the impact the new waste management arrangements are having on the overall project costs. However early indications are that the procurement exercise has reduced the average unit cost for a 8t skip by £45 and at the same time improved waste recovery from an average of 0-40% to 94% for the contractors involved (see Table 1).

Conclusion

The Efficiency North WMC collaboration has demonstrated that it is possible to achieve significant improvements in waste recovery and recycling by actively engaging with the supply chain.

Although the procurement was undertaken by the main contractors, the client was directly involved in the development of the service brief, quality, performance standards and evaluation of the tenders. The client's vision and leadership was vital in achieving a successful outcome.

The procurement process took over eight months to complete. Part of the reason was getting buy-in from the main contractors' organisations. There was a need to be transparent in the WMC selection process in order to satisfy the different stakeholders on both the client's and contractors' side. By selecting a waste contractor active in the waste recovery business, and with modern facilities, they were able to see immediate improvements in recycling rates and the waste data reported by each contractor.

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