



Cost considerations are divided between projects where steel recovery is driven by clients and those driven by demolition contractors. Following the advice of the Working Group on Steel Reuse, we do not provide current cost figures, as they will quickly become outdated and are highly project-specific. Instead, we provide guidance on aspects that will impact the economics of recovering steel for reuse, with some approximate proportions where applicable.

Procurement guidance covers arrangements between demolition contractors and other actors in the supply chain and how these can be improved to promote steel reuse.



Cost and procurement

Cost considerations for recovering steel for reuse

Procurement guidance (coming soon)



Client Project Manager-Driven Project Cost Considerations

The reuse of structural steel retained by the client involves several considerations regarding cost savings and programme timelines, with distinct project scenarios to be taken into account.

Reused Steel Obtained from the Client's Donor Building:

Reusing steel from a donor building offers significant raw material cost savings for the client, with estimates suggesting it can be 20-30% cheaper than new raw materials.

However, fabrication and testing costs need to be factored back into the overall cost of the reused material, with fabrication costs increasing by 15-20% due to the additional labour and processes required. Reclaimed steel often cannot be processed using automated systems, necessitating more manual labour. Additionally, there are de-fabrication, testing, and stock matching costs. These factors may offset some of the perceived financial benefits of steel reuse.

A clear advantage of client retention is the guaranteed availability of steel sections held in stock on their behalf, along with the embodied carbon value gained from the reused steel.

The selected deconstruction contractor will also incur additional costs that need to be factored into the project cost plan in both loss of steel credit value and additional recovery, handling, and transport costs.

Reused Steel Sourced from a Stockholder:

Steel from a stockholder will already include various additional costs by the time it is delivered to the project, such as testing and defabrication costs.

The deconstruction contractor will have covered their costs by selling the steel directly to the stockholder, as such the maximum credit value for the material will have been invested within the project cost plan.

Embodied carbon values will be retained within the reused product.

The limiting points for consideration are the fluctuating market values for steel. A deconstruction contractor could sell to the stockholder at a high value, which may subsequently drop, reducing the selling price of the repurposed steel sections. Conversely, the market could go the other way, increasing the value of the reclaimed material.





Contractor Driven Project Cost Considerations

There are numerous reasons why a contractor might consider the reuse of steel on a particular project, including competitive edge over other contractors, steel price uplift, and carbon footprint reduction.

Competitive Edge: Demolition contracting is an extremely competitive industry, with almost all contract work awarded through competitive tendering. Anything a contractor can salvage may give them a crucial competitive advantage.

Cash Flow: The working group on steel reuse formed within the DISRUPT II project mentioned cash flow; however, discussions with stockholders indicate that this is generally well-managed, with prompt payment terms guaranteed.

Project Programme: The working group has often indicated that additional time is needed to recover steel sections. This can have a significant impact on the project programme, requiring additional resources.

Cost: More time inevitably means higher costs or the need for additional resources. Unfortunately, under open competitive tendering, contractors often lack the flexibility within the contract to allocate extra resources, limiting the scope for material reuse.

Steel Price Uplift: The market price for reusable steel varies in line with steel scrap market prices. As such, contractors must confirm negotiated prices at the commencement of work, which can differ significantly from prices at the tender stage. The steel reuse uplift can often provide contractors with the all-important competitive edge.

Carbon Footprint: While this is an important consideration, open tendering often limits contractors' ability to prioritise green initiatives. More needs to be done to ensure contractors minimise their carbon footprint. Planning restrictions and greater industry awareness are essential to driving this forward.

Additional Resources:

Plant: Additional plant may be required, though many city centre sites already have adequate cranes. Feedback suggests that micro cranes are often used to reduce tower crane lifting time. ([see: Extra equipment that might be required for reuse vs business as usual](#))

Labour: Extra labour may be needed to dismantle the steel sections, potentially involving 'hot works burners' to trim the steel for transport.

Management: It is unlikely that additional management will be needed, but it is essential that existing management engage fully with the procurement team to maximise recovery targets.