HOW AND WHEN TO SOURCE RECLAIMED STEEL?

Reclaimed steel can be sourced from existing buildings due to be refurbished or demolished. For this to happen, the material needs to be post 1970s, to enable it to be recertified. Reclaimed steel can also come from new steel that has not been used for its intended purpose e.g. overordering, design changes. Reclaimed steel is not the same as recycled steel, which has been remelted. Structural steel sections are inherently reusable. The process is straightforward.

The stockholders and business models

The market for reclaimed steel is growing. There are now two key players which have established business models where they are both seeking reclaimed steel to sell on the open market. EMR and Cleveland Steel and Tubes (CST) will buy suitable reclaimed steel and undertake the various fabrication processes and testing to enable that steel to be reused again in a structural capacity. CST also sell surplus gas and oil pipes for reuse; John Lawrie Tubes also sells surplus tubes. Structural steel sections may also be available from demolition companies and reclamation yards.

Of course, to enable reclaimed steel to enter the marketplace, there has to be a ready supply, which has to come from our existing assets. Asset owners therefore are pivotal in establishing this supply. Some asset owners are now mining their own buildings to be able to reclaim steel for use in their new or refurbished buildings. Whilst the asset owner retains ownership of the steel, companies such as CST and EMR can undertake (or subcontract) fabrication and testing. Both these models are described in the DISRUPT supply chain models document. However, it is unlikely that enough steel from the old building will be enough to meet the demand for a new building. Therefore, it is likely that both models will need to be used in obtaining reclaimed steel.

Key considerations when purchasing reclaimed steel

- Materials should be secured at the outset (early design stages), as they may not be available when construction commences (the supply of reclaimed steel as yet is not large enough to guarantee their availability). This requires cost and storage. There may also be some risk – for example if the design changes or the project does not progress.
- There could be uncertainty in the pricing of steel, for example the amount of steel that can be used from a reclaimed source where the yield may be less than virgin steel or more rework required dependent upon the connection designed.
- Designers may need more time when designing with reclaimed steel.

Key considerations for asset owners looking at using steel from their own buildings

- Undertake a pre-demolition audit to establish the quantities of steel that may be suitable for reuse (note this is not always known if the steel cannot be visually assessed).
- Work with stockholders and demolition contractors to assess the viability of removal and reuse, and the associated costs and programme considerations (it may not necessary take longer dependent upon how columns and beams are removed).
- Make sure there is a favourable procurement environment, so the demolition contractor (and the main contractor if they are employing the demolition contractor) are not disincentivised or are likely to add undue cost/risk.