



Steel Reuse – A Practical View

Cleveland Steel and Tubes – 50 years of repurposing and reusing steel

Managing Director; Roy Fishwick – BSc MBA
35 years experience



What is Reuse?

Second hand material – used in another application

Waste material – saved from waste OR

Prevent Need for New

Byproduct – material created but not required when new product manufactured





RECLAMATION

Deconstruction Vs Demolition WORDS MATTER

Do not try and recover what nobody wants

Do not create work

Work also costs time and time costs cash And CARBON

Things They are A-Changing

We are at “real” beginning

Several Live projects now reusing or investigating reuse

Financiers want Carbon reassurances

Clients want greener buildings

Demolition contractors now coming on board

Fabricators need to change but are showing interest

Specifications and Guides all have sustainability written in

Legislation moving far too slowly to keep pace with market demands - no surprises there



CAN WE REUSE?

Identifying Material

*Whats there? Predemolition Audits
more common and
more detail required*

*Does Client want to retain?
(want is the demolition specification?)*

Whats commercially saleable/viable?



(pre) Demolition

Circular Economy

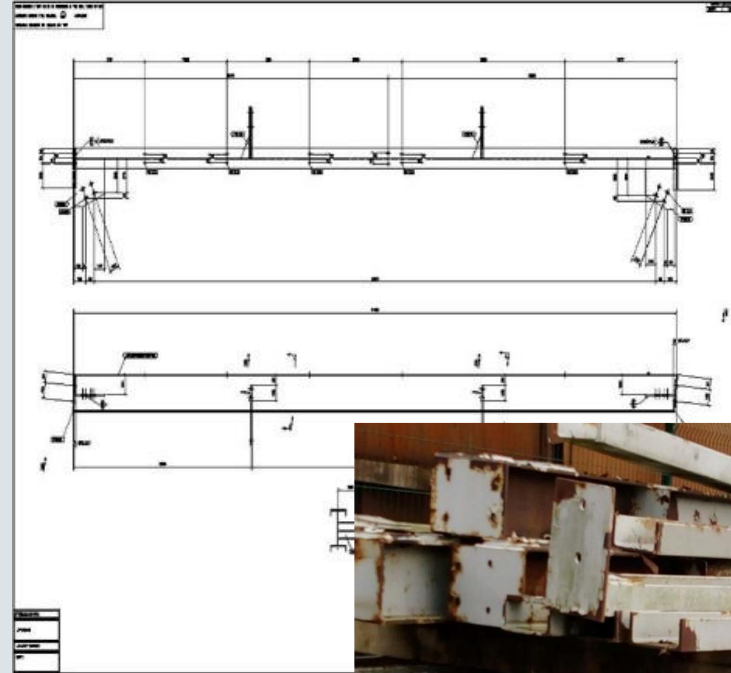
KEY IS SELLING YOUR DEMOLISHED STEEL INTO SUPPLY CHAIN

- Use Your Own - Use predemolition Audit – how accurate?
- Program issues of demolition to reuse
 - How efficient is the design?
 - Storage and rework
 - VERY disruptive to current supply chain- good comms and feedback loops are crucial

Hybrid Solutions and flexible specifications are key
(GRADES!!!)

Inventory - Information

- Got the original model
- Got the original drawings
- Site visit and components map/inventory
- Got a pile of miscellaneous, largely unmarked steel



Demolition Specification

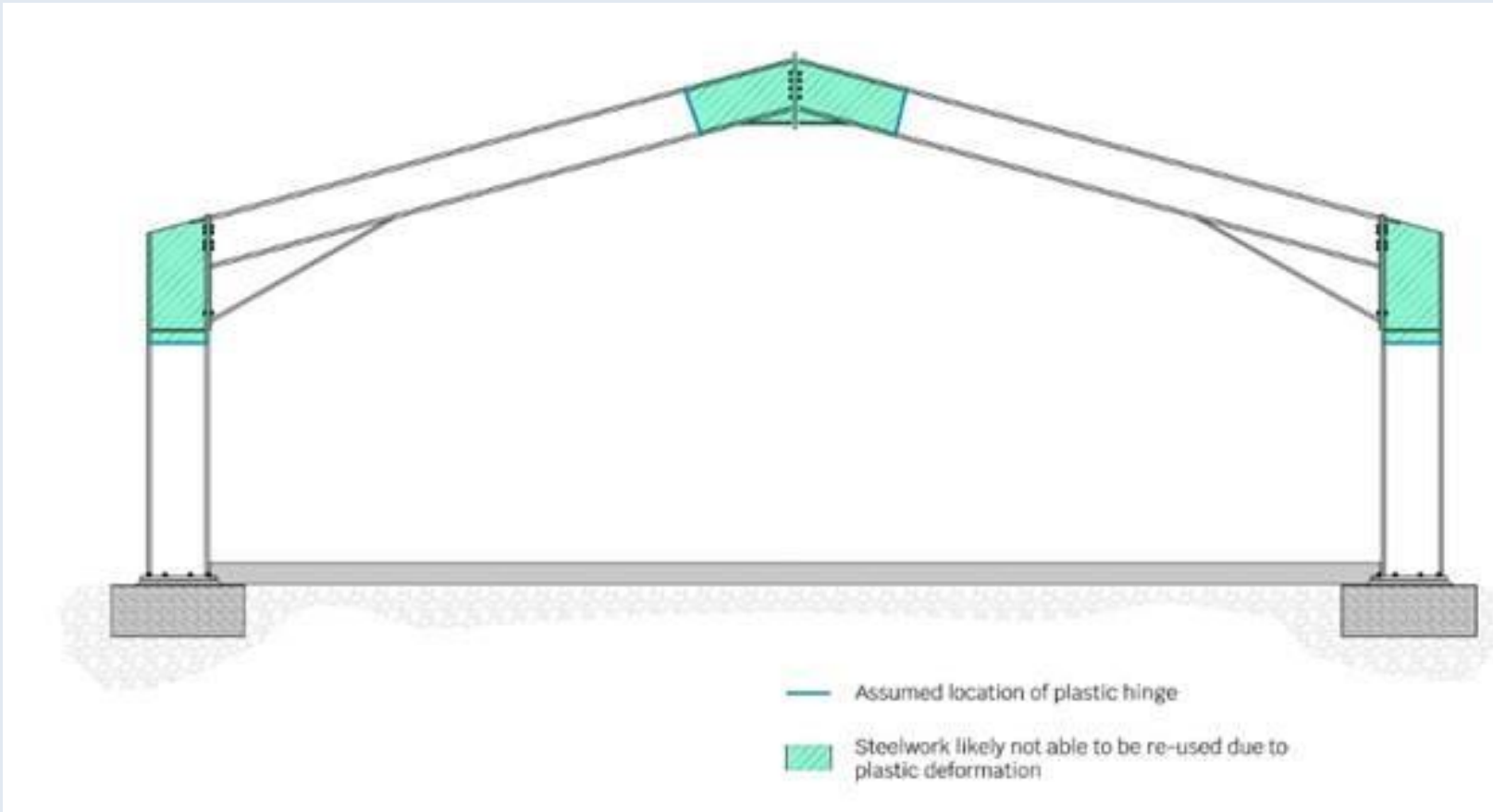
Issue of Forethought

Problems of Afterthought

Demolish or Deconstruct?

- *be cautious of terminology*
- *don't do work for works sake*
- *don't recover material no one wants*
- *cost/return benefit?*





Practical Considerations of Reuse



GRADE – protocol means lower Outcomes

Cost

Availability

Timing

Program impacts

ITS NOT NEW

Design Efficiency (over size/waste)

Issues for fabrication

COSMETICS



Case Studies

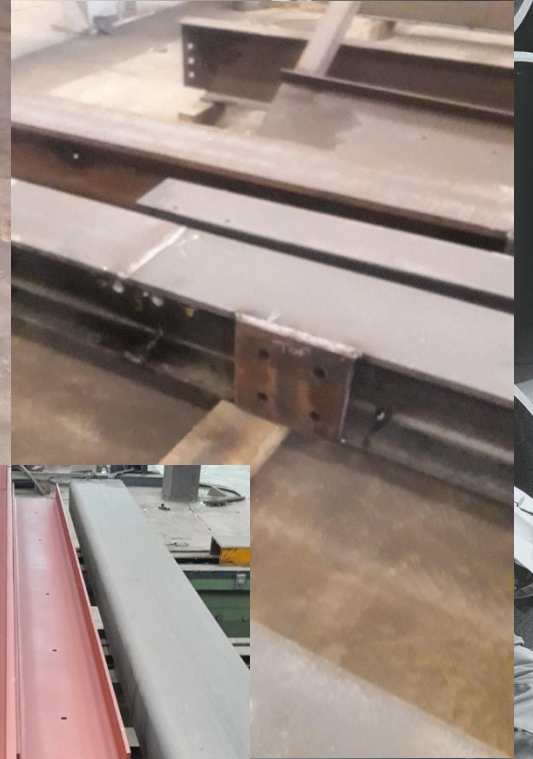
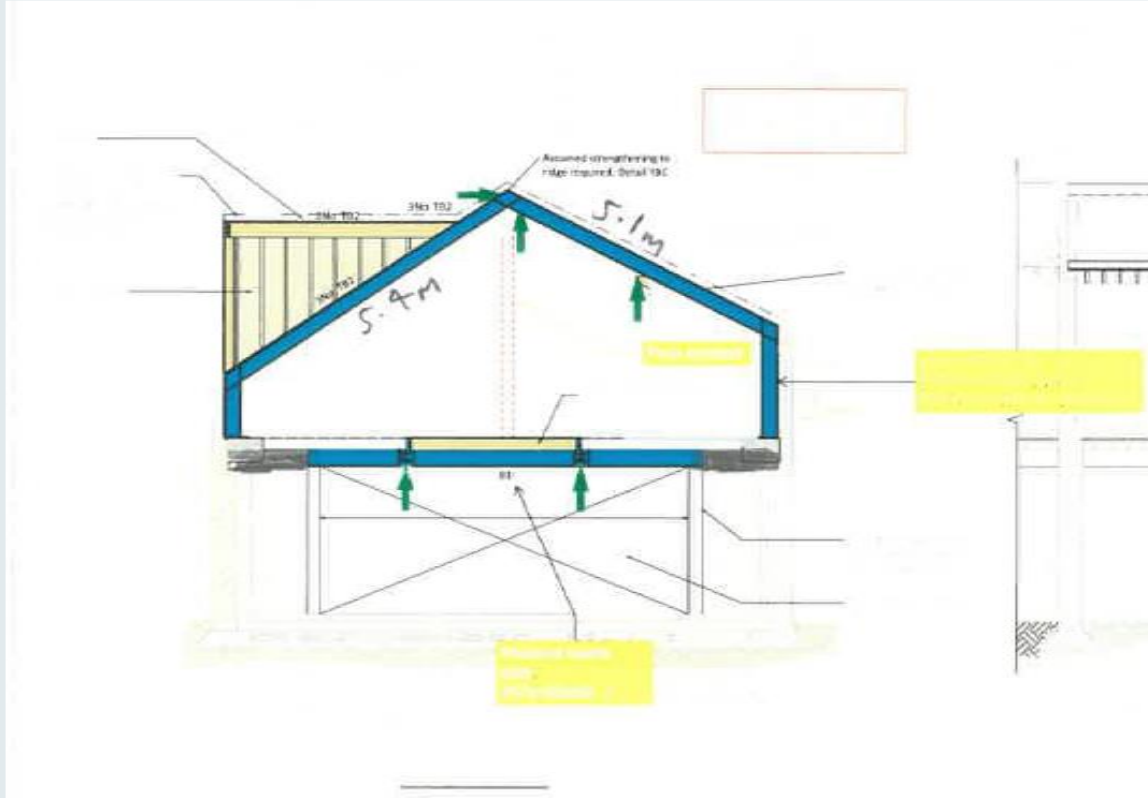


Arkengarthdale Bridge



4T of Carbon saved

Simple Reuse



Holbein Gardens

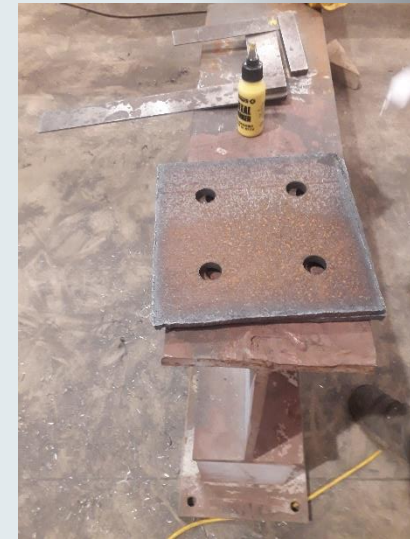
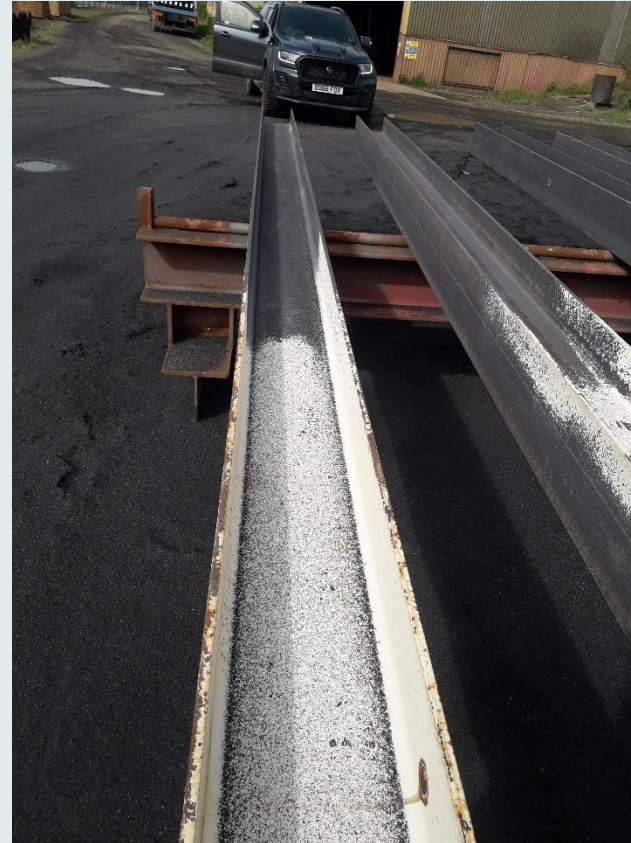


Simple Reuse

Support joists

Basic connections

Holes/attachments dont matter



Simple Reuse



Tree of Trees – Platinum Jubilee



Provided by Cleveland Steel in Yorkshire, the design has been optimised to maximise the use of old surplus steel, keeping the level of embodied carbon to a minimum.



ITS OUR BUSINESS

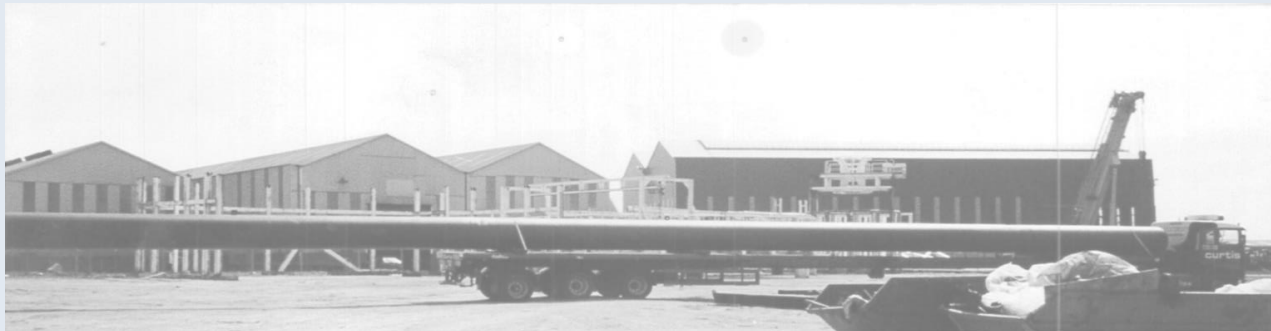
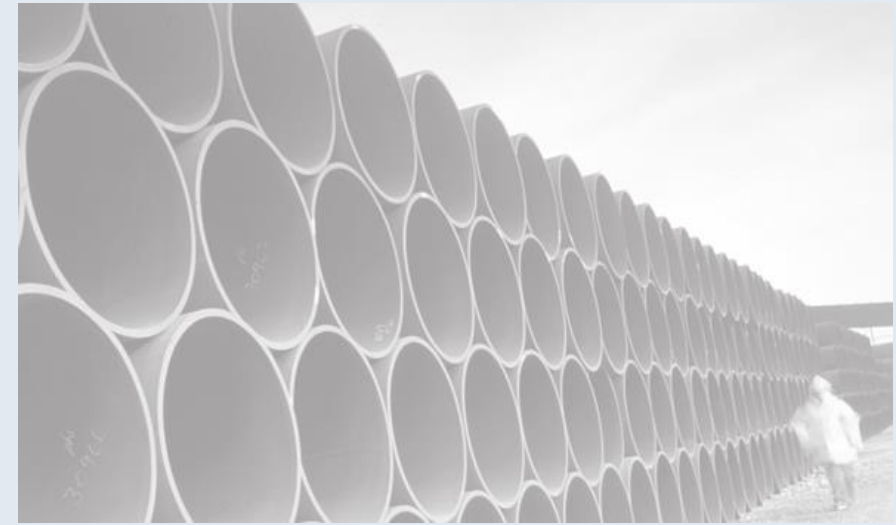
Established for 45 years

CST HAS 75000T OF STEEL PIPES

100% TRACEABLE

60% PRIME CERTIFIED

FABRICATION AND PROCESSING TO EX CLASS 3





40,000 FT²

WELDING AND FABRICATION FACILITY

220,000 FT²

OF WAREHOUSING

10,000 FT²

PAINTING FACILITY

70,000 TONNES

OF TUBES IN STOCK

100 ACRE

FACILITY



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Factory Production Control 2273-
CPR-0093



BS EN ISO 9001:2015



BS EN ISO 9001:2015, NHSS 3B



VERIFIED



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As featured by the [Daily Telegraph Business club](#)



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