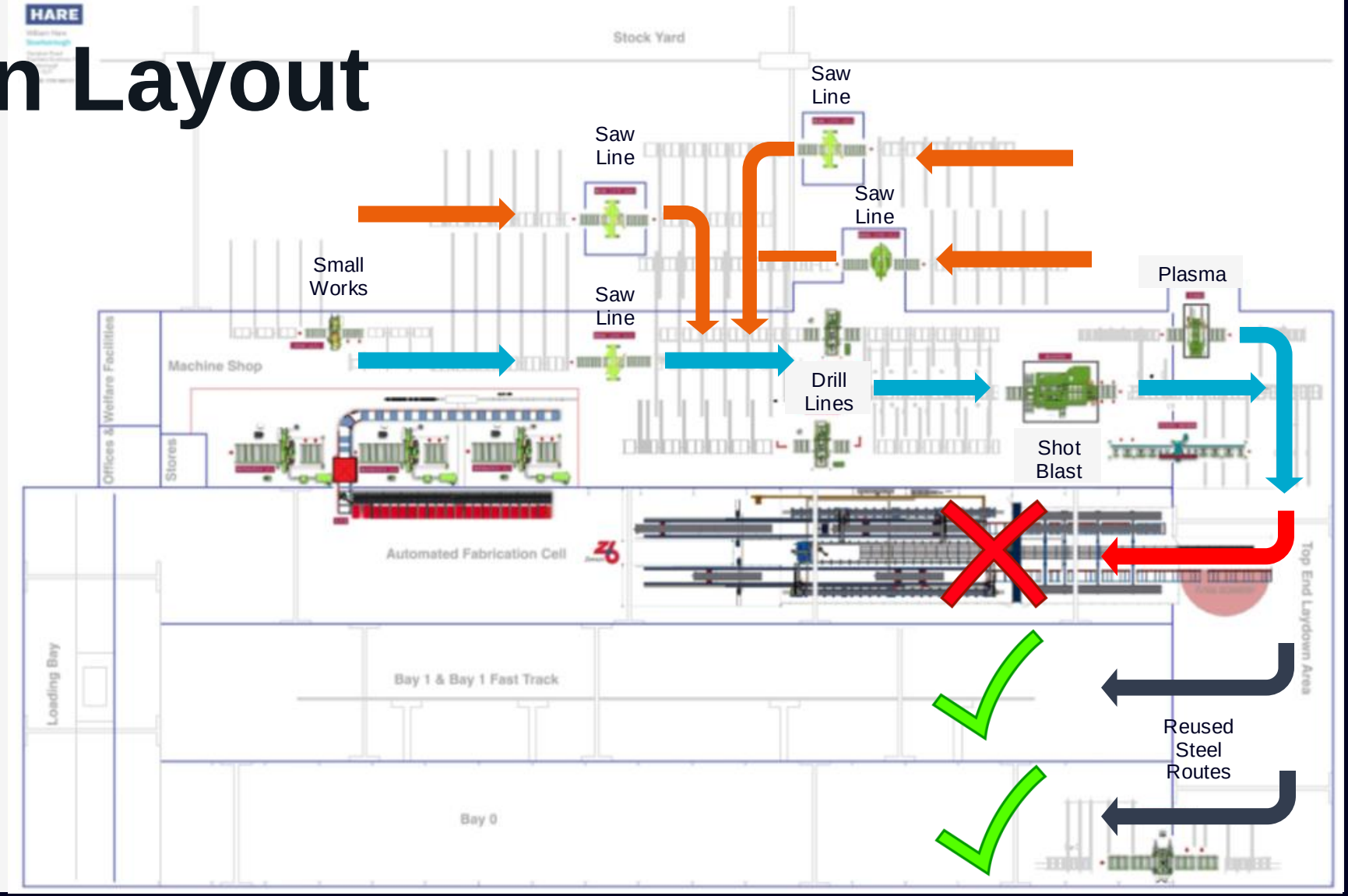

HARE
Circular Steel 2024
Testing & Fabrication

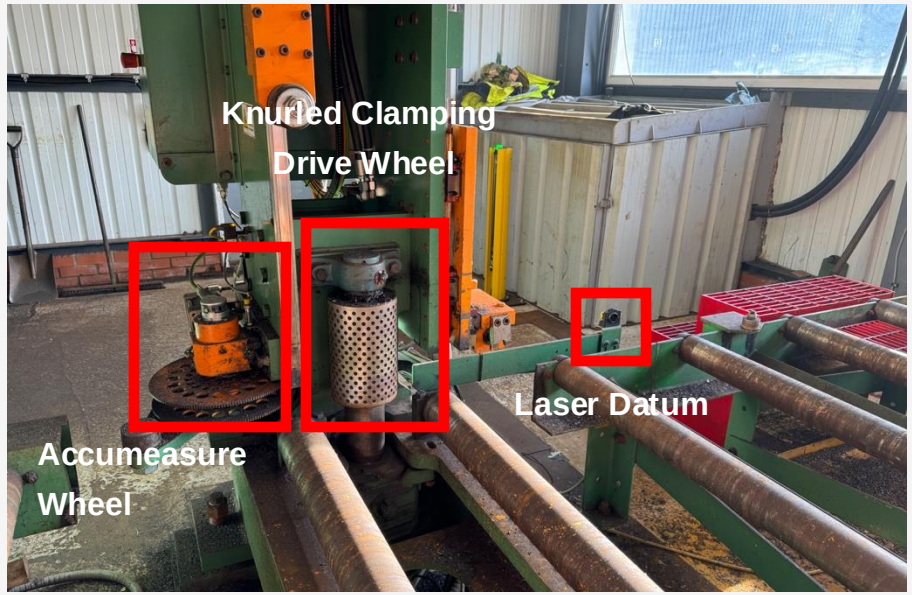
Fabrication Layout

Key Phases

- Saw Lines
- Drill Lines
- Shot Blast Machines
- Plasma Cutting
- Assembly & Welding
  - Automated
  - Manual
- Loading & Dispatch



How do we cut?

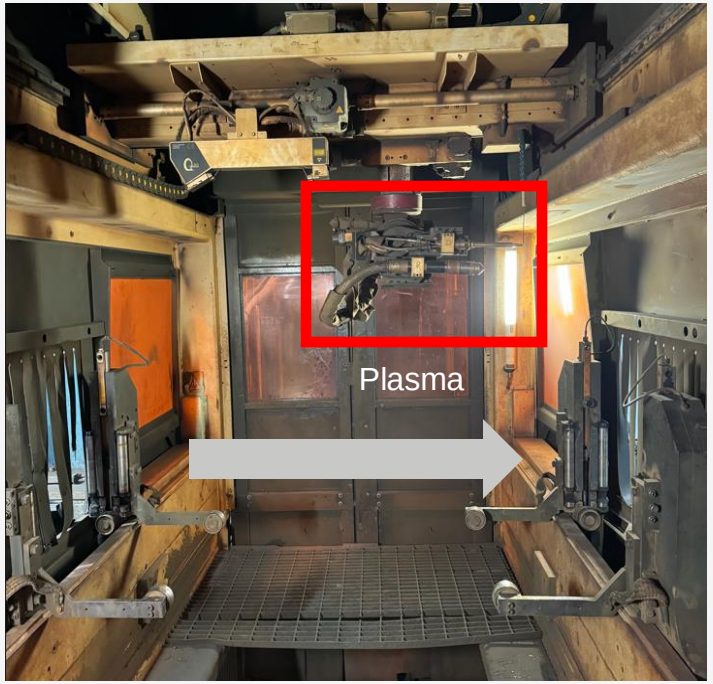


Saw-line is an automated process – cost and safety benefits

Machines clamp the section, and:

- Set Zero Datum with Laser Datum
- Accurately feed section using Knurled Clamping Wheel
- Accurately auto measure length using Auto measure Wheel

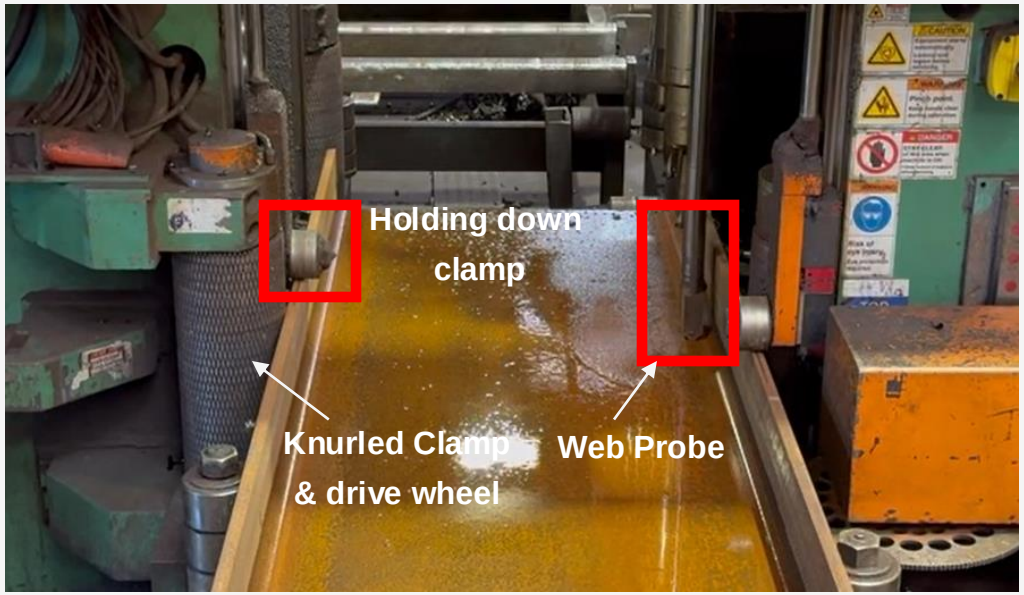
How do we cut?



Plasma cutter works in similar way to saw and drill lines

Clamping action ensures accuracy in terms of length & straightness of cut

How do we drill?



Drill-line is an automated process

Machines clamp the section in vert & horiz directions

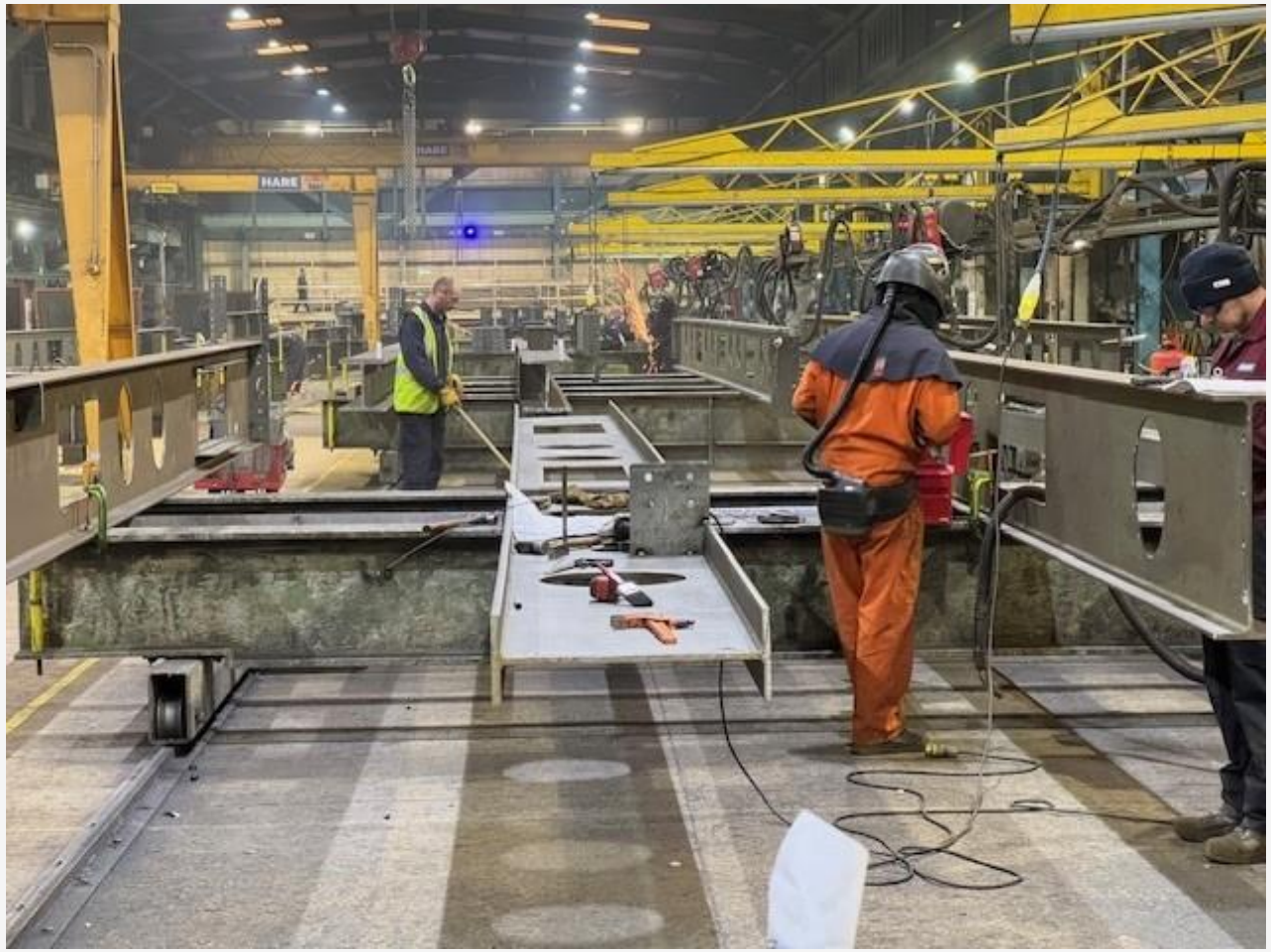
Probes measure position of web to ensure hole / web alignment

How do we weld?

Re-used steel unlikely to go down auto-mated lines in short term due to robotic measuring equipment…

How do we weld?

Manual Fabrication Lines can adapt to nuances of re-used steel



Impacts of Re-used Steel

Protrusions to Flanges

Stiffeners in Webs

Damage Classifications

How to optimise throughput…

Protrusions to Flanges

Protrusions to flanges can result in handling errors in automated lines

Lack of accuracy due to positional systems being compromised

Still possible to fabricate but we would revert to manual Cutting / Drilling / Notching

Stiffeners in Webs

Stiffeners in webs can clash with ‘drill probe’

Slower throughput but if flanges are clean and locations miss cut lines automated cutting still ok

Alternative is to use a Mag-Drill which results in additional handling

Mag Drill

Damage Classification

Deviation from ‘tolerance’ is harder to handle

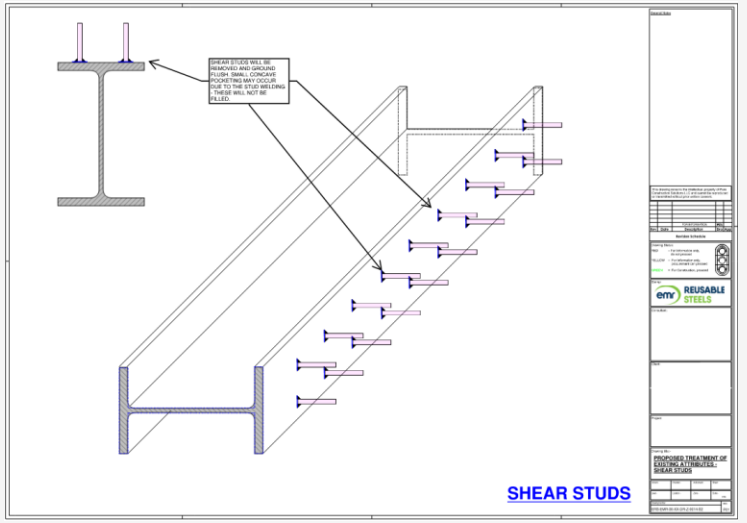
Innovation to incorporate reused steel efficiently should sit elsewhere?

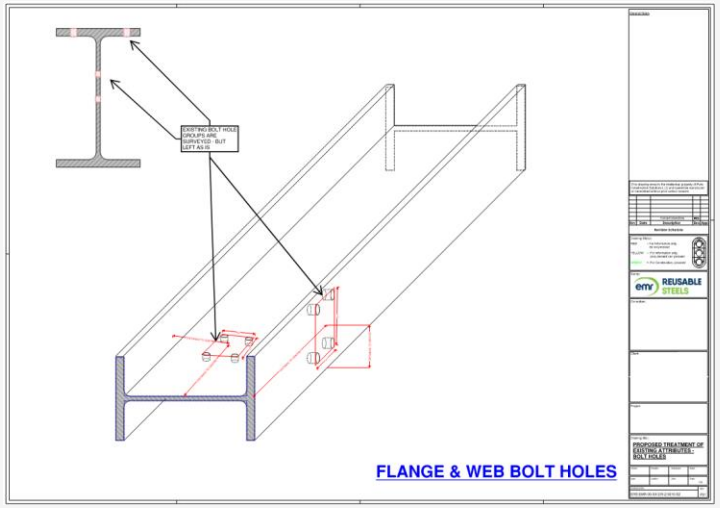
Optimise throughput…

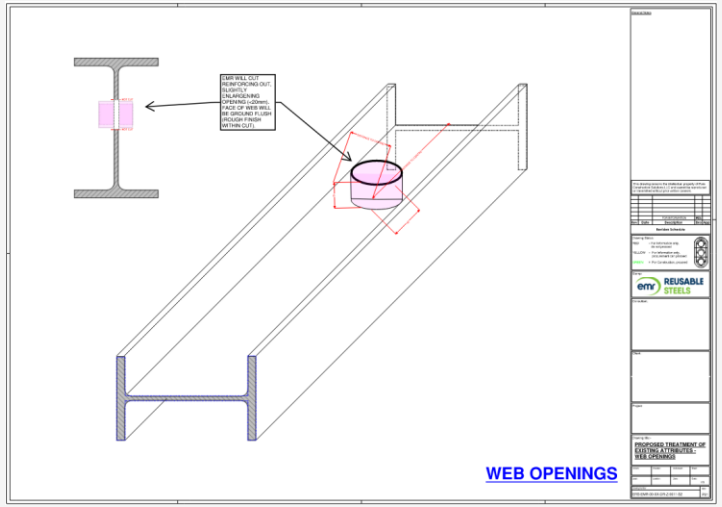
Clearly define scope of all parties

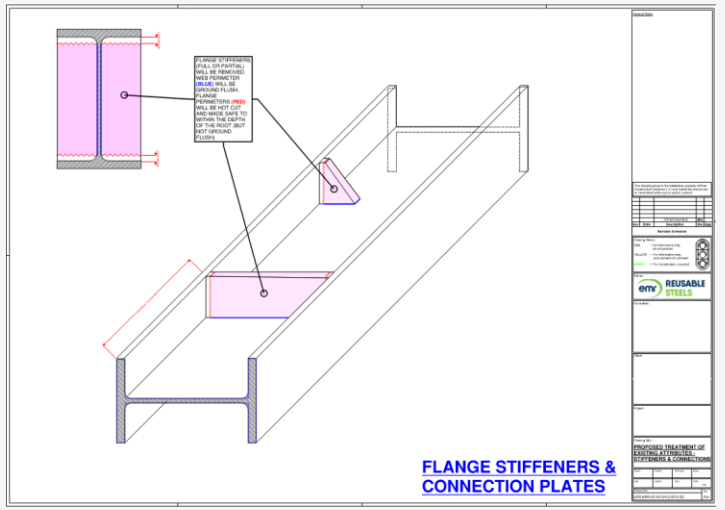
Re-use specialists can add value beyond testing

- Digital surveys
- Increased De-fabrication scope









Conclusions

Everything is possible, but…