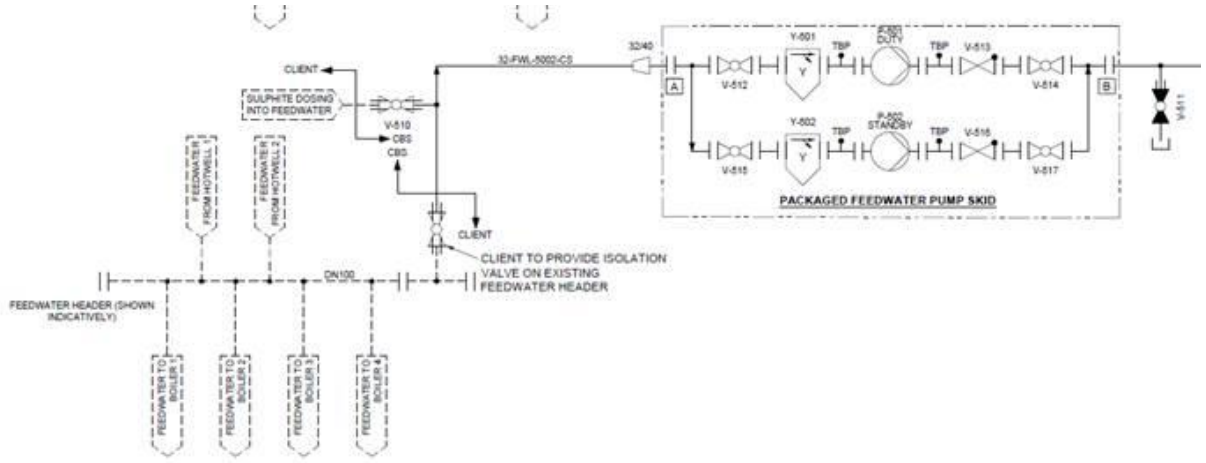
Answers to Q1 & 2

1. *For the WHB, the boiler feed water and chemical dosing is being provided by the Energy Centre. Please confirm the demarcation points for this specifically in relation to new feedwater pumps for the waste heat boiler and the supply of chemicals for this boiler.*

Please see the below snip from our schematic. Essentially, we will provide a valved DN25 tee on our feedwater line for sulphite dosing by TPI as shown below. There will also be a DN25 PN40 blanked flange on the WHB shell for future phosphate dosing by TPI. We will connect our feedwater line to a valved connection on the existing feedwater header to be provided by TPI as shown below.



2. *What provisions are in place to ensure water quality from the new waste heat boiler does not adversely impact the Pirbright steam system to which it will connect?*

The WHB itself will be provided with the following quality-control systems by Gestra, all monitored via the Cochran Synergy integrated boiler control system:

- Modulating high-integrity water level control system.
- Automatic TDS control system.
- Automatic time-controlled bottom blowdown system.

In combination, these control systems will minimise the likelihood of poor-quality steam entering the TPI system by reducing the likelihood of carryover of boiler water and reducing the concentration of dissolved and suspended solids in the boiler water.

Outside the WHB, steam traps will be installed at all low points of the distribution pipework and at intervals of no more than 30m, with a pipework gradient of at least 1:100. Mechanical traps will be installed in all internal areas to allow continuous discharge of condensate from the distribution line, whilst thermodynamic traps will be used in external areas due to the risk of freezing. Drain pockets of sufficient size will be installed to collect condensate at low points, whilst thermodynamic air vents will be installed with air bottles at high points to remove any entrained air. The inclusion of a baffle-type separator has been proposed via RFI 11 and is awaiting response by TPI.