

Surface water run-off from access road area to discharge to a 0.50m x 0.50m filter drain formed of 20mm no fines aggregate wrapped in an impermeable membrane and housing a 1000 perforated pipe to convey the surface water to main network.

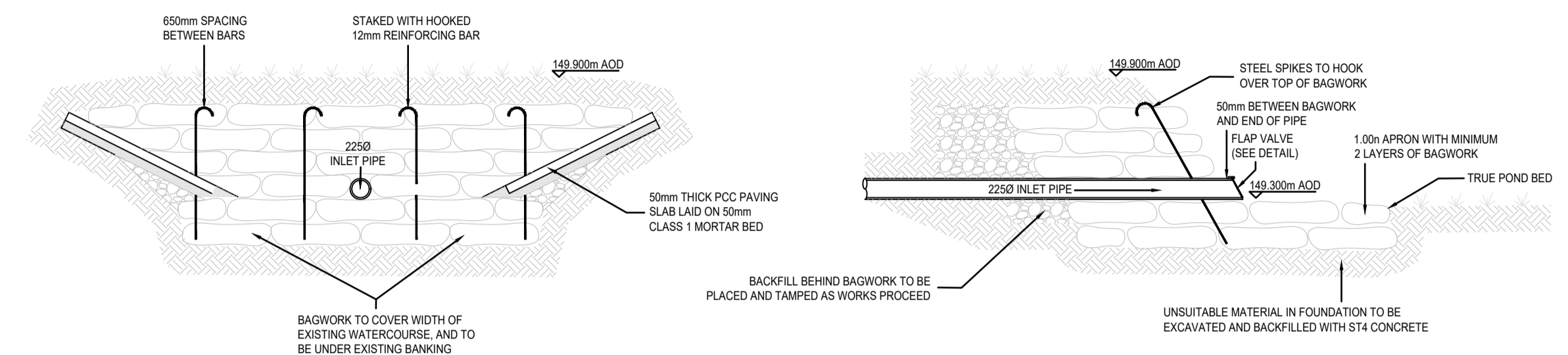
Attenuation Pond	
Outer Area	- 1165.00m ²
Outer Level	- 149.900m
Base Area	- 900.00m ²
Base Level	- 149.300m
Depth	- 0.600m
Side Gradient	- 1 in 3
Pond Volume	- 619.50m ³

Attenuation pond to store water for all storms up to and including 100-year + 40% climate change storm event. Pond to be lined with reeds and / or vegetation to prevent erosion, for pollutant control and to add bio-diversity to development.

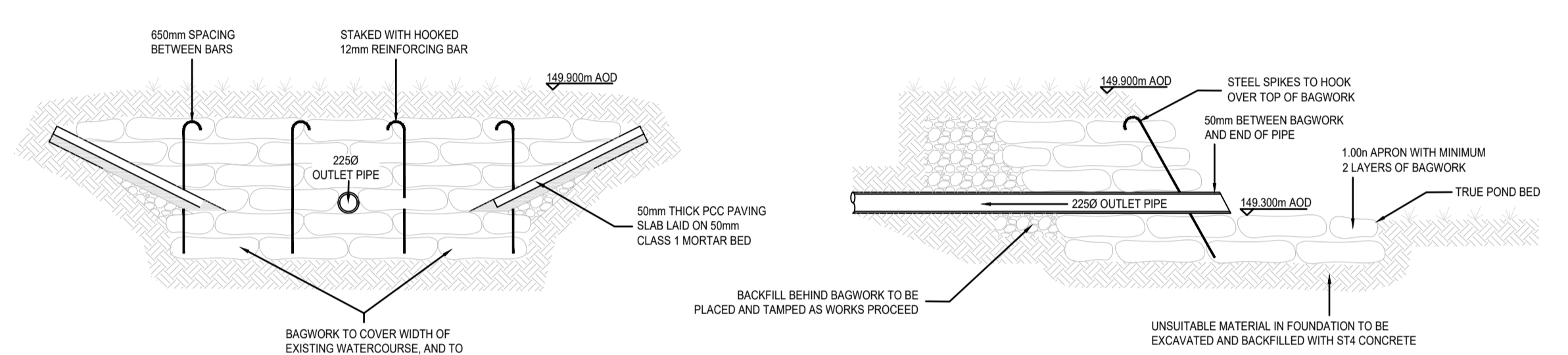
Complex Flow Control Chamber	
Cover Level	- 149.900
Invert Level	- 148.400
Control 1	- Hydro-Brake
Design Head	- 1.200m
Design Flow	- 1.60 l/s
Diameter	- 57mm
Unit Reference:	MD-SHE-0057-1600-1200-1600
Control 2	- Orifice
Level	- 1.200m
Diameter	- 54mm

Surface water to connect / discharge to existing lake / pond via headwall. Discharge to lake / pond to replicate pre-development state, with rates reduced to equivalent natural / greenfield rate at:

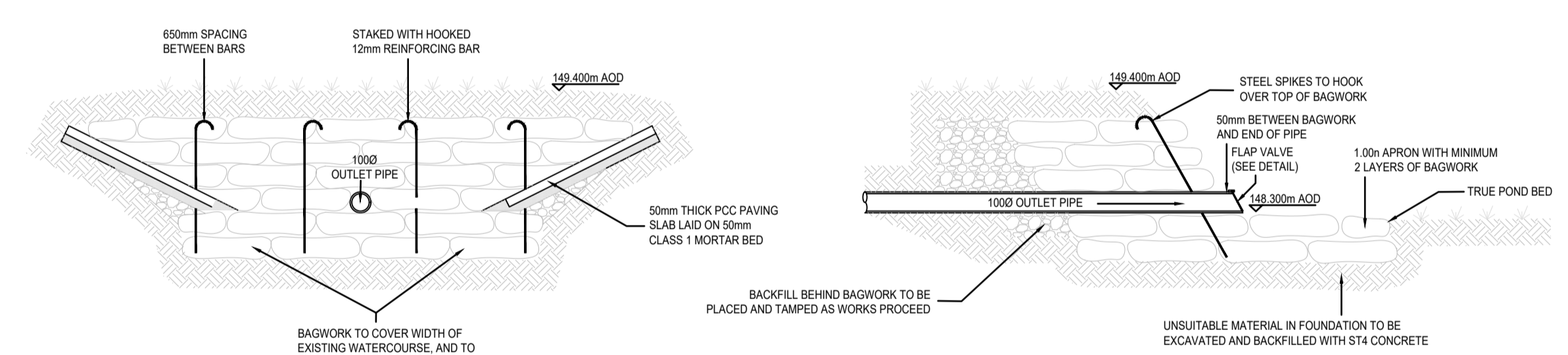
Q1	- 1.50 l/s
Q30	- 4.40 l/s
Q100 + CC	- 6.6 l/s



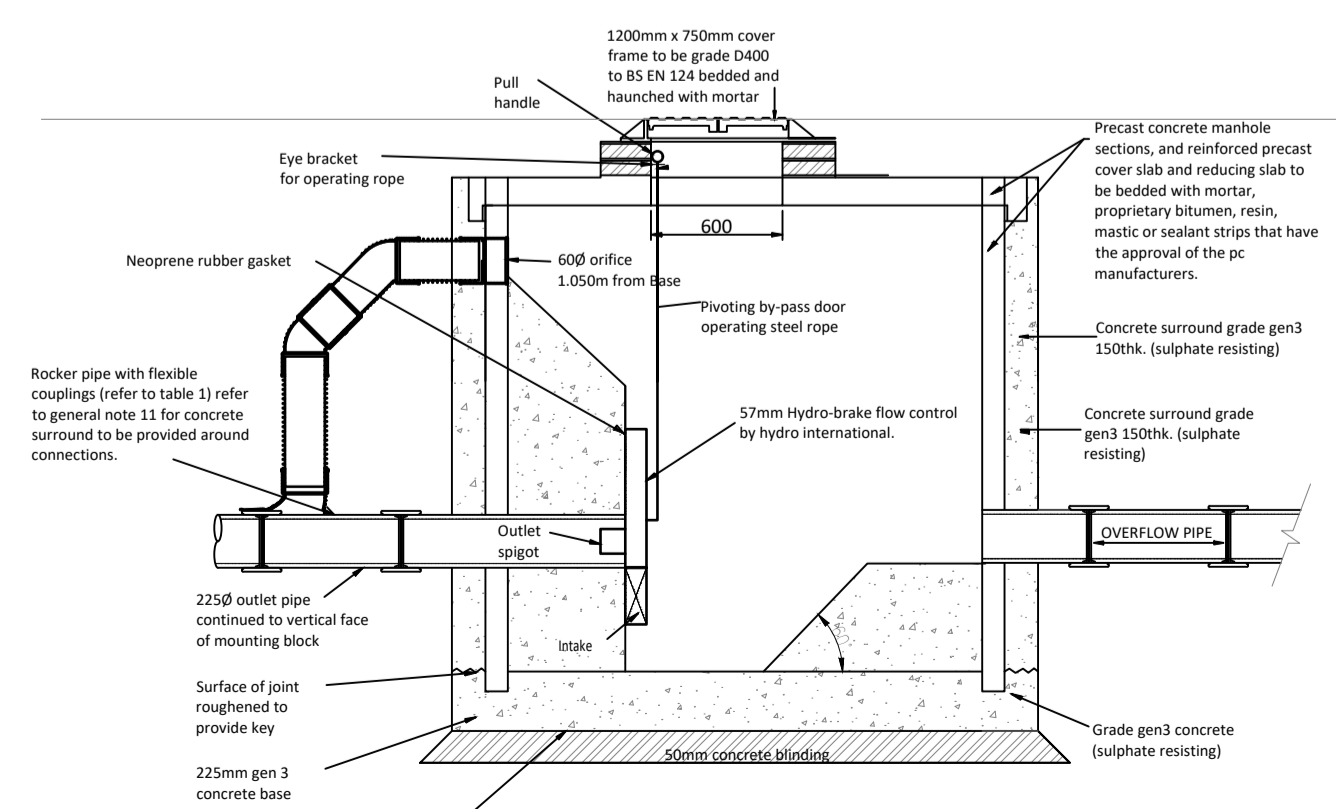
INLET TO POND DETAIL



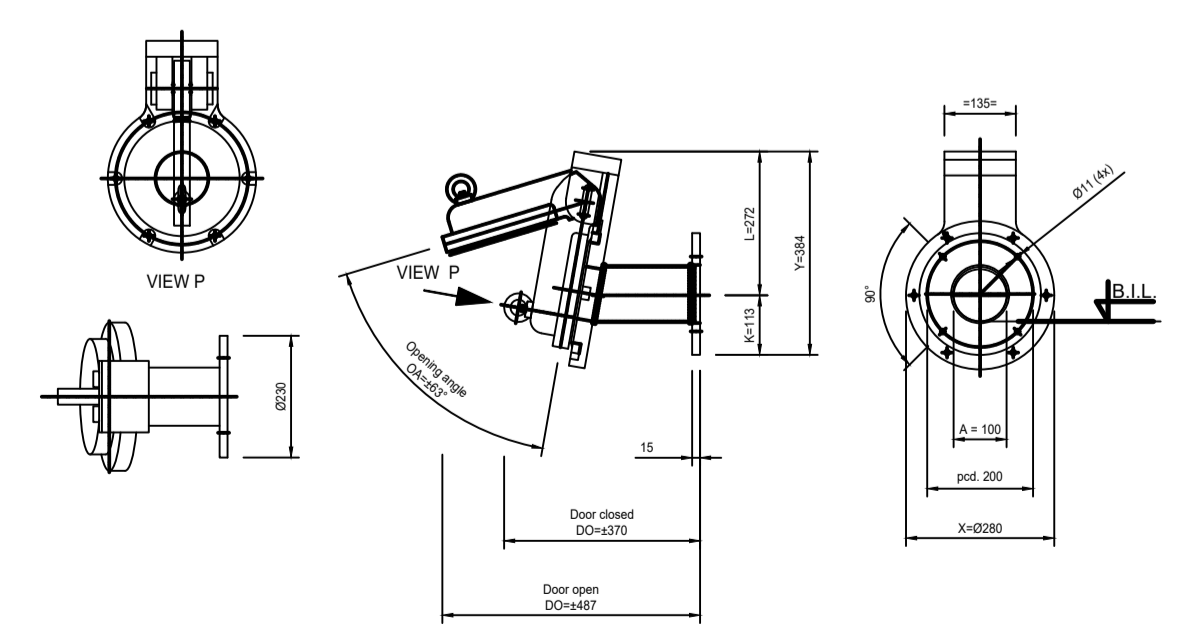
OUTLET FROM POND DETAIL



OUTLET TO EXISTING POND DETAIL



FLOW CONTROL CHAMBER DETAIL



NON-RETURN FLAP VALVE

PLANNING

**NEW CAR PARK AND ACCESS ROAD
THORNBRIDGE HALL ESTATE**

Scale: 1:200 @ A1
 Drawing No.: C 14090/36
 Drawn by: MDS
 Date: Sep '21

**SURFACE WATER
MANAGEMENT LAYOUT
SHEET 6 of 6**

**NORTHERN STRUCTURAL
SERVICES**

1, Prestbury Road
 Macclesfield
 Cheshire SK10 1AU
 Tel: 01625 425243 Fax: 01625 429714
 www.northernstructuralservices.co.uk