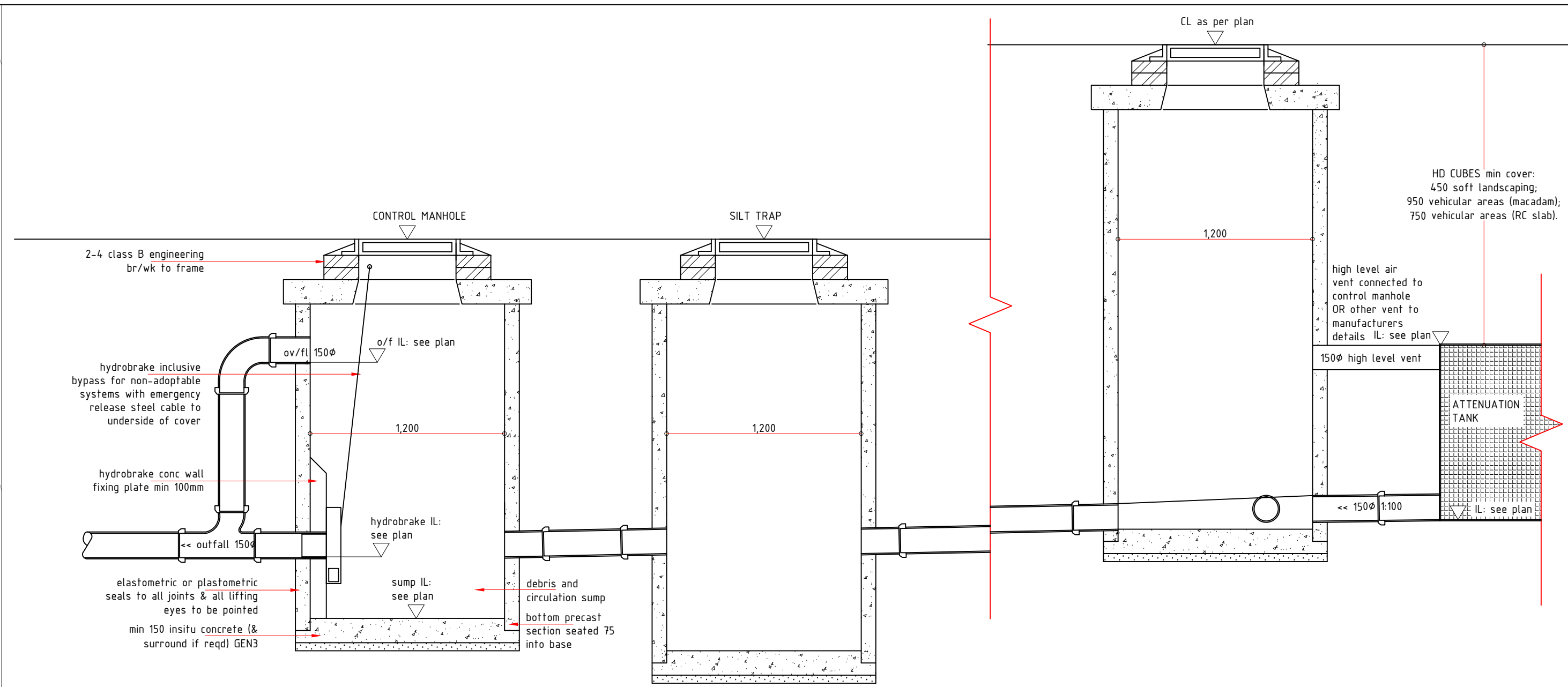
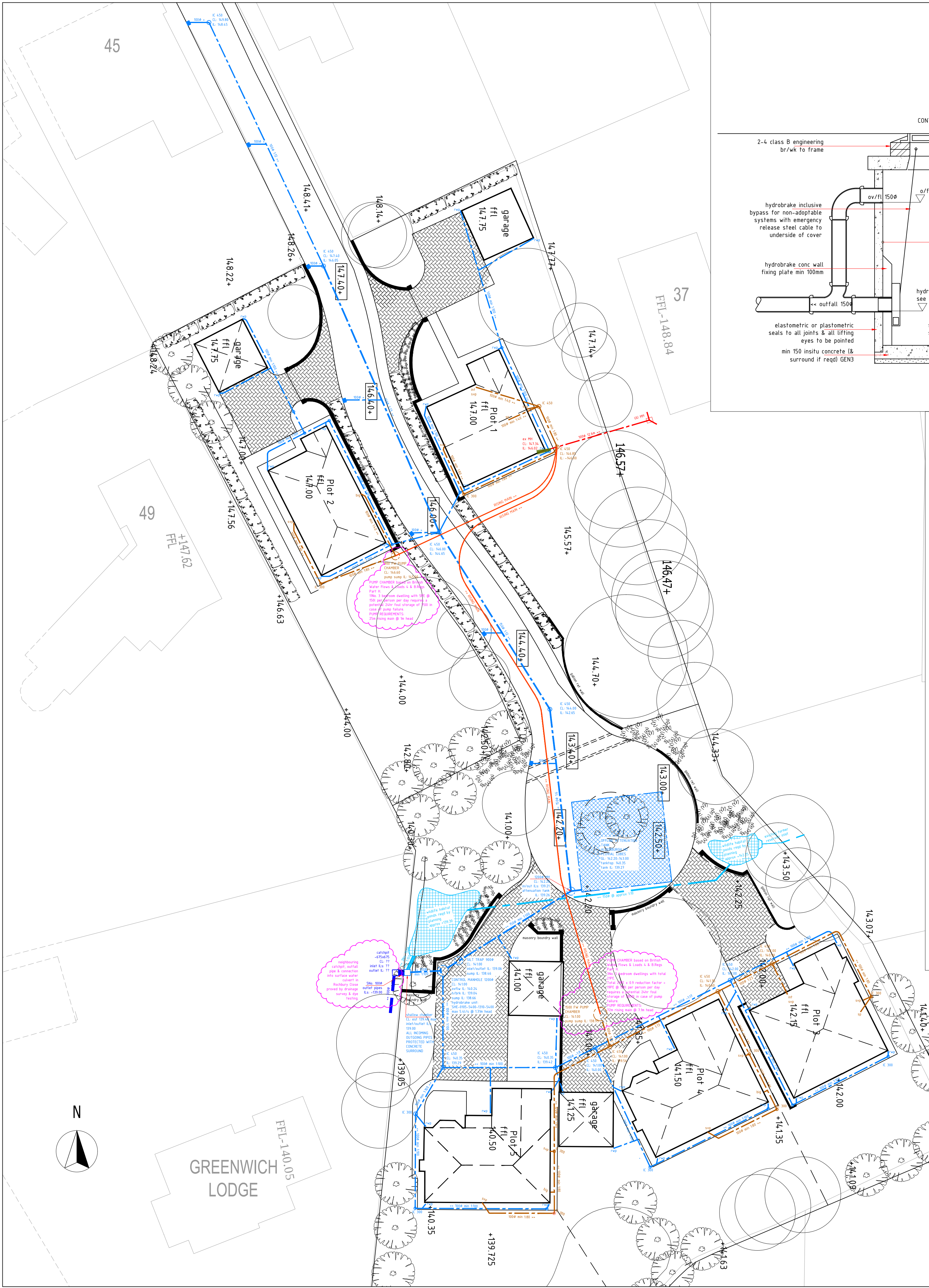
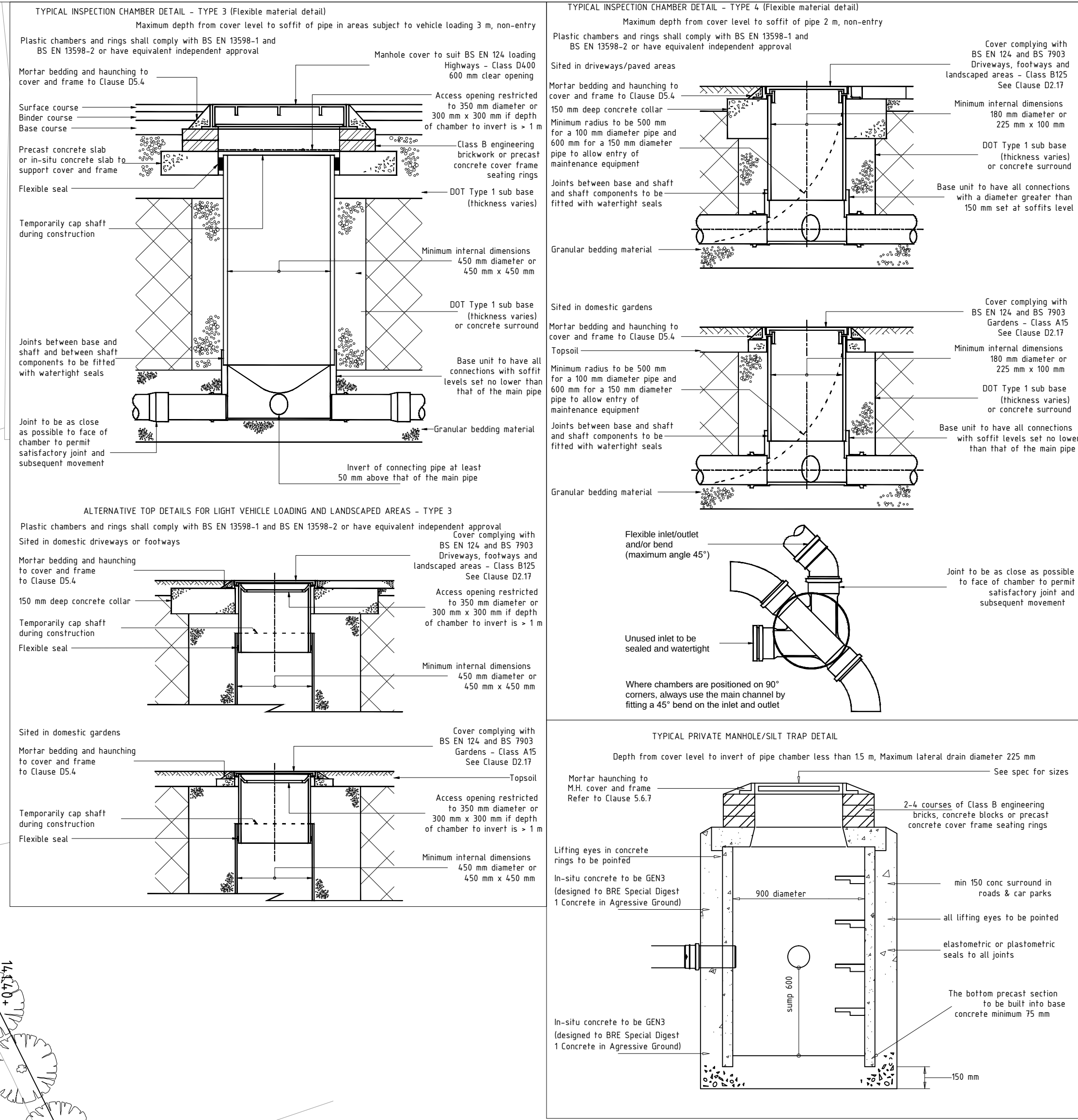




SW flow control & attenuation general arrangement detail 1:25



GENERAL NOTES
0.0 THIS DRAWING IS COPYRIGHT & IS SENT TO YOU IN CONFIDENCE IT MUST NOT BE COPIED, USED OR DISCLOSED, IN WHOLE OR IN PART, TO THIRD PARTIES WITHOUT WRITTEN PERMISSION. IT REMAINS THE PROPERTY OF T.J.B.A AND MUST BE RETURNED ON REQUEST.
0.1 THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT CONTRACTUAL DOCUMENTS.
0.2 All dims in mm unless p/w stated.
0.3 All levels to SITE DATUM.
0.4 Refer to architects details for SBM.
0.5 Contractor to confirm SOP/SOL's prior to ordering material/ construction.
0.6 Do not scale, the contractor must verify all dims prior to commencing shop drawings or work on site.
0.7 All work to be carried out in accordance with CDM 2015.
1.0 HIGHWAYS/ACCESS ROADS & PRIVATE DRIVES.
1.1 N/A refer to architects details.
2.0 DRAINAGE
2.1 To be read in conjunction with T J Booth Associates drainage calculations.
2.2 Manhole cover levels indicative only, to be adjusted to suit final finish site levels.
2.3 Sewers/manholes to be constructed in accordance with the water authorities sewers for adoption (edition as applicable), B. Regs. Approved Doc. H, and BS EN 752-4.
2.4 Class 5 granular bed and surround to all new sewers.
2.5 Sewers must have min 150th concrete surround if:
- adoptable assets with less than 12m of cover under highways or driveways;
- private assets with less than 900mm of cover under private driveways.
2.6 All conc including pipes and manholes to be sulphate resisting unless otherwise agreed in writing by eng.
2.7 Foul water must be to the following gradients in accordance with Bregs and Sewers For Adoption:
-1000' at gradients not less than 180 where at least 1 WC is connected and not less than 140 where no WC is connected.
-1500' foul gradients to be not less than 1:50 with at least 5 WCs connected.
2.8 Surface water must be to the following gradients in accordance with Bregs:
-1000' at gradients not less than 1:100.
-1500' foul gradients to be not less than 1:50.
2.8 Adoptable surface water must be to the following gradients in accordance with Sewers for Adoption:
-1000' at gradients not less than 1:60.
-1500' foul gradients to be not less than 1:100.
2.9 Sewers on UNITED UTILITIES network or to be part of S104 adoption to be in strict accordance with UNITED UTILITIES DEVELOPER CONSTRUCTION DETAILS, SEWERS FOR ADOPTION 7, and BUILDING REGULATIONS APPROVED DOCUMENT H.
2.10 FOR ADAPTABLE MH DETAILS, REFER TO UNITED UTILITIES DEVELOPER CONSTRUCTION DETAILS.
3.0 MANHOLES
3.1 Manhole diameters to be in accordance with SFA clause 2.9.3, and according to largest manhole pipe diameter:
Pipe dia MH dia
+315 1200
375-700 1500
750-900 1800
5.2 Rucker pipes (clause 5.6.6.2) to be the following lengths:
150-6000 0.6m;
+600-7000 1.0m;
+7500 1.25m.
3.2 Inspection chambers/manholes to have min 150granular surround in soft landscaping areas and not less than 150 conc surround to driveways/car parks.
3.3 Manhole covers and frames shall comply with the relevant provisions of bs. en 124 and shall be of non-rocking design which does not rely on the use of cushion inserts.
3.4 Cover sizes to be in strict accordance with adoptive undertakers standard requirements.
3.5 Cover strength (clause 5.7.1.1) comprising minimum strength for location as follows:
Roads/Highways D400 Vehicle Impact;
Car Parks C250 Light Vehicle loading;
Footway/Driveway B125 Occasional vehicle loading;
Gardens A15 Pedestrian & cyclist ONLY.
3.6 All manhole covers shall be the non-venting type (unless indicated otherwise) and shall have closed keyways.
3.7 Manhole frames (clause 5.6.7) to be set to level, bedded and haunched externally over the base and sides of the frame in mortar, in accordance with the manufacturers instructions. The frame shall be sealed on not less than 2 courses of class B engineering brick, on precast concrete masonry units or on precast concrete cover frame sealing rings to regulate the distance between the top of the cover and the top rung to no greater than 675mm. A mortar fillet shall be provided where the corners to an opening in a slab are chamfered and the brickwork is not flush with the edges of the opening.

DISCHARGE TYPE			
DISCHARGE TYPE	METHOD ADOPTED	REASONING	
1. into the ground (infiltration)	NO	Site investigation confirmed clay subsoil across the site. Site was also historically a reservoir. Site subsoil is unsuitable for infiltration.	
2. to a surface water body	YES	Site connects to a SW culvert in Rochbury Close, and SW will be discharged by this method.	
3. to a SW sewer, highway drain, or another drainage system	NO	Not required.	
4. to a combined sewer	NO	Combined sewers available on site for FW only.	

CHBA C153 TABLE 21.3 OPERATION & MAINTENANCE REQUIREMENTS FOR ATTENUATION STORAGE TANKS		
MAINTENANCE SCHEDULE	REQUIRED ACTION	TYPICAL FREQUENCY
Regular maintenance	Inspect and identify any areas that are not operating correctly. If required, take remedial action. Remove debris from the catchment surface (where it may cause risks to performance) For systems where rainfall infiltrates into the tank from above, check surface of filter for blockage by sediment, algae or other matter; remove and replace surface infiltration medium as necessary. Remove sediment from pre-treatment structures and/or internal forebays.	Monthly for 3 months then annually Monthly Annually Annually, or as required
Remedial actions	Repair/rehabilitate inlets, outlet, overflows and vents	As required
Monitoring	Inspect/check all inlets, outlets, vents and overflows to ensure that they are in good condition and operating as designed. Survey inside of tank for sediment build-up and remove if necessary.	Annually Every 5 years or as required

location plan 1:2500