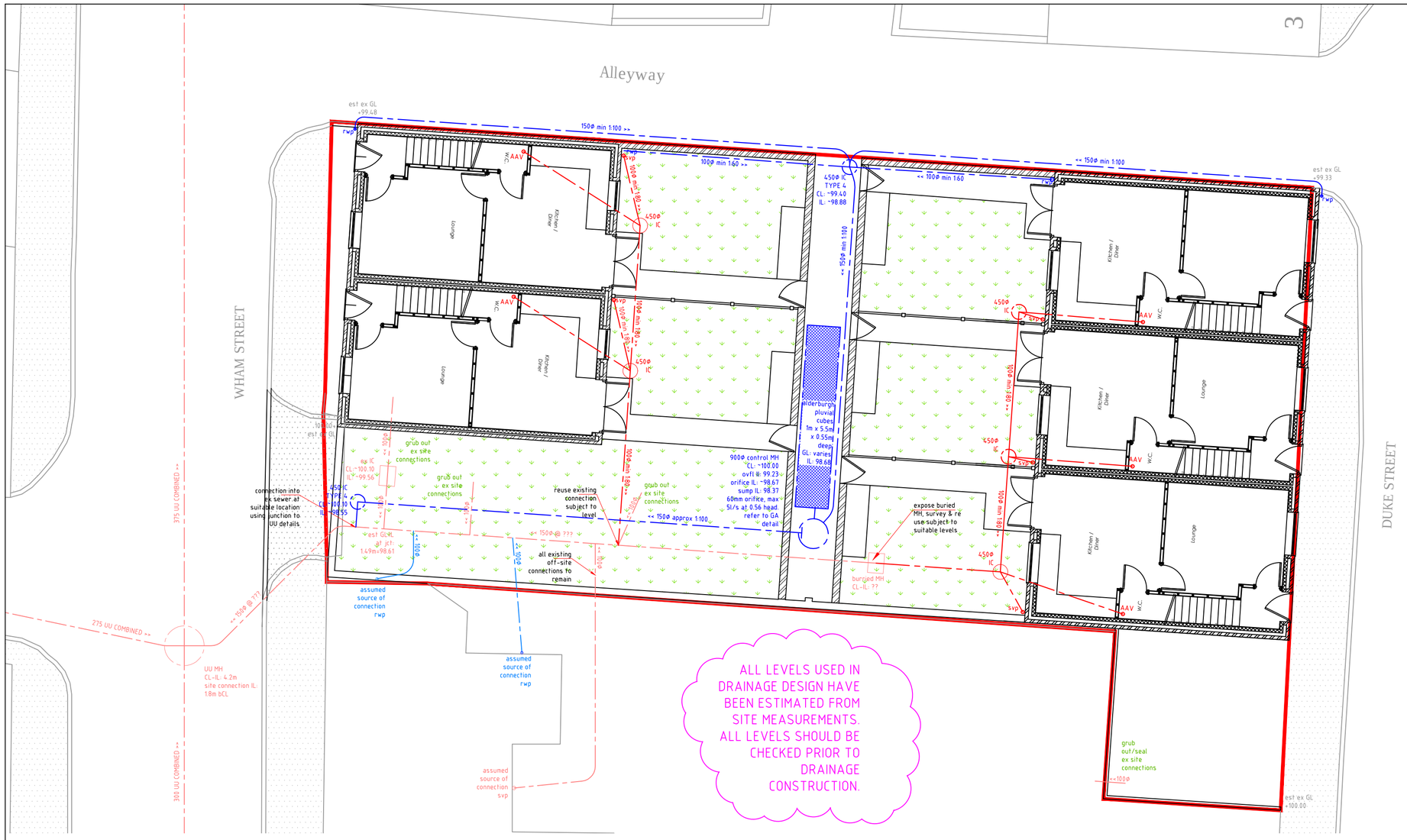


GENERAL NOTES

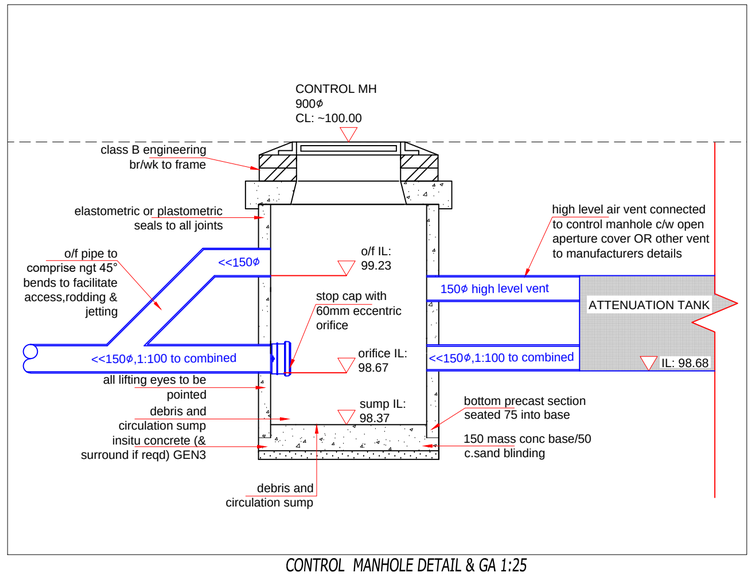
0.0 THIS DRAWING IS COPYRIGHT & IS SENT TO YOU IN CONFIDENCE IT MUST NOT BE COPIED, USED OR DISCLOSED, IN WHOLE OR IN PART, TO THIRD PARTIES WITHOUT WRITTEN PERMISSION. IT REMAINS THE PROPERTY OF TJBA AND MUST BE RETURNED ON REQUEST.
0.1 THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT CONTRACTUAL DOCUMENTS.
0.2 All dims in mm unless o/w stated.
0.3 All levels in m aOD unless o/w stated.
0.4 Refer to architects/surveyors 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 HIGHWAY/ROADS EXTERNAL WORKS.
1.1 N/A
2.0 DRAINAGE.
2.1 To be read in conjunction with T J Booth Associates drainage calculations, ref No: calc-tjba-hart-wham st-sw attenuation 100+40%-rev0.
2.2Manhole 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 (UNITED UTILITIES) developer details where s104 adoption is required, and to sewers for adoption (edition as applicable), B. Regs. Approved Doc. H, and BS EN 752-4.
2.4 Class S granular bed and surround to all new sewers.
2.5 Any sewers or drains with less than 1.2m of cover under adoptable highways (either during or after construction); Or with less than 900mm of cover under private access/driveways; to be protected with min 150mm thick. conc surround unless otherwise specified.
2.6 All conc including pipes and manholes to be sulphate resisting unless otherwise agreed in writing by eng.
3.0 FOUL WATER DRAINAGE
3.1 Foul water system laid as indicated and in line with the following: 100ø at gradients not less than 1:80 where at least 1 WC is connected and not less than 1:40 where no WC is connected. 150ø foul drain gradients to be not less than 1:150 with at least 5 WCs connected. Guidance in line with current b.regs and SFA.
4.0 SURFACE WATER DRAINAGE
4.1 All external hardstanding areas such as patios, pathways and drives to comprise permeable drainage systems, with falls to soft landscaping.
4.2 Roof areas only to be attenuated and controlled.
4.3 SW drainage of roof areas to be attenuated up to 100yr+40%CC via Alderburgh Heavy Duty Pluvial Cubes, controlled via a 60mm orifice limiting discharge to max 5l/s a max 0.56m head.
5.0 MANHOLES
5.1 Manhole diameters to be in accordance with SFA clause 2.9.3, and according to largest manhole pipe diameter:

Pipe dia	MH dia
<375	1200;
375-700	1500;
750-900	1800.

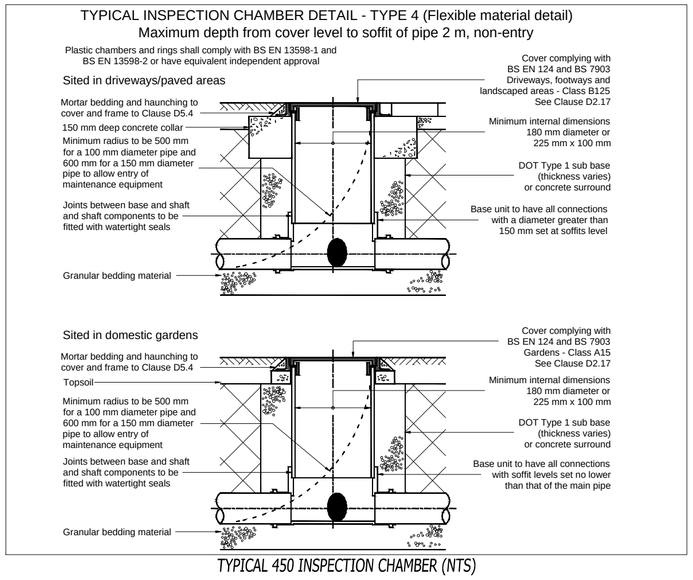
5.2 Rocker pipes (clause 5.6.6.2) to be the following lengths:
150-600ø:0.6m;
>600-700ø:1.0m;
>750ø:1.25m.
5.3 Inspection chambers/manholes to have min 150granular surround in soft landscaping areas and not less than 150 conc surround to driveways/car parks.
5.4 Manhole covers and frames shall comply 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.
5.5 Cover sizes and access in accord with SFA Table 2.3 & to be 600x600 in United Utilities & Yorkshire Water areas.
5.6 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.

5.7 All manhole covers shall be the non-venting type (unless indicated otherwise) and shall have closed keyways.
5.8 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 seated on not less than 2 courses of class B engineering brick, on precast concrete masonry units or on precast concrete cover frame seating 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.
6.0 GENERAL FINISHES
6.1 As per Architect details.



CONTROL MANHOLE DETAIL & GA 1:25



TYPICAL 450 INSPECTION CHAMBER (NTS)

SURFACE WATER DRAINAGE MAINTENANCE PLAN

Maintenance undertaken by site agreement.
Construction Stage: Attenuation tank and manhole to be isolated from flows during the construction phase of the development.
Attenuation should only be brought in to use after the drainage system has been flushed.
Habitation Phase: Sediment to be removed from pre treatment sump in control manhole annually.
All attenuation inlets, outlets, and vents to be checked annually, and cleared as required.

SURFACE WATER DRAINAGE HIERARCHY

INFILTRATION:
Unable to infiltrate due to impermeable subsoil.
Trial hole investigations revealed clay subsoil to ~3m depth across the site.
WATERCOURSE:
No watercourses in the local area.
SEWERS:
No surface water sewer in the local area.
United Utilties combined sewer on site and with existing connections. New connection point required at point subject to suitable depth.

PLANNING

AMENDMENTS/ ISSUES			
1	RMBC consultation	feb 2021	ds
0	original for drainage overlay	nov 2020	ds
REVISION	REASON/ CHANGE	DATE	BY

T J BOOTH ASSOCIATES
CONSULTING CIVIL & GEOTECHNICAL ENGINEERS
20A Eastgate Street
Rochdale
Lancashire
OL16 1DH
Tel:01706 868288

HART / WHAM STREET, HEYWOOD, ROCHDALE

PROPOSED DRAINAGE PLAN

FILE NAME: dwg-tjba-hart-wham st-171120.dwg

SCALE: 1 : 100 & as indicated @ A2