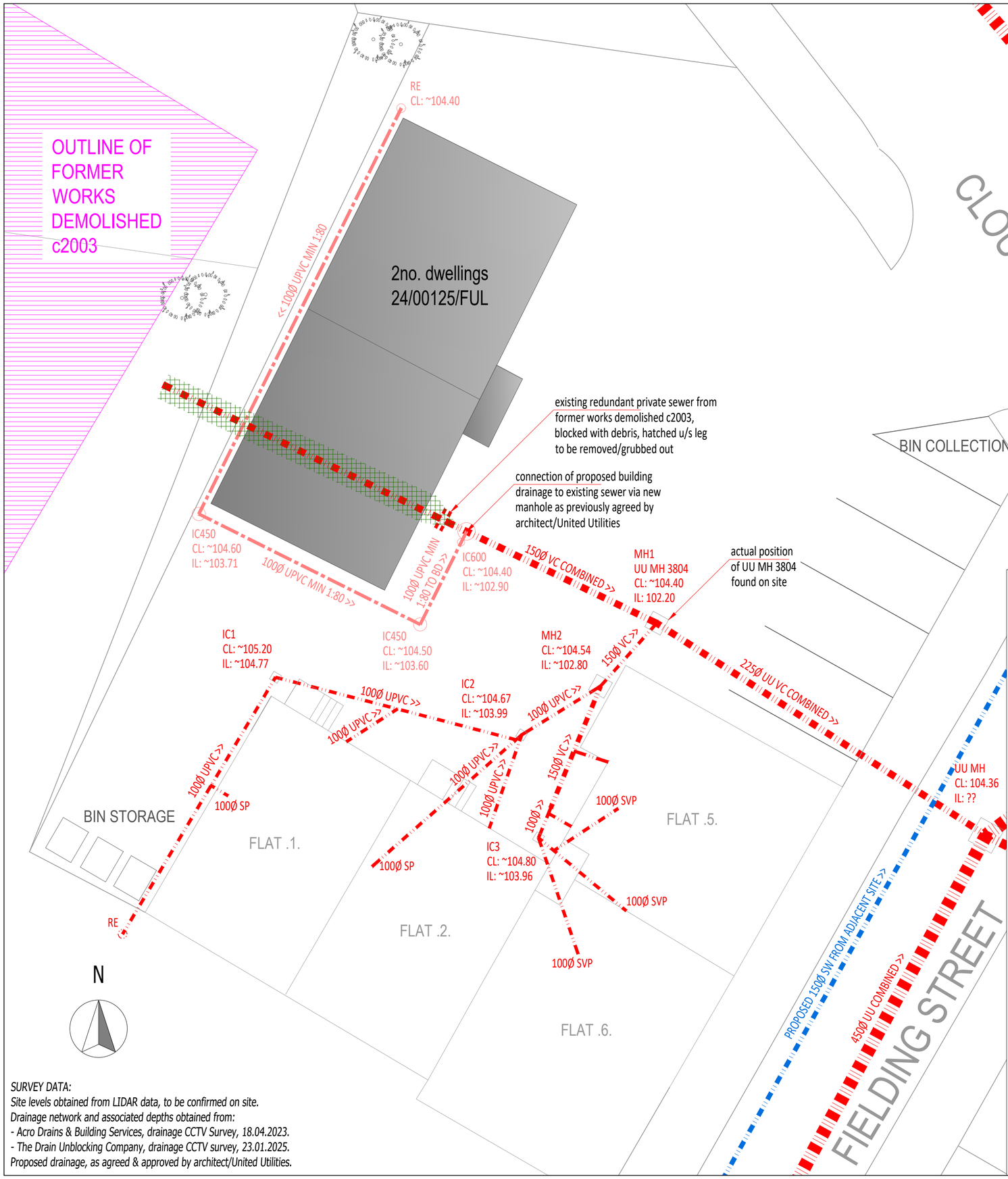
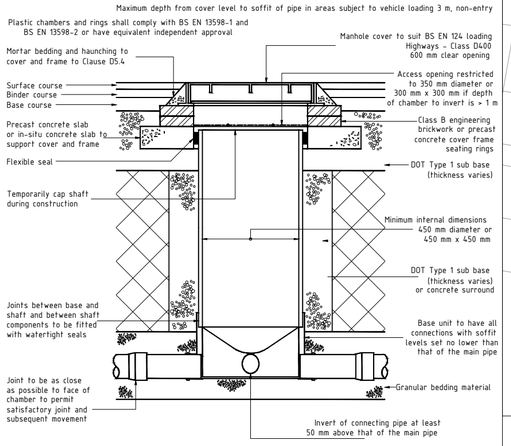


SURVEY DATA:
Site levels obtained from LIDAR data, to be confirmed on site.
Drainage network and associated depths obtained from:
- Acro Drains & Building Services, drainage CCTV Survey, 18.04.2023.
- The Drain Unblocking Company, drainage CCTV survey, 23.01.2025.
Proposed drainage, as agreed & approved by architect/United Utilities.

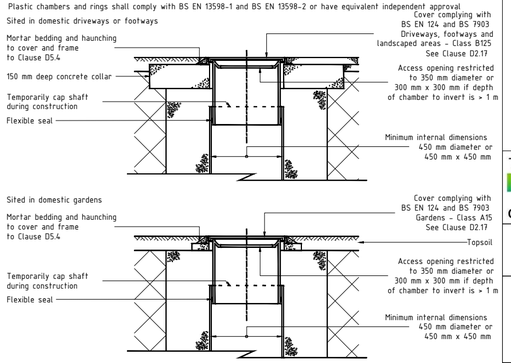
DRAINAGE KEY

EXISTING FOUL SEWER	
EXISTING COMBINED SEWER	
EXISTING SURFACE WATER SEWER	
PROPOSED FOUL SEWER	
PROPOSED COMBINED SEWER	
PROPOSED SURFACE WATER SEWER	
MANHOLE	MH
INSPECTION CHAMBER	IC
COVER LEVEL	CL
INVERT LEVEL	IL
SEWER BACKDROP	BD
SOIL & VENT PIPE	SVP
SOIL PIPE	SP
RAIN WATER PIPE	RWP
SURFACE WATER GULLY	SWG
FOUL GULLY	FWG

TYPICAL INSPECTION CHAMBER DETAIL - TYPE 3 (Flexible material detail)



ALTERNATIVE TOP DETAILS FOR LIGHT VEHICLE LOADING AND LANDSCAPED AREAS - TYPE 3



TYPICAL INSPECTION CHAMBER DETAILS (not to scale)

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 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.
2.0 DRAINAGE.
2.1 To be read in conjunction with T J Booth Associates Drainage Strategy Report.
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 S granular bed and surround to all new sewers.
2.5 Sewers must have min 150th concrete surround if:
-adoptable assets with less than 1.2m of cover under highways or driveways;
-private assets with less than 900mm of cover under private riveways.
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 b.regs and Sewers For Adoption:
-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 gradients to be not less than 1:150 with at least 5 WCs connected.
2.8 Surface water must be to the following gradients in accordance with b.regs:
-100Ø at gradients not less than 1:100.
-150Ø foul gradients to be not less than 1:150.
2.8 Adoptable surface water must be to the following gradients in accordance with Sewers for Adoption:
-100Ø at gradients not less than 1:60.
-150Ø foul gradients to be not less than 1:100.
2.9 All work on UU sewer to be in strict accordance with 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
<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.

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 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.

LOCATION PLAN
1:500

PLANNING ONLY

AMENDMENTS/ ISSUES

REVISION	REASON/ CHANGE	DATE	BY
1	updated as per RMBC request	dec 2025	ds
0	original as per LLFA request	may 2024	ds

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INDICATIVE DRAINAGE PLAN & DETAILS

FILE NAME: dwg-tjba-vrajitoru-83 fielding st-130524

SCALE: 1 : 100 & as indicated @ A2