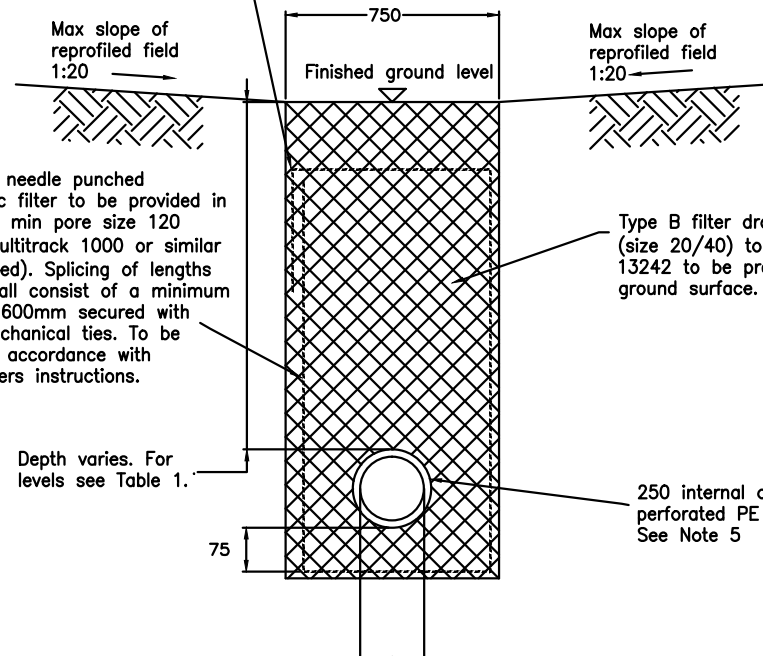


Geosynthetic filter layer to be overlapped with a min down tuck of 100.

Max slope of reprofiled field 1:20



Non woven needle punched geosynthetic filter to be provided in trench with min pore size 120 microns (Multitrack 1000 or similar and approved). Splicing of lengths of filter shall consist of a minimum overlap of 600mm secured with pins or mechanical ties. To be installed in accordance with manufacturers instructions.

Type B filter drain material (size 20/40) to BS EN 13242 to be provided up to ground surface.

Depth varies. For levels see Table 1.

250 internal diameter perforated PE pipe. See Note 5

TYPICAL FILTER DRAIN DETAIL  
SCALE 1:200 @ A1

S.O.P	Easting	Northing	Proposed Levels (m AOD)	
			Ground	Pipe Invert Level
SOP_14	439141.4839	432384.4844	52.800	52.075 (OF)
SOP_15	439140.9603	432383.1690	53.500	52.100
SOP_17	439145.2070	432402.6391	53.350	52.105
SOP_18	439148.7272	432420.2672	53.200	52.185
SOP_19	439140.2222	432378.6027	53.100	52.275

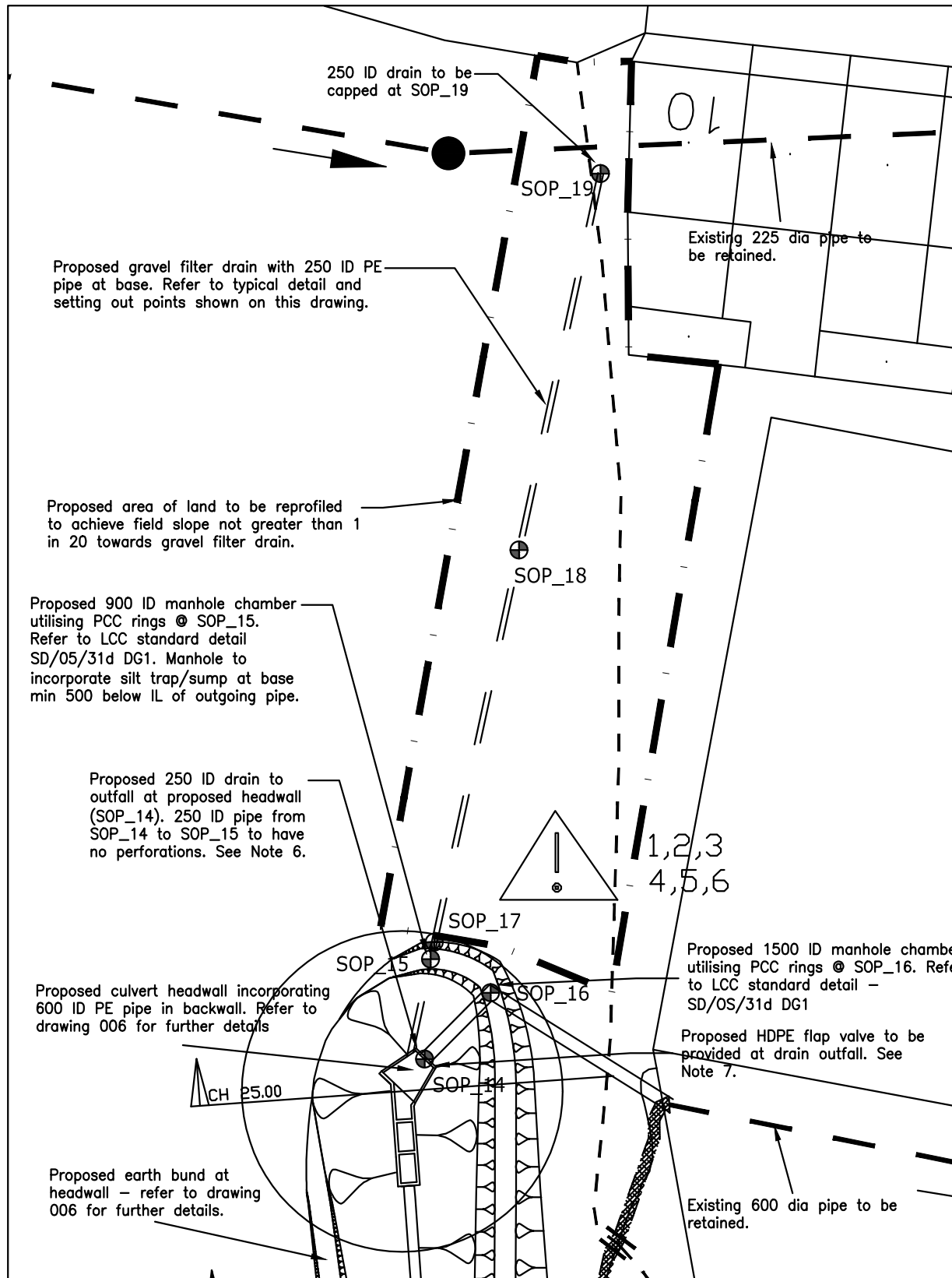
TABLE 1 – SETTING OUT POINTS

NOTES

- All dimensions are in millimetres unless otherwise stated.
- All levels are in metres above ordnance datum unless stated otherwise.
- DO NOT SCALE FROM THIS DRAWING
- All geotextile to be installed in accordance with manufacturers instructions. Specification as outlined on typical detail included on this drawing
- All pipes, joints and fittings to be plastic: PE or alternative suitable grade & approved. Pipe perforations for filter drain to be in accordance with clause 4.5 of BS4962 – "Specification for Plastic Pipes & Fittings for use in Subsoil Field Drains".
- Perforated pipe to extend between SOP\_15 & SOP\_19 only. Pipe between SOP\_14 & SOP\_15 to have no perforations & min 150 thick bed & surround from compacted single sized aggregate (14-20 size) to BS882.
- Invert level of filter drain outfall to be 52.075 as shown in Table 1. HDPE flap valve to be provided at drain outfall to suit 250 ID PE pipe. Flap valve to be in accordance with Althon standard detail provided or similar and approved.

LEGEND

- Approximate extents of proposed field area to be reprofiled to direct runoff towards proposed filter drain (400m<sup>2</sup>).
- ⊕ Setting out points.
- Existing 225 & 600 dia pipes downstream to be retained.
- Proposed 600 dia PE pipe.



Proposed gravel filter drain with 250 ID PE pipe at base. Refer to typical detail and setting out points shown on this drawing.

Proposed area of land to be reprofiled to achieve field slope not greater than 1 in 20 towards gravel filter drain.

Proposed 900 ID manhole chamber utilising PCC rings @ SOP\_15. Refer to LCC standard detail SD/05/31d DG1. Manhole to incorporate silt trap/sump at base min 500 below IL of outgoing pipe.

Proposed 250 ID drain to outfall at proposed headwall (SOP\_14). 250 ID pipe from SOP\_14 to SOP\_15 to have no perforations. See Note 6.

Proposed culvert headwall incorporating 600 ID PE pipe in backwall. Refer to drawing 006 for further details

Proposed earth bund at headwall – refer to drawing 006 for further details.

Proposed 1500 ID manhole chamber utilising PCC rings @ SOP\_16. Refer to LCC standard detail – SD/05/31d DG1

Proposed HDPE flap valve to be provided at drain outfall. See Note 7.

Existing 600 dia pipe to be retained.

GRAVEL FILTER DRAIN – PLAN  
N.T.S

SAFETY HEALTH AND ENVIRONMENTAL INFORMATION	
IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS:-	
<b>CONSTRUCTION</b>	
▲ 1 - WORKING IN CLOSE PROXIMITY TO PUBLIC & LANDOWNERS	
▲ 2 - UNDERGROUND (BURIED) SERVICES	
▲ 3 - HAZARDOUS AND INVASIVE PLANT SPECIES REQUIRING CONTROL AND/OR REMOVAL	
▲ 4 - POSSIBLE CONTAMINATED LAND	
▲ 5 - WORKING IN WATERCOURSES	
▲ 6 - SITE AT RISK OF FLOODING	
<b>MAINTENANCE/CLEANING/OPERATION</b>	
- WORKING IN CLOSE PROXIMITY TO PUBLIC & LANDOWNERS	
- HAZARDOUS AND INVASIVE PLANT SPECIES REQUIRING CONTROL AND/OR REMOVAL	
- POSSIBLE CONTAMINATED LAND	
- WORKING IN WATERCOURSES	
- SITE AT RISK OF FLOODING	
<b>DECOMMISSIONING/DEMOLITION</b>	
- WORKING IN CLOSE PROXIMITY TO PUBLIC & LANDOWNERS	
- UNDERGROUND (BURIED) SERVICES	
- HAZARDOUS AND INVASIVE PLANT SPECIES REQUIRING CONTROL AND/OR REMOVAL	
- POSSIBLE CONTAMINATED LAND	
- WORKING IN WATERCOURSES	
- SITE AT RISK OF FLOODING	

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HAWTHORN TERRACE FLOOD ALLEVIATION SCHEME  
GRAVEL FILTER DRAIN DETAIL

AMENDMENTS	DRAWN	CHECK	DATE	DRAWN BY	SCALE
FIRST APPROVED	SG			SG	AS SHOWN
				AutoCAD BY	
				INITIALS	DATE
				CJE	5/18
				CHECKED BY	
				INITIALS	DATE



FRM/10127/CON/012	
FOR CONSTRUCTION	
STATUS:	<b>DRAFT</b>
DATE:	August 2015