LEGEND

- DENOTES SITE BOUNDARY
- FFL: 17.100 — PROPOSED FFL's
- S1 — PROPOSED SURFACE WATER SEWER
- F1 — PROPOSED FOUL SEWER
- PROPOSED SURFACE WATER DRAGOUT
- PROPOSED FOUL DRAGOUT
- G — PROPOSED GULLIES
- EXISTING MANHOLE/SEWER
- PROPOSED COMBINED MANHOLE

Existing Manhole cover and frame to be adjusted to new proposed finished levels

Existing Manhole cover and frame to be adjusted to new proposed finished levels

The exact location of the 900Ø combined sewer to be located and surveyed on site

Surface water connection to be made to existing watercourse via saddle connection.

APPROXIMATE ROUTE OF 900Ø SEWER
EXISTING COMBINED SEWER

4250 x 2150 (MAIN RIVER WATERCOURSE)

300Ø ADOPTED SEWER

375Ø ADOPTED SEWER

450Ø ADOPTED SEWER

FFL 16.950
FFL 17.100
FFL 17.100
FFL 17.100
FFL 17.250
FFL 16.950
FFL 16.800
FFL 16.650
FFL 16.950
FFL 16.500
FFL 16.350
FFL 16.800
FFL 16.500
FFL 16.650
FFL 16.800

IL:15.35
Dragout Coordinate
E:343187.623
N:388821.575

IL:15.18
Dragout Coordinate
E:343201.863
N:388824.517

IL:15.893
Dragout Coordinate
E:343170.237
N:388813.015

150mm Ø

S1
CL:16.592
IL:15.250

F1
CL:16.627
IL:15.025

Diam 225 Grad 1 in 30 Type CLAY
Diam 150 Grad 1 in 70 Type CLAY

S2
CL:16.320
IL:14.319 225Ø
IL:13.644 900Ø

IL:15.479
Dragout Coordinate
E:343197.682
N:388784.061

IL:15.325
Dragout Coordinate
E:343217.934
N:388780.492

IL:15.684
Dragout Coordinate
E:343206.319
N:388774.292

F2
CL:16.199
IL:14.414

Diam 900 Grad 1 in 400 Type CONC
Diam 150 Grad 1 in 150 Type CLAY

S3
CL:16.107
IL:13.578

F3
CL:16.140
IL:14.299

IL:15.638
Dragout Coordinate
E:343235.949
N:388777.369

S4
CL:16.128
IL:13.501

900Ø Grad 1 in 400 Type CONC

225Ø Grad 1 in 150 Type CLAY

IL:15.588
Dragout Coordinate
E:343252.701
N:388789.579

S5 - Hydro-Brake Chamber
CL: 16.344
IL: 13.480
Type: Optimum
Design Flow 5L/S
Design Head 1.4

F4
CL:15.925
BD IL:14.181
IL:12.558

E=343245.773
N=388763.992

EXUUMH 2704
CL:15.745
IL:12.500

EXUUMH 2807

MH CL:16.80 IL:15.53 UTL (Sunken)

MH CL:16.80 IL:15.53

MH CL:16.86 IL:14.86

MH CL:16.85 (Flooded)

N

NOTES:

1. ALL ADOPTABLE DRAINAGE WORKS HAVE BEEN DESIGNED AND ARE TO BE CONSTRUCTED IN ACCORDANCE WITH "SEWERS FOR ADOPTION 6TH EDITION" AND UU SUPPLEMENT GUIDELINES AND STANDARD DETAILS

2. ALL CLAY PIPE WORK SHALL BE EXTRA STRENGTH CLAYWARE TO B.S EN 295:1991 PART 1

3. ALL PRECAST CONCRETE PIPEWORK SHALL BE TO THE CLASS STATED ON THE DRAWINGS IN ACCORDANCE WITH B.S EN 1916:2002. ALSO, ALL MANHOLES AND CHAMBERS SHALL BE TO B.S EN 1917:2002

4. THE CONTRACTOR MAY ELECT TO USE REINFORCED PVC PIPES AS COVERED BY B.S 4660:2000 & B.S EN 1401-1. STRUCTURED WALL UPVC PIPES TO COMPLY WITH WIS 4-35-01 UPTO AND INCLUDING 300MM. (BY PRIOR AGREEMENT WITH ADOPTING AUTHORITY) MAX. PIPE LENGTH TO BE 3.0M

5. ALL LEVELS RELATE TO TOPOGRAPHICAL SURVEY DATUM

6. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS

7. PLOT DRAINAGE CONNECTIONS TO SEWERS MUST BE 150MM DIAMETER AND UNLESS OTHERWISE STATED LAID TO THE INVERT SHOWN.

8. LEVELS GIVEN ON DRAGOUT CHAMBERS ARE INCOMING PIPE LEVELS

9. PLOT DRAINAGE RUNS TO BE KEPT WITHIN THE CURTILAGE OF THE PLOT THEY SERVE WHEREVER POSSIBLE.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ANY EXISTING INVERT LEVELS AND EXISTING SITE LEVELS (EXISTING BOUNDARY LEVELS) INDICATED ON DRAWINGS ARE CORRECT BEFORE WORKS COMMENCE.

11. ALL CONNECTIONS TO ADOPTABLE SEWERS SHALL BE MANUFACTURED JUNCTION PIPES. SADDLE CONNECTIONS WILL NOT BE PERMITTED, UNLESS SPECIFIED.

12. ALL SEWERS FOR ADOPTION WITH GREATER THAN 1.20M COVER IN ROADS OR 0.9M COVER IN FIELDS SHALL HAVE CLASS S GRANULAR BED AND SURROUND.

13. ANY SEWER FOR ADOPTION WITH LESS THAN 1.2M COVER IN ROADS OR 0.9M COVER IN FIELDS SHALL HAVE A MINIMUM OF 150MM ST4 CONCRETE SURROUND. FLEXIBILITY SHALL BE MAINTAINED BY THE PROVISION OF FLEXCELL OR SIMILAR APPROVED JOINT FILLER BREAKS IN THE CONCRETE SURROUND AT EACH PIPE JOINT

14. IT IS THE RESPONSIBILITY FOR THE CONTRACTOR TO CHECK ALL ONSITE EXISTING GROUND LEVELS PRIOR TO COMMENCING AND IF THERE ARE ANY DISCREPANCIES THE CONTRACTOR MUST REPORT TO THE ENGINEER IMMEDIATELY

15. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE DRAINAGE AUTHORITY OF THE COMMENCEMENT OF ANY DRAINAGE WORKS AND TO COMPLETE ANY REQUIRED SEWER CONNECTION FORMS INCLUSIVE OF PAYING ANY REQUIRED FEES. THE CONTRACTOR MUST ALLOW FOR THE SUPERVISION OF THE SEWER CONSTRUCTION WORKS BY THE LOCAL AUTHORITY AND NOTIFY THE SUPERVISING OFFICER, GIVING NOTICE WHICH IN ACCORDANCE WORTH THE L.A REQUIREMENTS.

16. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO APPLY FOR ANY REQUIRED ROAD OPENING PERMITS WITH THE LOCAL AUTHORITY INCLUDING THE PAYMENT OF ANY FEES

17. BEFORE COMMENCING ANY WORKS ON SITE, THE CONTRACTOR MUST CONTACT THE RELEVANT STATUTORY UNDERTAKER AND BE IN POSSESSION OF THE LATEST AVAILABLE DRAWINGS FROM THE STATUTORY UNDERTAKERS WHICH SHOWS DETAILS OF THEIR SERVICES/APPARATUS.
THE CONTRACTOR MUST CONFIRM EXACT LOCATION AND DEPTH OF ANY SERVICES/APPARATUS BY THE USE OF ELECTRO-LOCATION OR SIMILAR DEVICES AND BY HAND DUG TRIAL HOLES.
MECHANICAL EXCAVATOR, POWER TOOLS ETC. MUST NOT BE USED TO LOCATE EXISTING SERVICES/APPARATUS.

Rev:	Description:	Date:	By:	Chkd:
C	Revised in accordance with United Utilities Comments (25.06.15) Foul Outfall revised - connection to Existing UU manhole 2704	25.06.15	PH	LM
B	Revised in accordance with United Utilities Comments; System 'raised' in order to connect to culvert at a higher level. Latest Architects Layout added.	08.04.15	PH	LM
A	Revised in accordance with Client Comments; Plots 6-11 FFL's amended.	24.02.15	PH	LM

Status: APPROVAL

Client: BOWSALL LTD

Project: NAYLORSFIELD DRIVE
BELLE VALE
LIVERPOOL

Drg Title: PROPOSED DRAINAGE LAYOUT

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Scale:	Size:	First Issue:	Drawn:	Checked:
1:250	A1	NOV 14	PH	RA

Drg No: ELL-383-BW-C-DR-00-01 Rev: C

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