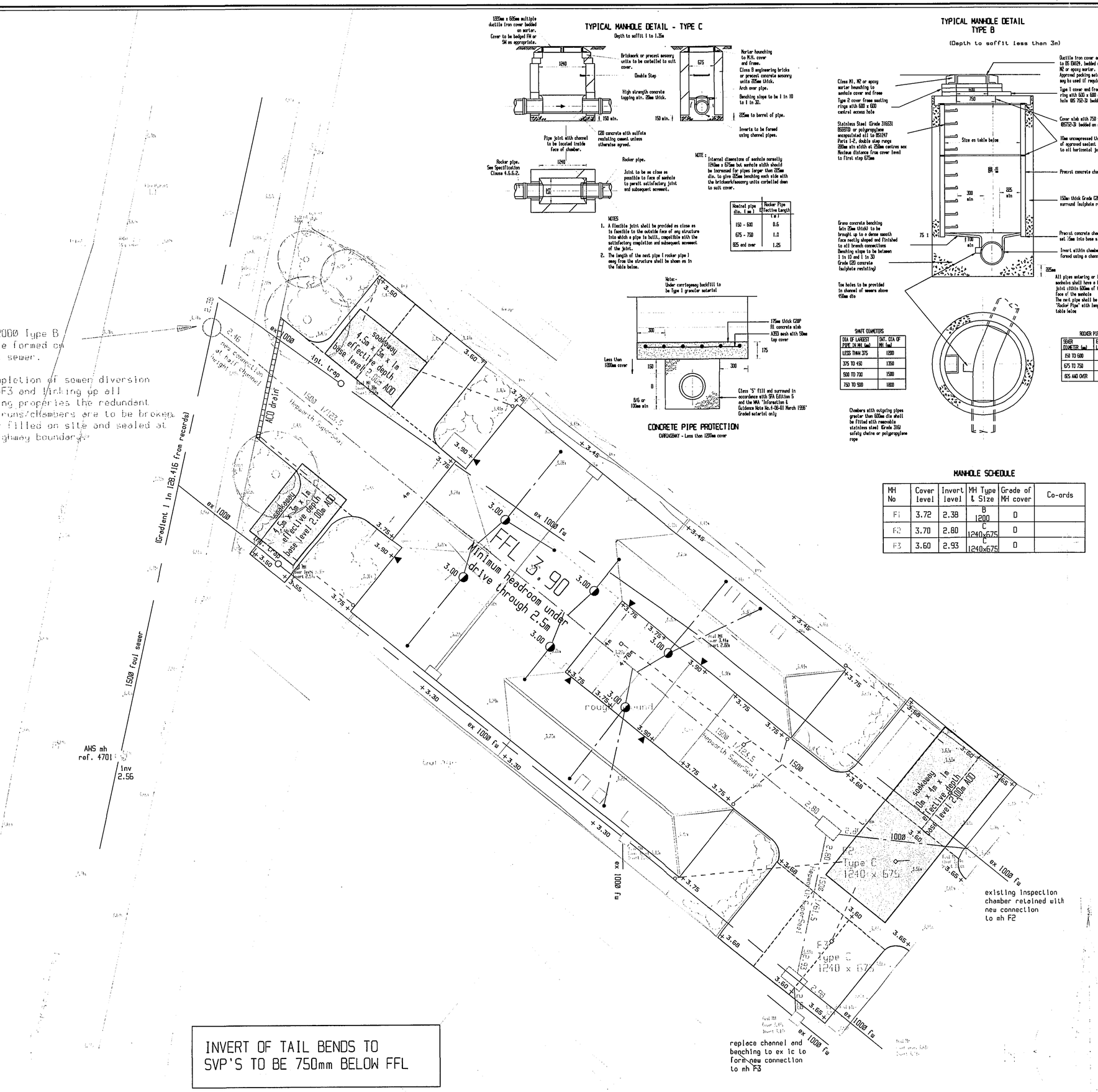
F1

New 12000 Type B manhole formed on public sewer.

On completion of sewer diversion F1-F2-F3 and linking up all existing properties the redundant drain runs/chambers are to be broken out or filled on site and sealed at the highway boundary.



TYPICAL MANHOLE DETAIL - TYPE C

NOTE : Internal dimensions of manhole normally 1240mm x 675mm but manhole width should be increased for pipes larger than 225mm dia. to give 225mm benching each side with the brickwork/masonry units corbelled down to suit cover.

Nominal pipe dia. (mm)	Rocker Pipe Effective Length (m)
150 - 600	0.6
675 - 750	1.0
825 and over	1.25

NOTES
1. A flexible joint shall be provided as close as is feasible to the outside face of any structure into which a pipe is built, compatible with the satisfactory completion and subsequent movement of the joint.
2. The length of the next pipe (rocker pipe) away from the structure shall be shown as in the table below.

Note - Under carriageway backfill to be Type 1 granular material

CONCRETE PIPE PROTECTION

CARRIAGEWAY - Less than 1200mm cover

TYPICAL MANHOLE DETAIL TYPE B

(Depth to soffit less than 3m)

SHAFT DIAMETERS	
DIA OF LARGEST PIPE IN MH (mm)	INT. DIA OF MH (mm)
LESS THAN 375	1200
375 TO 450	1350
500 TO 700	1500
750 TO 900	1800

ROCKER PIPES	
SEWER DIAMETER (mm)	EFFECTIVE LENGTH (m)
150 TO 600	600
675 TO 750	1000
825 AND OVER	1250

Chambers with outgoing pipes greater than 600mm dia shall be fitted with removable stainless steel Grade 316 safety chains or polypropylene rope

MANHOLE SCHEDULE

MH No	Cover level	Invert level	MH Type & Size	Grade of MH cover	Co-ords
F1	3.72	2.39	B 1200	D	
F2	3.70	2.80	C 1240x675	D	
F3	3.60	2.93	C 1240x675	D	

DRAINAGE NOTES

All works to comply with Building Regulations 2000 Approved Document H 2002 Edition
Private drain connections to adoptable sewers to be clayware pipes. Remaining private drains to be 110mm dia. U.P.V.C. or 100mm clayware unless stated.
Private sewers serving more than 10 dwellings to be 150mm dia

All pipe chambers and fittings to be installed, bedded and backfilled in accordance with the manufacturers instructions.

Private drains and sewers which pass adjacent to building foundations to be constructed in accordance with Part H.1. of the Building Regulations.

All private drains to incorporate preformed inspection and shallow access chambers where possible.

Traditional chambers (private) to be constructed using precast concrete sections with 150mm concrete surround.

Depth to I.L.	Min. chamber size (internal).	
0.6m or less	225mm x 100mm or 150mm dia	
0.9m or less	450mm x 450mm (normally a preformed chamber, 450mm dia)	
1.2m or less	450 x 450mm (normally a preformed chamber, 450mm dia)	
1.5m or less	1200mm x 675mm or 1200mm dia.	(pipe up to 225mm dia only)
Over 1.5m	1200mm x 1200mm or 1200mm dia.	(pipe up to 225mm dia only)

Rainwater downpipes to be connected directly to surface water drain via 68/110mm adaptors, removable to allow for rodding.

Position of yard gullies shown in garage drives are nominal only and may be adjusted on site.

All drains in the vicinity of proposed trees to be constructed in accordance with the requirements of current N.H.B.C. standards.
All back inlet gullies to be roddable.

ACEPTABLE DRAINAGE LEGEND

Existing foul water sewer .....
Existing surface water sewer .....
Proposed foul water sewer ..... (to be adopted)
Proposed surface water sewer ..... (to be adopted)
Proposed backdrop ..... (on adopted sewer)
Proposed trapped road gully ..... (150mm outlet)

PRIVATE DRAINAGE LEGEND

Proposed foul water drain .....
Proposed surface water drain .....
Proposed inspection chamber (traditional) ..... or
Proposed preformed inspection chamber (depth 0.9m/1.2m or less) ..... or
Proposed preformed inspection chamber (depth 600mm or less) ..... or
Proposed shallow access chamber ..... (normally preformed 225mm or 250mm dia)
Proposed rodding eye .....
Proposed chamber invert level 7.50
Proposed trapped gully in drives .....
Suspended slab, where appropriate 55
Proposed slab level 9. 9.750
Proposed rubble soakaway with 33% voids.....
Target levels to car parks 7.800

rsp... o sp... ● sp vlv... "Arpi" valve ● s/c... o stk... o blg... ■ vent pipe... required at head of system o vent

NOTE

Where durgo valves are used they should not adversely affect the amount of ventilation necessary for the below ground system which is normally provided by the open stacks of the sanitary pipework.

Soakaway design is based on an infiltration rate of 3.56×10^{-3} and a maximum groundwater level of 2.00m AOD.

Rev. No.	REVISION	Date	Drawn By	Checked By
A	Manhole details and schedule added for foul sewer diversion. F2 to F3 now 1500. Gradient of F1 to F2 revised to suit new connection level at F1.	3.1.06	JMW	AJMB
B	Soakaway drainage added.	9.1.06	AJMB	AJMB

Written dimensions to be taken. Do not scale off the drawing.
Any discrepancies, written or scaled, should be brought to the attention of the engineer immediately.
This drawing to be read in conjunction with the relevant Bills of Quantities and Local Authority Specification.
CDM NOTE: The design has been undertaken as far as possible to avoid risks to health and safety or to reduce and control the effects of any unavoidable risks.
All relevant information identifying the unavoidable risks has been passed to the planning supervisor for inclusion in the Health & Safety plan.
The Health & Safety plan will be issued by the planning supervisor with these drawings.

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Tel 01767 317244
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Project
Proposed Development at:-
St.Thomas's Road, Spalding

Drawing Description
Drainage Layout

Client
Fieldview Homes Ltd
St. Helens Cottage
146 Pinchbeck Road
Spalding
Lincs, PE11 1QN

Drawing Number
E1819/1/B

Drawn By GL
Date 7.12.05

Scale 1: 100

Architect
Robert Doughty
32 High street
Helpringham
Nr Sleaford
Lincs, NG34 0RA

Checked By
Date