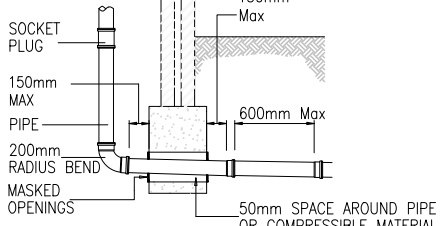
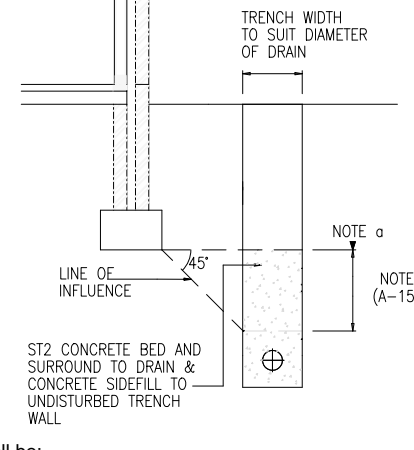


NOTES

- This drawing to be read in conjunction with all relevant Architects and Engineers drawings and specifications.
- Dimensions are in millimetres unless noted otherwise.
- Original topographic survey undertaken by 3D Services Limited.
For full topographic survey information see drawing 19/06/01 by 3D Services.
All levels based on O.S. by G.P.S.
- Existing levels shown thus: $+5.775$
- Before excavation commences, the Contractor shall ascertain the depths, sizes and locations of all services to be crossed. Any conflicts in levels between new works and existing services shall be notified to the Engineer.
- All drainage shall be in accordance with Building Regulations 2002: Part H & W.S.A. Sewers for Adoption 7th edition.
- Details of existing sewers & drains shall be confirmed by the contractor on site prior to the commencement of works.
- Sewers of different diameters shall be laid soffit to soffit in manholes, unless backdrops are detailed.
- Private drains passing through walls and footings are to be sleeved and a 600mm length of rocker pipe shall be laid on each side of the wall or footing. Runs under building shall have a type 'S' bed and surround, unless depth below underside of slab is less than 300mm where a 150mm bed and surround of concrete is to be used. Where pipes pass beneath foundations 600mm length rocker pipes shall be laid on each side. Below is shown a typical detail of a pipe sleeved through a foundation:

- Manhole (M.H.) covers and inspection chamber (I.C.) shall be adjusted to suit final surface levels.
- Where trench foundation levels lie above original levels, levels shall be made up with either well compacted layers of D.O.T type 1 or mix ST2 concrete.
- For positions of SVP's stub stacks and rainwater pipes see detailed Architects layouts.
- Minimum gradients for pipes where no gradient is shown shall be 1:80.
- Dimensions of M.H. on private drains and sewers to be in accordance with requirements of the Building Regulations.
- Drainage trenches lower than foundations:
a) Where drainage trench is within 1.0 distance of a building the trench is to be filled with concrete mix ST2 up to the level of the foundation, in accordance with Building Regulation 2002: Part H, diagram 8.
b) Where drainage trench is distance 'A' from footing and the depth of trench below foundation level is greater than 'N' the lower trench shall be filled with concrete mix ST2 such that the top level of concrete infill is no less than (A' - 150mm) below foundation level. Notes a) and b) are represented diagrammatically below:


- Pipe materials shall be:
a) For external private drain runs:
i) Clay pipes, extra strength or super strength in accordance with BS EN 295: 1991
ii) UPVC pipes in accordance with BS 4660 & BS 5481: 1989 (flexible pipes)
iii) Ductile iron pipe work in accordance with BS EN 598, as Stanton Integral.
b) For long crossings under building footprint:
i) Clay pipes, extra strength or super strength in accordance with BS EN 295: 1991
ii) Definition of 'rigid' and 'flexible' pipes shall be as Building Regulations Part H, table 7.
- Flexible pipes - Where private flexible pipes have more than 900mm cover under vehicular areas and more than 600mm cover under gardens, bedding and backfill shall be Type S as shown on drawing STD 01.85.
For special protection where pipes are laid with less cover see notes below:
a) Where private flexible pipes have less than 900mm cover under vehicular areas, a reinforced concrete bridging slab shall be used (see drawing STD 01.85) Reference Building Regulations 2002: Part H.
b) Where private flexible pipes have less than 600mm cover under gardens, concrete paving slabs laid as bridging slabs shall be used (see drawing STD 01.85.) Reference Building Regulations 2002: Part H.
- Rigid pipes - Bedding and backfill shall be Type 'S' as shown on drawing STD 01.85, except on lengths where special protection is required (see notes below):
a) Where $\varnothing$ 100mm private rigid pipes have less than 400mm cover under vehicular areas, a Type 'Z' concrete surround shall be used (see drawing STD 01.85) Reference Building Regulations 2002: Part H.
b) Where $\varnothing$ 100mm private rigid pipes have less than 300mm cover under garden areas, a Type 'Z' concrete surround shall be used (see drawing STD 01.85) Reference Building Regulations 2002: Part H.
c) Where $\varnothing$ 150mm private rigid pipes have less than 600mm cover under any areas, a Type 'Z' concrete surround shall be used (see drawing STD 01.85) Reference Building Regulations 2002: Part H.
- Private storm and foul drainage connections shall be detailed by the Architect.
- All external rainwater down pipes shall discharge through a proprietary bottle gully as shown on drawing STD 01.12.
- Trenches below existing carriageways and parking areas shall be reinstated with D.O.E Type 1 material in accordance with standard detail STD 02.05.
- Not used.
- Gullies shall be in accordance with the gully schedule.
- All utility covers & frames within the extent of the works shall be adjusted as necessary. The Contractor shall ensure that all services within vehicular areas have appropriate grade covers & frames as shown: Vehicular areas: D400. Pedestrian areas: B125.
- Where drains are to be abandoned they shall be removed or infilled by grouting in accordance with The Civil Engineering Specification for the Water Industry - 6th Edition, clause 5.23. Drainage runs shall be CCTV Surveyed prior to being abandoned to ascertain whether any 'blind' junctions exist.
- Redundant / abandoned gullies, soakways and manholes shall be broken out to a depth of 600mm then infilled with foamed concrete.
- All internal rain water pipes and foul outlets that do not connect directly to an inspection chamber shall have a rodding access provided above floor level for future maintenance purposes. Pre-formed connections shall be installed for all 'Y' and 'T' junctions.

REV	DESCRIPTION	CHECKED	DATE
P8	RETAIN UNIT FFL SHOWN AT 6.450m.	-	PF-14-02-22
P7	SHALL BE DETAILED TO SOUTH EAST OF BUILDING HEADWALLS 'A' & 'B' ADDED. THRESHOLD DRAINS ADDED.	-	PF-12-05-21
P6	PRECAST BOX CULVERTS SHOWN AS STORAGE TANKS IN LIEU OF PLASTIC CRATE SYSTEM.	-	PF-09-04-21
P5	DRAINAGE CHANNEL REPOSITIONED. CHAMBER SSA ADDED.	-	PF-25-11-20
P4	REDRAWN WITH FINISHED FLOOR LEVEL = 6.650m.	-	PF-29-10-20
P3	REDRAWN WITH FINISHED FLOOR LEVEL = 6.650m.	-	PF-15-06-20
P2	REDRAWN WITH FINISHED FLOOR LEVEL = 6.200m.	-	PF-29-05-20

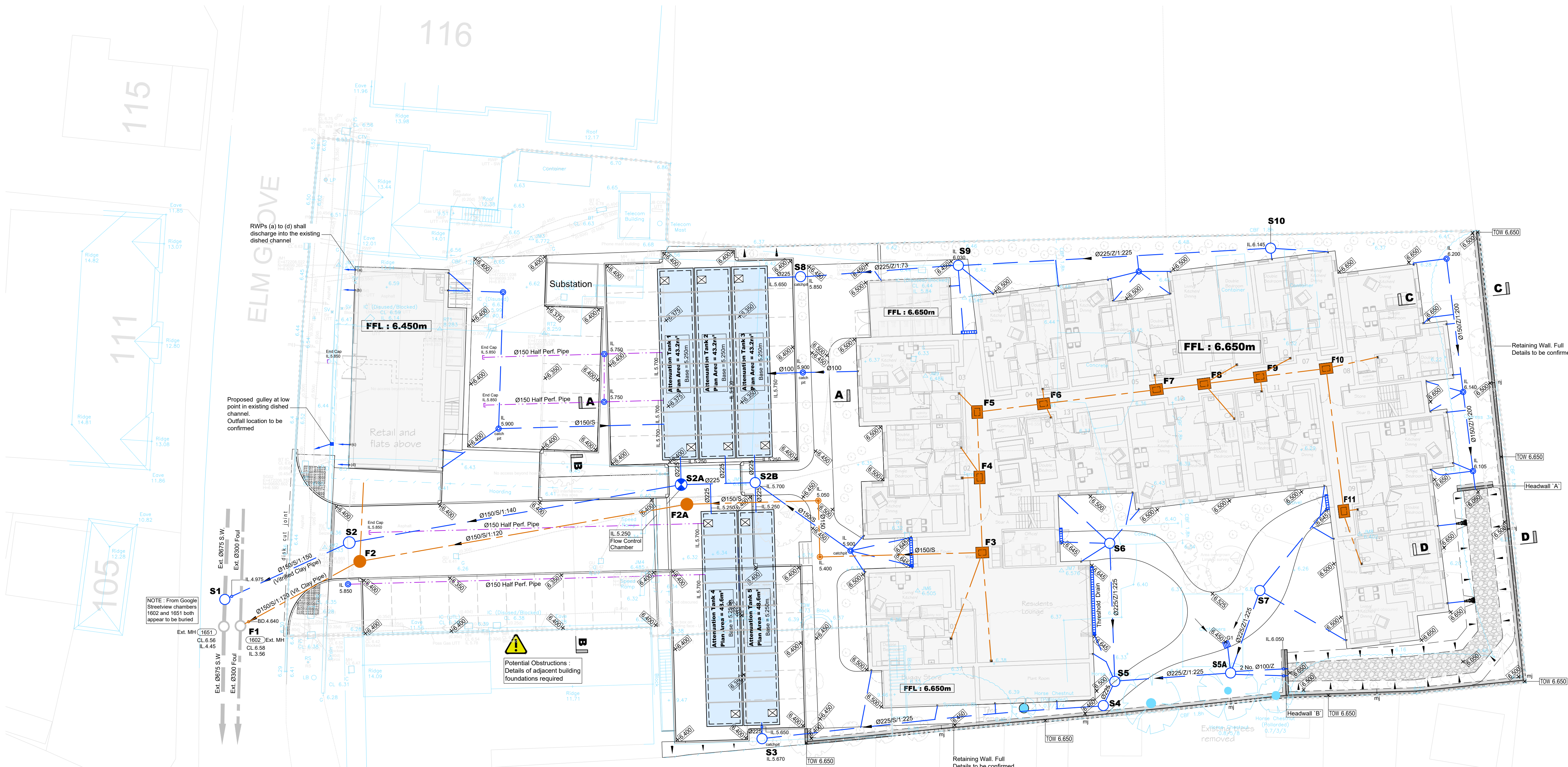
REV	DESCRIPTION	CHECKED	DATE
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Archibald Shaw
Consulting Civil & Structural Engineers
One Little London, Chichester, West Sussex PO19 1PP
Telephone: 01243 786471 www.archibaldshaw.co.uk

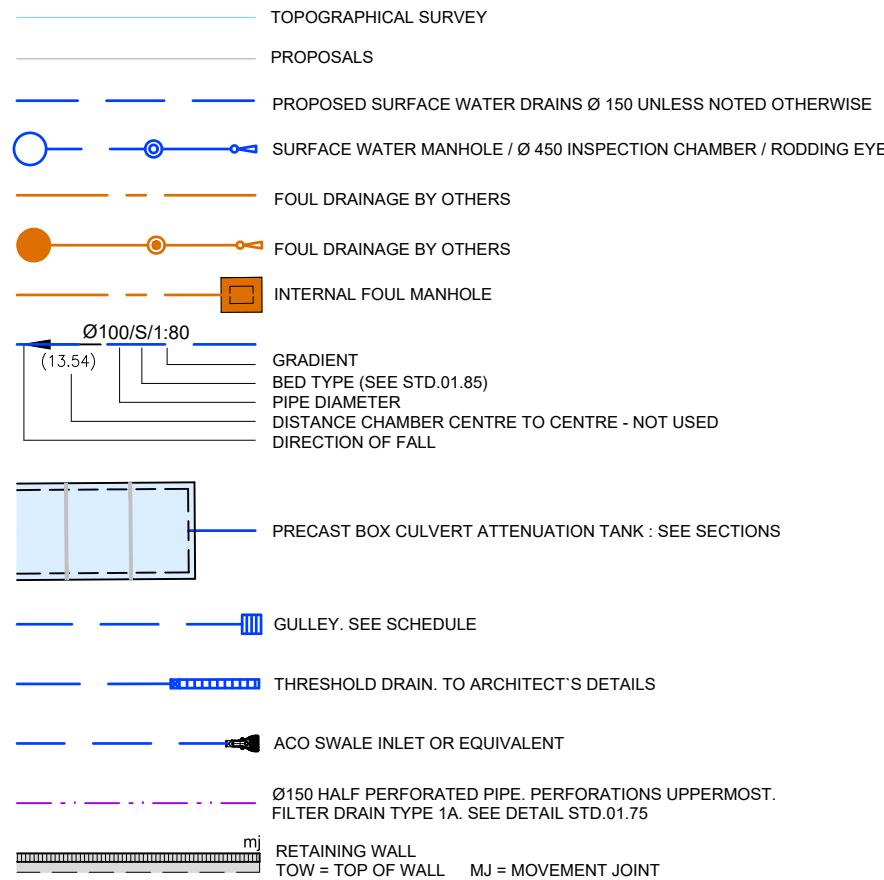
CLIENT
Hamlet Homes

PROJECT
Elm Grove
Haying Island
Drainage General Arrangement

DRAWN BY	CHECKED BY	DESIGNED BY
PF	VC	VC/PF
SCALE @ A1	DATE	STATUS
1:200	May, 2020	Planning
JOB NO.	DRAWING NO.	REVISION
30666	EX.01	P8



KEY



SURFACE WATER MANHOLE / CATCHPIT SCHEDULE

M.H. REF.	INVERT LEVEL, LOWEST PIPE	COVER LEVEL	CHAMBER SIZE INTERNAL DIMS	COVER SIZE CLEAR OPENING	COVER TYPE	M.H. TYPE	COMMENT / DRG.
S1	4.450	6.580	Ø1500	750 x 675	D400	-	STD 01.22
S2	5.050	6.400	750 x 675	750 x 600	D400	P2	STD 01.22
S2A	5.250	6.400	Ø600 Flowloc	750 x 750	D400*	Manley Flowloc Chamber. See Detail Drawing	STD 01.22
S2B	5.250	6.400	750 x 675	750 x 600	D400	P2	STD 01.22
S3	5.670	6.400	900 x 675	600 x 600	B125	C2A	STD 01.50 (Catchpit)
S4	5.800	6.500	750 x 675	750 x 600	B125	P2	STD 01.22
S5	5.810	6.500	750 x 675	750 x 600	B125	P2	STD 01.22
SSA	5.855	6.500	750 x 675	750 x 600	B125	P2	STD 01.22
S6	5.860	6.600	750 x 675	750 x 600	B125	P2	STD 01.22
S7	5.890	6.550	750 x 675	750 x 600	B125	P2	STD 01.22
S8	5.850	6.450	900 x 675	600 x 600	B125	C2A	STD 01.50 (Catchpit)
S9	6.030	6.500	750 x 675	750 x 600	B125	P2	STD 01.22
S10	6.145	6.500	750 x 675	750 x 600	B125	P2	STD 01.22

* = Vented Cover by Manhole Covers Limited or equivalent (Contact : sales@manholecovers.co.uk)

FOUL MANHOLE SCHEDULE

M.H. REF.	INVERT LEVEL, LOWEST PIPE	COVER LEVEL	CHAMBER SIZE INTERNAL DIMS	COVER SIZE CLEAR OPENING	COVER TYPE	M.H. TYPE	COMMENT / DRG.
F1	4.3.260 (6.02.640)	6.580	Existing	Existing	-	-	New Backdrop Connection
F2	4.750	6.400	Ø1050	750 x 675	D400	P3	STD 01.23
F2A	4.960	6.400	Ø1050	750 x 675	D400	P3	STD 01.23
F3 to F11	Varies	-	Internal Chambers	Details to be confirmed	-	-	-

GULLY SCHEDULE

REF.	CHAMBER	GRATING	MIN. CLEAR WATERWAY	COMMENT / DRG.
G1	Drg. STD.01.10 (Type 2 Brick)	Stanton PAM Waterflow Pedestrian Grate Ref. HP993.1	787cm ²	Grade C250 Grate

OUTSTANDING DESIGN ISSUES:

- Precise RWP locations
- Precise foul outlet locations
- On highway works agreement
- S106 sewer connection agreements
- Foundation details