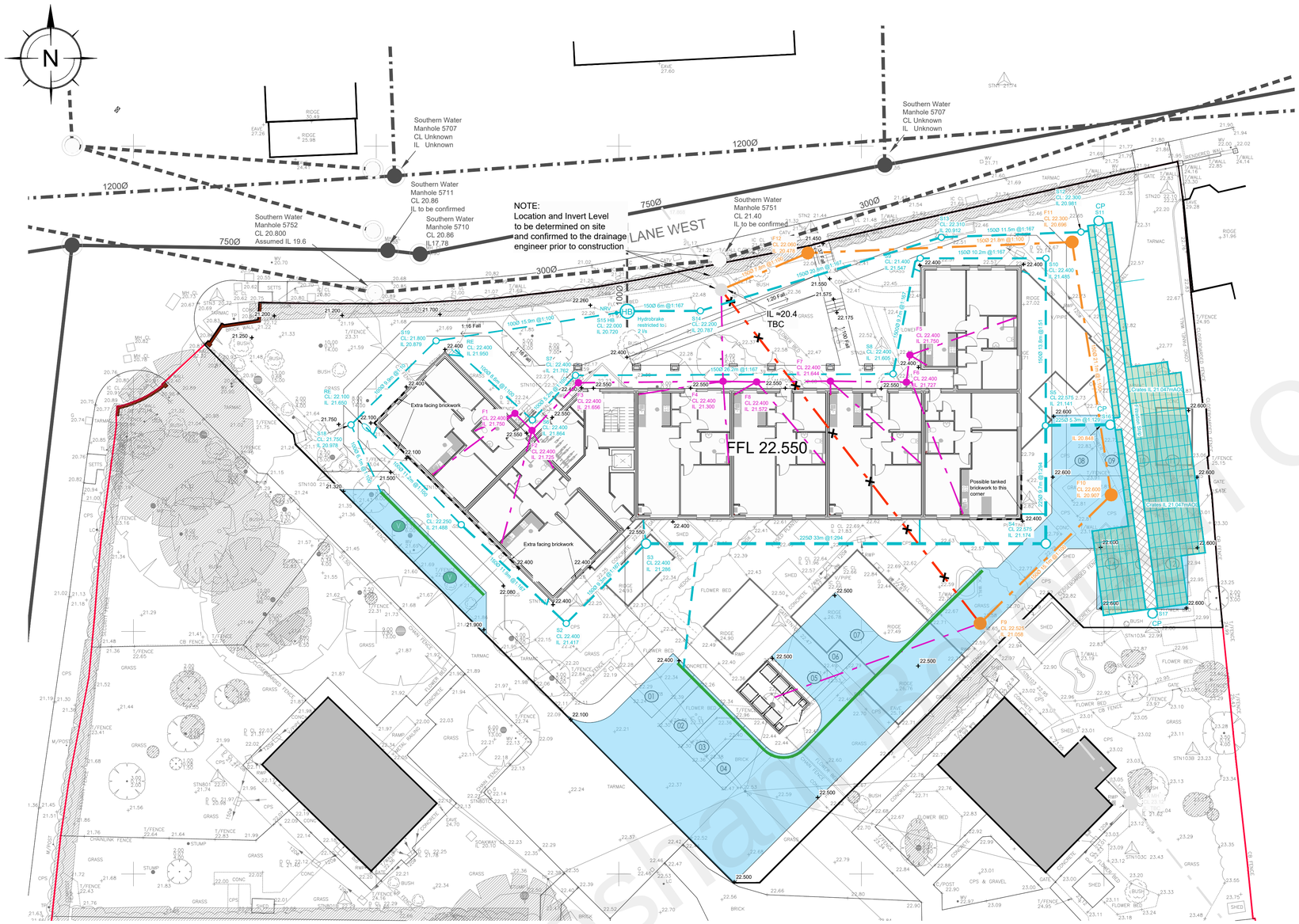


Gravesham BC

Legend:

- Existing Foul Water Sewer
- Existing Storm Water Sewer
- Existing Combined Sewer
- Existing Foul Water Sewer to be abandoned
- Proposed Foul Water Drainage
- Foul lateral drain to be adopted by Southern water subject to section 106
- Proposed Storm Water Drainage
- CP — Catchpit 500mm sump
- HB NRV — Hydrobrake @ 2l/s with non-return valve on inlet
- RE — Rodding Eye
- Fin Drain 100mmØ fully perforated pipe
- Permeable Surface — Area of 4/20 voided subbase with impermeable membrane. For conveyance and treatment
- Storage Crates. 800mm deep in 2No 400mm layers 95% voids. 123.5m² (494No crates) providing 93.86m³ of storage plus 32m long trench with 30% voids providing 8.45m³ of storage plus 1.27m³ within the perforated pipe. Providing 130.58m³ total storage.

STORM WATER MANHOLE SCHEDULE

MANHOLE REFERENCE	COVER LEVEL	INVERT LEVEL	DEPTH TO INVERT	DIAMETER / SIZE	COVER TYPE	MANHOLE TYPE
S1	22.250	21.488	0.762	450mmØ	A15	FIG B_18 Type D
S2	22.400	21.417	0.983	450mmØ	A15	FIG B_18 Type D
S3	22.400	21.286	1.114	600mmØ	A15	Wavin Range 600
S4	22.575	21.174	1.401	600mmØ	D400	Wavin Range 600
S5	22.575	21.141	1.434	600mmØ	A15	Wavin Range 600
S6	22.400	21.864	0.536	450mmØ	A15	FIG B_18 Type D
S7	22.400	21.762	0.638	450mmØ	A15	FIG B_18 Type D
S8	22.400	21.605	0.795	450mmØ	A15	FIG B_18 Type D
S9	22.400	21.547	0.853	450mmØ	A15	FIG B_18 Type D
S10	22.400	21.485	0.915	450mmØ	A15	FIG B_18 Type D
S11	22.600	21.097	1.503	450mmØ	A15	Wavin Range 600
S12	22.300	20.981	1.319	450mmØ	A15	FIG B_18 Type D
S13	22.310	20.912	1.398	450mmØ	A15	FIG B_18 Type D
S14	22.200	20.787	1.413	450mmØ	A15	FIG B_18 Type D
S15 HB	22.000	20.720	1.280	1200mmØ	A15	Hydrobrake
S16	22.600	21.097	1.503	600mmØ	D400	Wavin Range 600
S17	22.600	21.097	1.503	600mmØ	A15	Wavin Range 600
S18	21.750	20.978	0.772	450mmØ	A15	FIG B_18 Type D
S19	21.800	20.879	0.921	450mmØ	A15	FIG B_18 Type D

FOUL WATER MANHOLE SCHEDULE

MANHOLE REFERENCE	COVER LEVEL	INVERT LEVEL	DEPTH TO INVERT	DIAMETER / SIZE	COVER TYPE	MANHOLE TYPE
F1	22.400	21.750	0.650	450mmØ	A15	FIG B_18 Type D
F2	22.400	21.725	0.675	450mmØ	A15	FIG B_18 Type D
F3	22.400	21.656	0.744	450mmØ	A15	FIG B_18 Type D
F4	22.400	21.300	1.100	450mmØ	A15	FIG B_18 Type D
F5	22.400	21.750	0.650	450mmØ	A15	FIG B_18 Type D
F6	22.400	21.727	0.673	450mmØ	A15	FIG B_18 Type D
F7	22.400	21.644	0.756	450mmØ	A15	FIG B_18 Type D
F8	22.400	21.572	0.828	450mmØ	A15	FIG B_18 Type D
F9	22.525	21.058	1.467	1200mmØ	A15	FIG B_09 Type B
F10	22.600	20.907	1.693	1200mmØ	A15	FIG B_09 Type B
F11	22.300	20.696	1.604	1200mmØ	A15	FIG B_09 Type B
F12	22.060	20.478	1.582	1200mmØ	A15	FIG B_09 Type B

-2m 0 2m 4m 6m 8m

Scale 1:200

NOTES:

1. All dimensions to be checked on site. All details and dimensions relating to sub-Contractors work must be checked and agreed between the sub-Contractor or supplier and the general Contractor.

2. This drawing is to be read in conjunction with all relevant Architect's and Engineer's drawings and specification.

3. The main Contractor is responsible for ensuring the stability of the structure whilst the works are in progress.

4. Any information given regarding existing underground services is given in good faith after consultation with the relevant authority. No liability is accepted by the Consultant and the main Contractor is responsible for obtaining and checking all information and taking due care and attention whilst undertaking the works.

5. All pipes, bends and junctions shall be vitrified clay to BS EN 295-1, with flexible joints and kitemark certified. Alternatively all pipes and fittings can be UPVC conforming to BS EN 1401-1 and shall be laid in accordance with the manufacturers specification. If UPVC pipes are to be used then the manufacturer shall be approved by the Engineer prior to construction.

6. All Adoptable sewers shall be in strict accordance with the current edition of Sewers For Adoption. Unless otherwise stated adoptable sewers shall be 150mm diameter and shall be laid in a class S bedding. Where the depth to soffit is less than 1.2m under a public highway or 0.9m elsewhere the pipe shall be laid with a class Z bedding.

7. All private building drainage shall be constructed in strict accordance with BS EN 752:1996. Unless otherwise specified building drainage shall be 100mm diameter and shall be laid at a minimum gradient of 1 in 40 for foul drains and 1 in 80 for surface water drains. All building drains shall be laid in class B bedding unless otherwise specified.

8. Where the service trench is near to the foundation of any building, refer to the guidance in Approved Document H, Building Regulations Part H1.

9. Where pipes, external to the structures, have a depth to soffit from ground level of less than 450mm they shall have a class GEN 3 concrete encasement (150mm thick). In all other cases the pipes shall be bedded and surrounded with 100mm thick granular material.

10. In any circumstances where pipes are bedded and surrounded in concrete flexible joints should be provided. Compressible boards (fibreboard or polystyrene) shall be provided at a maximum of 8m centres (coinciding with pipe joints). The boards shall be pre-cut to pipe diameter and to a height and width equal to the concrete cross section. A board thickness of 18mm for pipes up to 450mm nominal diameter and 36mm for pipes over 450mm nominal diameter.

11. All svps shall have rodding access plates fitted at their bases (ground floor level).

12. Where existing pipes are to be abandoned they shall be dug out together with any abandoned manholes.

EXISTING SERVICES

1. Information compiled from services plans received and reproduced in good faith. Specific locations to be confirmed on site prior to construction.

REV.	DATE	INT	DESCRIPTION	CHK
G	15.06.22	MJP	Crates layout updated	SRM
F	25.05.22	MJP	S04 & S50 Invert levels updated on plan	SRM
E	19.05.22	MJP	Updated stormwater drainage layout	SRM
D	13.04.22	MJP	Updated storm outfall	SRM
C	12.01.22	MJP	Updated site layout	SRM
B	11.01.22	MJP	Drawing updated to suit IL received	SRM
A	23.11.21	MJP	Drawing updated to client comments	SRM

Issue Status FOR TENDER

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CLIENT: Stonechart Developments ltd

PROJECT: Elizabeth Huggins Cotages, Gravesend

TITLE: Proposed Levels and Drainage Layout Plan

DRAWN	DATE	PROJECT NO.
M Pacifico	Sept 2021	23504
ENGINEER	CHECKED	ORG. No. 201 REV. G
S Doughty		
SCALE: 1:200 @ A1		