

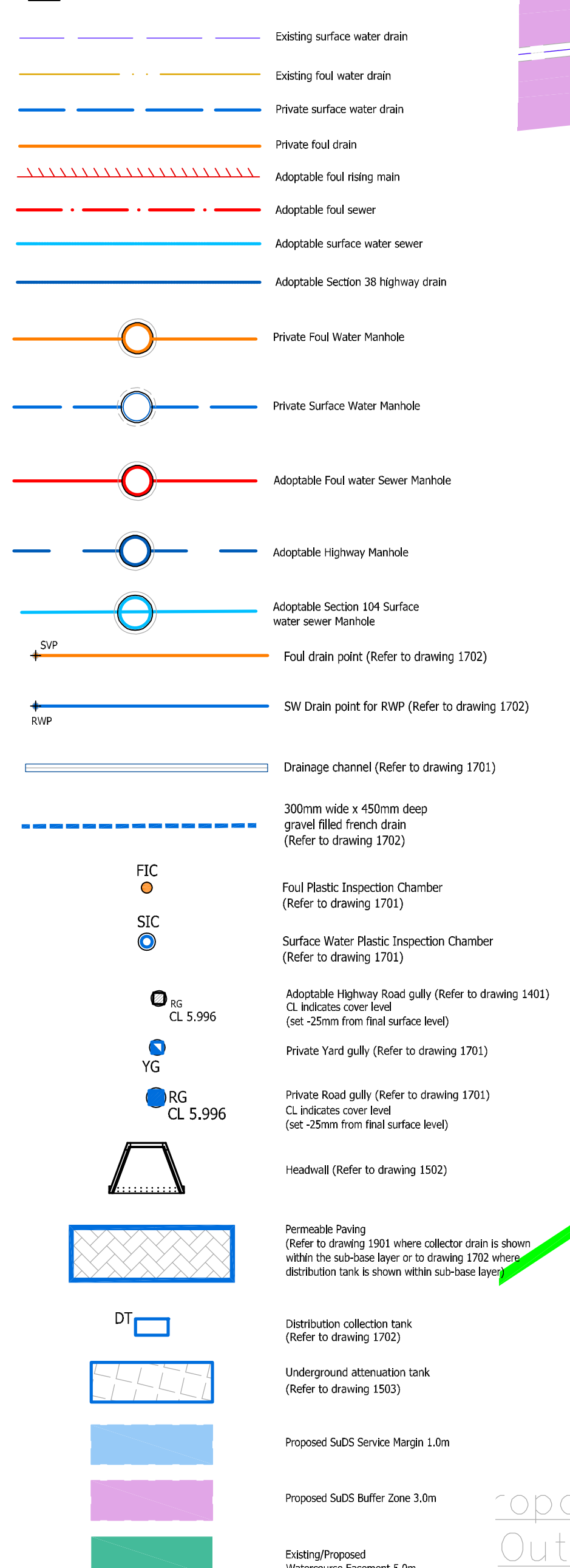
GENERAL NOTES

- The location, size, depth and identification of existing services that may be shown or referred to on this drawing have been assessed from non-intrusive observations. Record drawings or the like. The contractor shall only carry out intrusive investigations, trial holes or soundings prior to commencing work to satisfy himself that it is safe to proceed and that the assumptions are accurate. Any discrepancies shall be notified to gta prior to works commencing.
- Prior to commencement of works the contractor shall provide co-ordinated and dimensioned installation drawings and calculations and allow 10 working days for gta's checking procedure prior to proceeding with these works or the ordering of materials.
- Tender or billing drawings shall not be used for construction or the ordering of materials.
- Do not scale. All dimensions and levels to be site confirmed.
- This drawing shall be read in conjunction with all relevant architects, consultants drawings and specifications, together with H&S plan requirements.
- Copyright: This drawing must not be copied, amended nor reproduced without the prior written agreement of gta.
- All drawings, specifications and recommendations made by gta are subject to Local Authority and other relevant Statutory Authorities approval. Any works or services made abortive due to the client proceeding prior to these approvals is considered wholly at the Client's risk. gta hold no responsibility for resulting abortive works or costs.

SPECIFICATION NOTES

- ALL DRAINAGE SHALL BE CONSTRUCTED AND COMMISSIONED IN ACCORDANCE WITH BS EN 758 & BS EN752, BUILDING REGULATIONS DOC. H AND ANY PARTICULAR REQUIREMENTS OF THE BUILDING CONTROL OFFICE.
- DRAIN BEDDING IS TO BE PROVIDED AS D200, D300, D400 AND D500 AS SHOWN ON THE DRAINAGE DETAIL SHEETS.
- EFFECTIVE COVER IS THE MINIMUM DEPTH OF COVER OVER THE PIPE CROWN AT ANY TIME DURING THE CONSTRUCTION PERIOD.
- ALL DRAINS MARKED 'TWO OR TWO' ARE PROPOSED ADOPTED SEWERS. ALL ADOPTABLE ELEMENTS OF THE WORKS TO BE CONSTRUCTED AS DETAILED IN THE SECTOR GUIDANCE IN RELATION TO THE ADOPTION OF SEWERAGE ASSETS BY SEWERAGE COMPANIES IN ENGLAND AS ENABLED BY WATER UK'S CODE FOR ADOPTIONS. SECTIONS OF DRAINAGE TO BE ADOPTED UNDER THE TERMS OF A SECTION 106 AGREEMENT. ALL ADOPTABLE PIPEWORK TO BE CONSTRUCTED FROM VITRIFIED CLAY TO BS EN 252 UP TO 225mm PIPE) OR CONCRETE TO BS EN 1916 AND BS EN 591 (300mm PIPE AND ABOVE).
- ALL CONCRETE PIPEWORK, MANHOLES AND FITTINGS SHALL BE TO BS EN 1916 & BS EN 591 (ALL RELEVANT PARTS). ALL CONCRETE PIPEWORK TO BE TO HIGH STRENGTH.
- WHERE CONNECTIONS ARE TO BE MADE TO EXISTING MANHOLES/SEWERS, INVERT LEVELS, PIPE SIZES & ORIENTATION SHALL BE CHECKED PRIOR TO THE COMMENCEMENT OF THE WORKS AND ANY VARIANCE REPORTED TO THE ENGINEER IMMEDIATELY. WORK TO COMMENCE AT DOWNSTREAM END WHEREVER POSSIBLE.
- WHERE PIPELINES CROSS, EACH IS TO BE SUBORDINATED WITH GRADE ST4 MASS CONCRETE FOR A DISTANCE NOT LESS THAN 1m CENTRED ON THE CROSSING POINT. LENGTH OF SUBORDINATE TO BE EXTENDED AS NECESSARY TO WITHIN 150mm OF THE NEXT NEAREST FLEXIBLE JOINTS.
- THE CONTRACTOR IS TO ENSURE THAT PROTECTIVE MEASURES ARE TAKEN TO ENSURE THAT DRAINAGE PIPEWORK AND FITTINGS ARE NOT DAMAGED BY SITE TRAFFIC PRIOR TO COMMENCEMENT OF WORKS. PROTECTIVE MEASURES TO BE TAKEN PRIOR TO COMMENCEMENT OF WORKS. PROTECTIVE MEASURES TO BE TAKEN PRIOR TO COMMENCEMENT OF WORKS.
- ALL PRIVATE DRAINAGE PIPEWORK SHALL BE UNFLEXIBLE PVC TO BS EN 1401. ALL UNDERBUILDING DRAINAGE TO BE Laid AT A GRADE OF 1:40 WITH A MINIMUM REST BED LEVEL OF 375mm BELOW THE PROPOSED FINISHED FLOOR LEVEL. CONNECTIONS INTO PIPE RUNS BENEATH BUILDINGS WILL NOT BE PERMITTED WITH THE EXCEPTION OF WASH HAND BASINS, BATHS OR SHOWERS STRICTLY IN ACCORDANCE WITH H&S TECHNICAL GUIDANCE 'Y' JUNCTIONS IN DRAINS UNDER BUILDINGS.
- WHERE DRAINAGE PASSES THROUGH FOUNDATIONS OR CONNECT TO MANHOLES, FLEXIBLE PIPE JOINTS ARE TO PROVIDED WITHIN 150mm OF THE FACE OF THE STRUCTURE AND WITHIN A FURTHER 600mm TO FORM A ROCKER PIPE.
- WHERE PIPES PASS THROUGH SCREEN WALLS, FOOTINGS OR RETAINING WALLS, UNITS ARE TO BE PROVIDED.
- WHERE PIPELINES PASS WITHIN 2m OF BUILDINGS OR WALLS THE FOUNDATIONS ARE TO BE TAKEN DOWN BELOW THE BOTTOM OF THE TRENCH.
- 450mm DIA. INSPECTION CHAMBERS (FIC/SIC) MAY BE USED:
- WITH 350mm REDUCED OPENINGS WHERE THE DEPTH FROM COVER TO INVERT EXCEEDS 1000mm.
300mm DIA. POLYPROPYLENE ACCESS CHAMBERS (FAC/SAC) MAY BE USED:
- WHERE THE DEPTH FROM COVER TO INVERT DOES NOT EXCEED 600mm AND WHERE THE PIPE SIZE DOES NOT EXCEED 100mm DIA.
- STEEL COVERS WITHIN PROPERTY BOUNDARIES SHALL BE:
(UNLESS NOTED ON DRAWING OR MANHOLE SCHEDULE)
- ON PRIVATE DRIVEWAYS, FACTA GRADE B (BS EN 124:1999)
- ON PRIVATE PATHWAYS, VERGES OR ON GARDENS: FACTA GRADE A (BS EN ISO 1412:1999)
DUCTILE IRON COVERS OUTSIDE PROPERTY BOUNDARIES SHALL BE:
(UNLESS NOTED ON DRAWING OR MANHOLE SCHEDULE)
- ON ACCESS ROADS AND CAR PARKS: GRADE D400 (BS EN 124:1999)
- ON SHARED PATHWAYS, VERGES: GRADE A15 (BS EN 124:1999)
- COVER LEVELS SHOWN 'CL' AND INVERT LEVELS SHOWN 'IL' ARE IN METRES ABOVE ORIGINATE DATUM.
- ALL DRAINS TO BE 100mm DIAMETER UNLESS NOTED OTHERWISE.
- SEWER JETTING FOR FUTURE MAINTENANCE SHOULD ACCORD WITH BS EN 14694:2014 AND THE SEWER JETTING CODE OF PRACTICE (PUBLISHED BY WPA). MANUFACTURERS OF THE DRAINAGE SYSTEM COMPONENTS SHOULD ALSO BE CONSULTED BUT UNDER NO CIRCUMSTANCES SHOULD THE FOLLOWING PRESSURES BE EXCEEDED:
PLASTIC PIPES - 2000 psi
CLAY PIPES - 3000 psi
CONCRETE PIPES - 5000 psi
- BELOW GROUND SURFACE WATER ATTENUATION TANK TO PROVIDE THE MINIMUM VOLUME SHOWN ON THE DRAINAGE LAYOUT. THE ARRANGEMENT IS BASED UPON THE USE OF TANK MANHOLE COVER / AQUACELL PLUS WITH A MINIMUM VOID RATIO OF 55%. TANK SHALL INCORPORATE FULL LENGTH ACCESS CHANNEL, TO ALLOW FOR CCTV INSPECTION AND JETTING. SHOULD THE CONTRACTOR PROPOSE A DIFFERENT TANK ARRANGEMENT, IT PRODUCT TO ACHIEVE THE STATED VOLUME. DETAILS SHOULD BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

KEY



ABBREVIATIONS

FD	Foul Drain
SWD	Surface Water Drain
PWS	ADOPTABLE Foul WATER SEWER
SWS	ADOPTABLE SURFACE WATER SEWER
HM	MANHOLE
FIC	INTERSECTION CHAMBER
SIC	450mm DIA. Foul INSPECTION CHAMBER
RG	ROAD GULLY
SG	SOIL VENT PIPE DROP
SWP	EXTERNAL WASHING POINT
DT	SURFACE WATER DISTRIBUTION TANK
FFL	FINISHED FLOOR LEVEL
CL	COVER LEVEL
IL	INVERT LEVEL
SL	SUMP LEVEL
BL	BASE LEVEL
BSL	BACKDROP INVERT LEVEL

DESIGN NOTES

- STORAGE DESIGN BASED ON 1 IN 100 YR STORM + 40%.
- DRAIN POINTS AND LOCATIONS TO BE CONFIRMED BY ARCHITECT.
- CONTRACTOR TO ESTABLISH LOCATIONS OF ALL EXISTING SERVICES PRIOR TO COMMENCING.
- EXISTING TREES TO BE PROTECTED WHERE EXCAVATIONS RUN CLOSE.
- THE PROPOSED CONNECTIONS INTO THE ADOPTED SEWER NETWORK AND THE DISCHARGE RATES WILL ALL BE SUBJECT TO APPROVAL AND INSPECTION BY SOUTHERN WATER UNDER THE TERMS OF A SECTION 106 AGREEMENT.
- ALL ADOPTABLE ELEMENTS OF THE WORKS TO BE CONSTRUCTED AS DETAILED IN THE SECTOR GUIDANCE IN RELATION TO THE ADOPTION OF SEWERAGE ASSETS BY SEWERAGE COMPANIES IN ENGLAND AS ENABLED BY WATER UK'S CODE FOR ADOPTIONS.
- THE PROPOSED DRAINAGE LAYOUT IS SUBJECT TO DRAINAGE SURVEY OUTCOME CONFIRMING PIPE SIZES AND INVERT LEVELS OF EXISTING MANHOLES FORMING FINAL OUTFALLS OF THE SITE'S PROPOSED DRAINAGE NETWORK. ANY VARIATIONS TO BE REPORTED TO THE ENGINEER PRIOR TO COMMENCING ANY WORKS ON SITE. WORK TO COMMENCE AT DOWNSTREAM END WHEREVER POSSIBLE.

NOTE - EXISTING WATERCOURSE TO BE DIVERTED AROUND DETENTION BASIN 5 AND CULVERTED UNDER PROPOSED ROAD, SUBJECT TO ORDINARY WATERCOURSE CONSENT. EXISTING SECTION DOWNSTREAM OF THE CULVERT TO BE CLEANED OUT TO THE SATISFACTION OF ADC ENGINEER.

Remove existing culvert and reinstate ditch

Contractor to ensure fence foundations span either side of 600mm diameter pipe

Proposed 3750 surface water connection laid at 1:2313 left capped for future development. 2300m² of impermeable area has been allowed to discharge free into surface water system.

Proposed 1500 foul water connection laid at 1:1510 left capped for future development. *Pumping Station design does not allow for future development to discharge into the downstream foul network.

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P11	Revised to LFLA comments. Basin 5 removed and replaced with Tank 1. Control flows revised.	05/01/23	SQL	MR
P10	Schedule and pumping station revised. Detention basin 4 removed. SW drainage amended from Headwall 11 to SWMH1.25. HWMH1.1 to SWMH1.25 & private sewer drainage for plots 9-15.	03.11.22	DT	MR
P9	SWMH1.25 discharge flow rate updated. Service margin, buffer zones and easement zones around SuDS, existing/proposed watercourses added.	19/10/22	DT	MR
P8	SWMH1.25 revised. Detention basin 5 removed & indicated. Attenuation tank size amended. Notes regarding existing ditch added. SWMH1.25 and SWMH1.23 changed to 1.0m internal dia catchpits. Changes in line with ADC Engineer.	03/08/22	DT	MR
P7	Private NA02 house types changed to NA21. Amended to suit JCSA Water comments.	17/06/22	DT	MR
P6	Rising main levels amended. Wash out valve manhole added.	20/05/22	DT	MR
P5	ADOPTABLE highway road gully/private road gully cover levels added. Engineering RB practices adjusted underneath ponds to suit updated buoyancy calculations.	19/04/22	DT	MR
P4	Draughting updated to suit client's comments dated 28/03/22.	28/03/22	DT	MR
P3	Draughting layout updated.	18/03/22	DT	MR
P2	Initial design.	24/02/22	DT	MR

Status	PRELIMINARY
Client	Taylor Wimpey
Architect	
Project	SEFTER ROAD BOGNOR REGIS
Title	SITE DRAINAGE LAYOUT SHEET 1 OF 7
Date	FEBRUARY 2022
Scale to A0	1:200
Clients Ref.	Project Ref.
10768	10768
Drawing Number	10768/1601
Rev.	P11