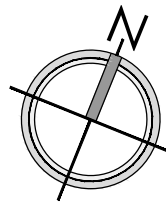


1. EXISTING SEWER LAYOUT TAKEN FROM TOPOGRAPHICAL AND/OR GPR SURVEY PROVIDED BY CLIENT. ALL SEWER, MH, PIPE SIZES, SIZES, LEVELS, AND MATERIALS TO BE IDENTIFIED BY SURVEYOR ON BY CONTRACTOR SITE, WITH ANY DISCREPANCIES IMMEDIATELY REPORTED TO THE ENGINEER (JUBB). THIS IS TO BE COMPLETED PRIOR TO THE COMMENCEMENT OF WORKS AND/OR ORDERING OF MATERIALS
2. ALL EXISTING MANHOLE INVERTS TO BE CHECKED AND REPORTED TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF DRAINAGE WORKS. EXISTING PIPE CONNECTIONS ARE TO BE CCTV SURVEYED AND REPORTED TO THE ENGINEER. THE ENGINEER WILL ADVISE IF PIPE CONNECTION IS FOUND TO BE DAMAGED, OR IN DISTRESS. THE CONTRACTOR IS TO CARRY OUT REMEDIAL WORKS OR PROVIDE A NEW CONNECTION TO THE EXISTING SEWER (PIPE SIZE AND GRADIENT TO BE DETERMINED BY THE ENGINEER
3. MH COVERING AND MANHOLE TO CONFORM TO BS EN 124
1.1. GROUP 4 - HIGHWAYS CLASS D400
1.2. GROUP 2 - CAR PARKING AREAS CLASS B125
1.3. GROUP 1 - SOFT LANDSCAPING & PRIVATE FOOTWAYS CLASS A15
4. PIPE WORK BEDDING, TYPE 1 BEDDING AND SURROUND TO ALL PIPES EXCEPT IN THE FOLLOWING CIRCUMSTANCES, IN WHICH TYPE 2 BEDDING AND SURROUND ARE TO BE USED:
4.1. IN REAR GARDENS OF HOUSES WHERE DEPTH TO CROWN OF PIPE IS LESS THAN 0.35m
4.2. IN AREAS OF THE REAR GARDEN OR PARKING WHERE DEPTH TO CROWN IS LESS THAN 0.9m
4.3. IN AREAS OF ROAD WHERE DEPTH IS LESS THAN 1.2m



- THE GRADIENTS INDICATED AGAINST THE DRAIN RUNS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL INSTALL DRAINS TO THE INVERT LEVELS SHOWN FOR EACH MANHOLE OR OTHER INDICED POSITION. ALL PIPES TO BE LAID WITH SLOTT TO SLOTT CONNECTIONS
6. PROPOSED PIPE WORK TO BE MANUFACTURED FROM CONCRETE AND BE KITE MARKED TO SHOW THE RELEVANT BRITISH STANDARD.
7. ALL ADOPTABLE DRAINAGE (150mm-600mm) TO BE TWIN WALL PIPEWORK IN ACCORDANCE WITH BS-EN 13476-1:2007 AND TO ACHIEVE THE HAFAS SPECIFICATION ISSUED BY THE CABE. ALL JOINTING IN ACCORDANCE WITH MANUFACTURERS TECHNICAL ADVICE & SPECIFICATION. ALL NON ADOPTABLE DRAINAGE TO BE THE STANDARD UPVC 110mm, 160mm DRAINAGE AND MANUFACTURED TO BS-EN 1401 AND BS 4660 UNLESS NOTED OTHERWISE
8. SOIL & VEGET PILE LOCATION AND NUMBER TO BE CONFIRMED WITH ARCHITECT
9. ALL RWPS TO BE FITTED WITH ROOFABLE GULLIES AT JUNCTURE WITH GRADU (REFER TO ARCHITECT'S SPECIFICATION)
10. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT ENGINEER'S & ARCHITECT'S DRAWINGS, TOGETHER WITH THEIR LATEST SPECIFICATIONS. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER (JUBB) AS SOON AS POSSIBLE
11. ONLY FIGURED DIMENSIONS ARE TO BE USED. ANY QUERIES OR DISCREPANCIES TO BE REFERRED TO THE ENGINEER (JUBB) IMMEDIATELY
12. FOUL WATER CONNECTIONS IN SOME INSTANCES ARE GREATER THAN THE 12M LENGTH RECOMMENDED WITHIN PART H OF THE BUILDING REGULATIONS. THIS WILL BE DISCUSSED WITH THE BUILDING CONTROL OFFICER AT DETAILED DESIGN STAGE AS A PREFERENCE TO BRINGING A FOUL SEWER UNDER THE BUILDING
13. ALL PROPOSED DRAINAGE TO BE INSTALLED TO SEWERS FOR ADOPTION 7th EDITION AND DCWW REQUIREMENTS
14. CONNECTIONS TO BE UNDERTAKEN SUBJECT TO THE PROVISION OF SECTION 106 OF THE WATER INDUSTRY ACT 1991 TO DCWW AND THE DEVELOPER SHALL GIVE 21DAYS NOTICE PRIOR TO CONNECTION AND THE WORKS MUST NOT BE UNDERTAKEN BY AN SSP ACCREDITED CONTRACTOR

15. ALL REMEDIATION WORKS TO SEWERS TO BE CONDUCTED BY AN INDUSTRY/SPECIALLY ACCREDITED CONTRACTOR, QUALIFIED TO WORK ON LIVE EFFLUENT

16. NEW SEWERS SHALL BE ABANDONED UNTIL THE CONTRACTOR HAS CONFIRMED THERE ARE NO LIVE CONNECTIONS REMAINING

17. NO CONSTRUCTION WORKS SHALL COMMENCE OVER OR WITHIN 6.0m of ANY SEWER THAT IS TO BE ABANDONED UNTIL THAT SEWER HAS BEEN FILLED AND SEALED AS SPECIFIED IN THE TABLE BELOW.

18. APPROVE THE SATISFACTION OF THE STATUTORY UNDERTAKER AND ENGINEER

19. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE COST OF REMOVING ANY GROUT THAT HAS ACCIDENTALLY OR OTHERWISE PENETRATED INTO SEWERS

20. ENDS OF SEWERS SHALL BE SEALED WITH 225mm THICK BRICKWORK WALLS WITH SUITABLE PIPE CONNECTIONS. FOR GROUT INJECTION; SACRIFICIAL STOPPERS MAY BE USED ON SMALL DIAMETER DRAINS

21. SEWERS REMAINS LESS THAN 1.0m DTI SHALL BE GRUBBED UP AND REMOVED

22. CEMENT GROUT FOR FILLING DRAINS WHICH ARE TO BE ABANDONED SHALL BE MIXED IN THE RELEVANT PROPORTIONS INDICATED IN THE FOLLOWING TABLE, USING THE MINIMUM QUANTITY OF WATER TO FILL THE DRAINAGE DUCT AND TO RENDER IT CAPABLE OF PENETRATING THE WORK

CLASS	NOMINAL MIX BY MASS		
	CEMENT	SAND	PFA
G3	1	10	--
G4	1	--	10

CEMENT GROUT SHALL BE USED WITHIN 1 HOUR OF MIXING. SULPHATE-RESISTING CEMENT SHALL NOT BE USED AS A CONSTITUENT OF GROUPS CONTAINING PFA. CEMENT GROUT FOR THE FIXING INSERTS AND BELOW PLANT BASES SHALL INCLUDE EITHER AN EXPANDING OR NON-SHRINK ADDITIVE

AS PER SEWERS FOR ADOPTION 7th ed. RELIABILITY *pt.*

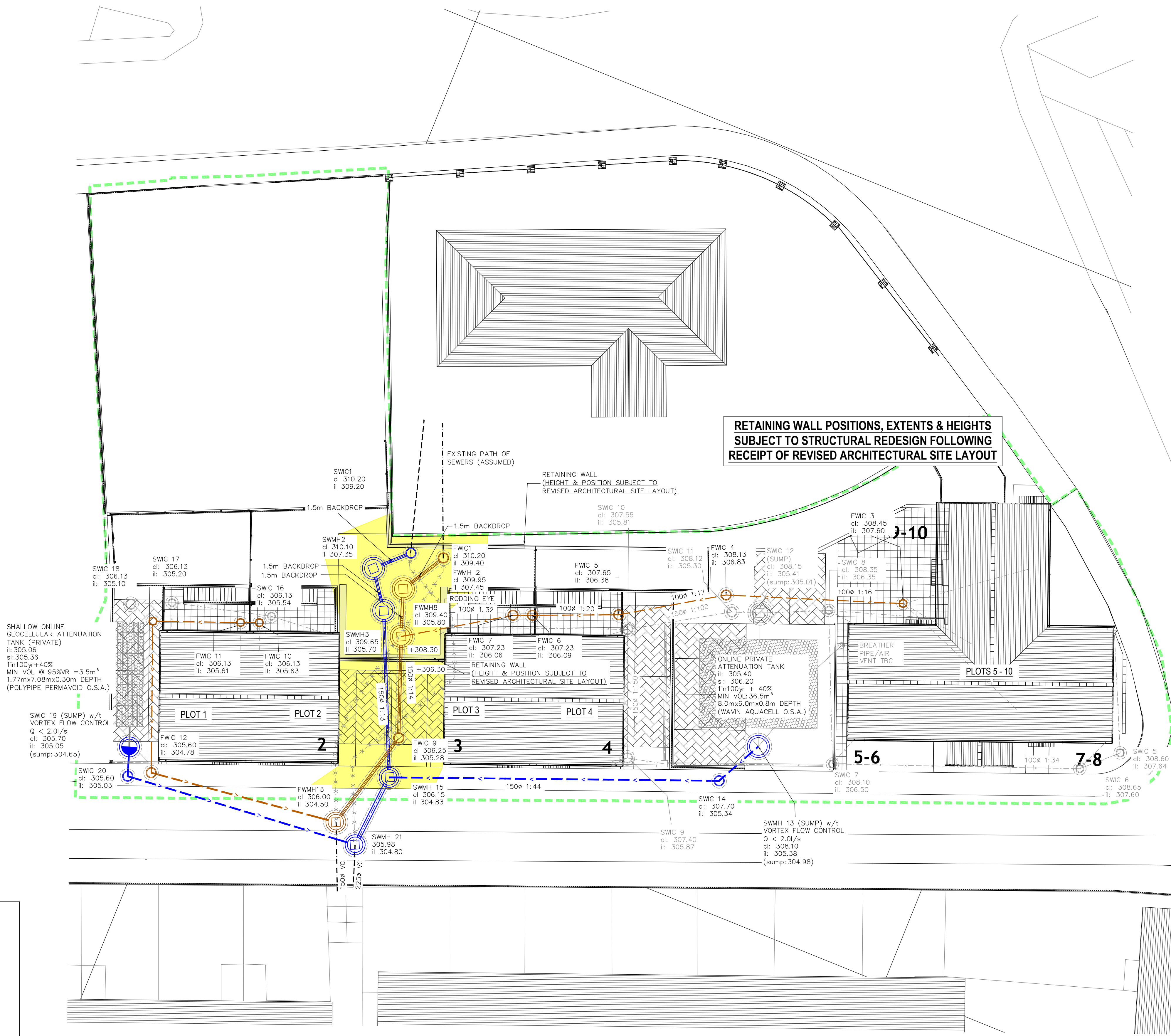
WHERE THE DESIGN FLOW IS LESS THAN 0.75m/s AT ONE THIRD DESIGN FLOW, THE SELF CLEANSING CRITERION WOULD BE CONSIDERED SATISFIED IF:

- a. A 150mm NOMINAL INTERNAL DIAMETER GRAVITY SEWER IS LAID TO A GRADIENT NOT FLATTER THAN 1:150 WHERE THERE ARE AT LEAST 10 NO. DWELLING UNITS CONNECTED; OR
- b. A SEWER OR LATERAL DRAIN WITH A NOMINAL INTERNAL DIAMETER OF 100mm (OR A LATERAL DRAIN SERVING 10 OR LESS PROPERTIES) IS LAID TO A GRADIENT NOT FLATTER THAN 1:80 WHERE THERE IS AT LEAST ONE WC CONNECTED AND 1:40 WHERE THERE IS NO WC CONNECTED.

	SITE BOUNDARY	 SUBJECT TO AGREEMENT WITH DCWW
	PROPOSED FOUL SEWER / LATERAL DRAIN (ADOPTED)	
	PROPOSED SW SEWER / LATERAL DRAIN (ADOPTED)	
	EXISTING DCWW ADOPTED FOUL SEWER	
	EXISTING DCWW ADOPTED SW SEWER	
	EXISTING FOUL SEWER TO BE ABANDONED	
	EXISTING SW SEWER TO BE ABANDONED	
	PROPOSED PRIVATE FOUL DRAIN	
	PROPOSED PRIVATE SW DRAIN	

-
- TYPE 1, 12000 PcC CHAMBER
- TYPE 2, 10500 PcC CHAMBER
- TYPE 3, 6000 uPVC/HOPE FLEXIBLE CHAMBER
- TYPE 4, uPVC/HOPE FLEXIBLE CHAMBER
- REFER TO MANHOLE SCHEDULE

S104 LAYOUT
(SCALE 1:150 @ A1)



T5	17/02/20	REVISED SITE PLAN	TDJ	GS
T4	29/10/19	REVISED SITE PLAN	TDJ	GS
T3	28/02/19	REVISED TO ARCHITECTS LAYOUT	TDJ	MT
T2	22/01/19	PLOTS 11-12 REMOVED	GH	TDJ
T1	30/10/18	FIRST ISSUE	TDJ	SJ

Rev	Date	Description	By	Apvd
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EAST STREET, DOWLAIS, MERTHYR TYDFIL

S104 DRAINAGE LAYOUT

MERTHYR HOUSING

SCALE@A1:
1:150

PROJECT REF:
18219

DRAWING No:
S104

Revision Referencing

P = Preliminary A = Approval T = Tender C = Construction

