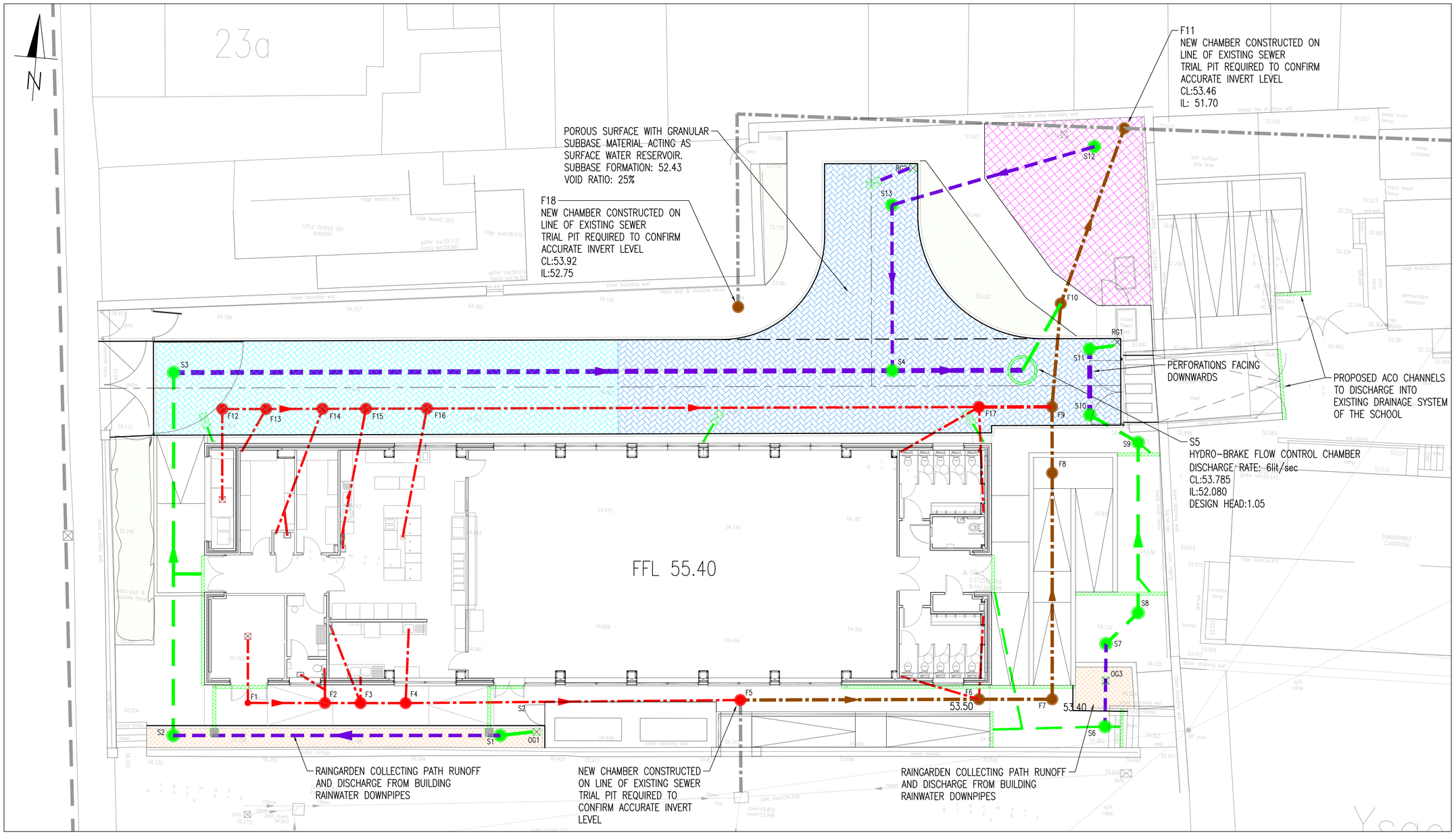


GENERAL NOTES

1. DO NOT SCALE THIS DRAWING.
2. CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ENGINEER.
3. ANY DISCREPANCY TO BE REPORTED IMMEDIATELY TO THE ENGINEER.
4. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, SUBCONTRACTORS AND SPECIALISTS DRAWINGS AND SPECIFICATIONS.

KEY

- PRIVATELY MAINTAINABLE FOUL DRAINAGE SYSTEM
- PROPOSED FOUL DIVERSION OF THE EXISTING DRAINAGE SYSTEM
- PRIVATELY MAINTAINABLE PERFORATED STORM DRAINAGE SYSTEM
- PRIVATELY MAINTAINABLE STORM DRAINAGE SYSTEM
- S104 ADOPTABLE STORM DRAINAGE SYSTEM
- EXISTING SEWER TO BE ABANDONED AND GRUBBED UP
- PROPOSED ACO THRESHOLD DRAIN CHANNEL
- POROUS SURFACING WITH A FLAT GRANULAR SUBBASE FORMATION
- POROUS SURFACING WITH 350mm DEEP SUBBASE
- PRIVATELY MAINTAINABLE RAINGARDEN
- POROUS SURFACE PLAY AREA
- PRIVATELY MAINTAINABLE DIFFUSER BOX
- FOUL GULLY AND CONNECTING PIPEWORK SERVING BIN STORE

DRAINAGE NOTES

1. THE DEVELOPER MUST SELF-VET AND CERTIFY THAT THE DESIGN CRITERIA, MATERIAL STANDARDS AND WORKMANSHIP SPECIFICATIONS FOR THE PROPOSED ADOPTABLE SEWERS ARE IN ACCORDANCE WITH THOSE SET OUT IN SEWERS FOR ADOPTION 7TH EDITION AND THE WELSH MINISTERS STANDARDS.
2. A SECTION 106 APPLICATION TO CONNECT MUST BE MADE TO DCWW, THE DEVELOPER SHALL GIVE 21 DAYS' NOTICE PRIOR TO CONNECTION, THE WORKS MAY ONLY BE UNDERTAKEN BY A SSIP ACCREDITED CONTRACTOR.
3. CONTRACTOR TO ALLOW FOR ALL NECESSARY STREET WORKS LICENSES ASSOCIATED WITH DRAINAGE SERVICE INSTALLATION IN EXISTING PUBLIC HIGHWAY.
4. ALL WORK TO BE CARRIED OUT IN CONNECTION WITH SEWERS AND MANHOLES TO BE IN ACCORDANCE WITH THE HEALTH AND SAFETY GUIDELINE NO. 2 'SAFE WORKING IN SEWERS AND SEWAGE WORKS'.
5. THE COVER AND INVERT LEVELS OF ANY EXISTING MANHOLES ARE TO BE VERIFIED ON SITE PRIOR TO THE COMMENCEMENT OF THE WORKS. ALSO TO INCLUDE VERIFICATION OF MANHOLE AND PIPE DIAMETERS.
6. ALL ADOPTABLE SEWERS OR LATERAL DRAINS ARE TO BE LAID AT A MINIMUM GRADIENT OF 1:80 FOR 100mmDIA PIPES, 1:150 FOR 150mmDIA PIPES AND A MAXIMUM GRADIENT OF 1:5. WHERE SITE LAYOUT DICTATES A RAMPED BACKDROP MAY BE UTILISED, ALTHOUGH STEEPER GRADIENTS ARE PREFERRED, AND SHOULD BE PROVIDED WHERE PRACTICABLE.
7. LATERAL PIPEWORK WITHIN 1.2m TO THE FACE OF PROPOSED BUILDING TO COMPLY WITH THE REQUIREMENT OF CLAUSE B3.1.4 AND FIGURE B.1
8. MINIMUM CLEAR OPENING OF MANHOLE COVERS TO BE 600 X 600MM FOR FOUL WATER AND 675 X 675MM FOR SURFACE WATER.
9. PRIOR TO LAYING ANY MATERIAL THE SUBGRADE MUST BE INSPECTED AND ANY SOFT SPOTS REMOVED AND FILLED WITH TYPE 1 MATERIAL TO SHW CLAUSE 803-14.
10. RAINWATER DOWNPIPES TO BE CONNECTED DIRECTLY TO THE DRAIN VIA A SUITABLE ADAPTOR, REMOVABLE TO PERMIT ACCESS FOR RODDING.
11. RWP TO BE CONFIRMED BY ARCHITECTS.
12. ANTICIPATED SVP LOCATIONS SHOWN, EXACT NUMBER AND LOCATION TO BE PROVIDED BY OTHERS.
13. ALL PERFORATED PIPE'S TO BE WRAPPED IN A PERMEABLE GEO-TEXTILE.

Rev.	Detail	By	Date
D	MINOR AMENDMENTS TO DRAINAGE LAYOUT FOLLOWING SAB COMMENTS.	DH	21.12.23
C	DRAWING REVISED TO SUIT NEW SITE LAYOUT.	AJ	24.10.23
B	DRAWING REVISED TO TENDER.	DF	18.10.23
A	REVISIONS MADE TO DRAINAGE STRATEGY S2 & S3.	DH	06.10.23

Revisions

Reinforcement schedules nos.

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Client

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County Borough Council Cyngor Bwrdeistref Sirol

Project

NEW KITCHEN BLOCK COEDFFRANC PRIMARY SCHOOL, STANLEY ROAD, SKEWEN, NEATH

Drawing Title

LAYOUT PLAN DRAINAGE

TENDER

Project No.	Drawing No.
C2112	C-002

Scales	Date	Revision
1:100 (UNLESS STATED)	31.08.23	D
Drawn: DH / Checked: DF	Sheet Size A1	

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DRAINAGE STRATEGY.

COMPLIANCE WITH STANDARDS

INFILTRATION TESTING WAS CARRIED OUT IN SA01 AT THE DEVELOPMENT SITE IN ACCORDANCE WITH BRE365 BY WYG, REPORT REFERENCE A111150-16. THE SOAKAWAY TEST UNDERTAKEN DID NOT ACHIEVE A VIABLE RESULTS DUE TO INSUFFICIENT FLOW TO CALCULATE AN INFILTRATION RATE.

S1

- REUSE – SURFACE WATER RUN-OFF TO BE COLLECTED WITHIN THE RAINGARDENS AND REUSED BY THE HYDRATION OF PLANTING.
- INFILTRATION – NOT VIABLE FOR THIS DEVELOPMENT.
- WATER BODY – NOT AVAILABLE FOR THIS DEVELOPMENT.
- SURFACE WATER SEWER – DUE TO INSUFFICIENT CAPACITY WITHIN THE HIGHWAY DRAIN AS CONFIRMED BY NPT, THIS CONNECTION IS NOT AVAILABLE FOR THIS DEVELOPMENT.
- COMBINED SEWER – IT IS PROPOSED TO UTILISE AN EXISTING ONSITE CONNECTION TO SERVE THE PROPOSED EXTENSION WHICH DISCHARGES INTO THE PUBLIC COMBINED SEWER.

S2

- FIRST 5mm WILL BE CATERED FOR IN THE INITIAL ABSORPTION OF THE PERMEABLE PAVING SUB-BASE & RAINGARDENS.
- SURFACE WATER SYSTEM TO BE DESIGNED TO FOR A RETURN PERIOD OF 100YRS + 30% CLIMATE CHANGE.
- POROUS SUBBASE TO BE UTILISED AS ATTENUATION PRIOR TO A FINAL DISCHARGE INTO ONSITE PRIVATE SYSTEM.
- THE EXISTING HARD PAVED AREA DISCHARGING INTO THE COMBINED SEWER IS 0.126Ha. POST DEVELOPMENT THE CONTRIBUTING HARD PAVED AREA IS REDUCED TO 0.117Ha PROVIDING A 7% BETTERMENT IN DISCHARGE VOLUME.
- AN ATTENUATED DISCHARGE RATE OF 6lit/sec IS PROPOSED FOR THE DEVELOPMENT DISCHARGING INTO THE EXISTING SYSTEM SERVING THE SCHOOL.
- THE TABLE BELOW PROVIDES THE PROPOSED DISCHARGE RESTRICTIONS AND SUBSEQUENT

BETTERMENT OVER EXISTING DISCHARGE RATES:

DISCHARGE RESTRICTIONS & BETTERMENT			
STORM EVENT	DISCHARGE RATE (LIT/SEC)	DISCHARGE RESTRICTION (LIT/SEC)	BETTERMENT (%)
1 IN 2 YEAR	8.8	6.0	30
1 IN 30 YEAR	16.3	6.0	63
1 IN 100 YEAR	21.4	6.0	72

S3

- WATER QUALITY WILL BE ACHIEVED VIA VARIOUS SUDS TECHNIQUES, SUCH AS PERMEABLE SURFACING & RAINGARDENS.

S4

- THE SUDS FEATURES MENTIONED ABOVE ARE AN IMPORTANT PART OF THE LANDSCAPE DESIGN. FULL LANDSPACING PROPOSALS WILL BE PROVIDED IN DUE COURSE.

S5

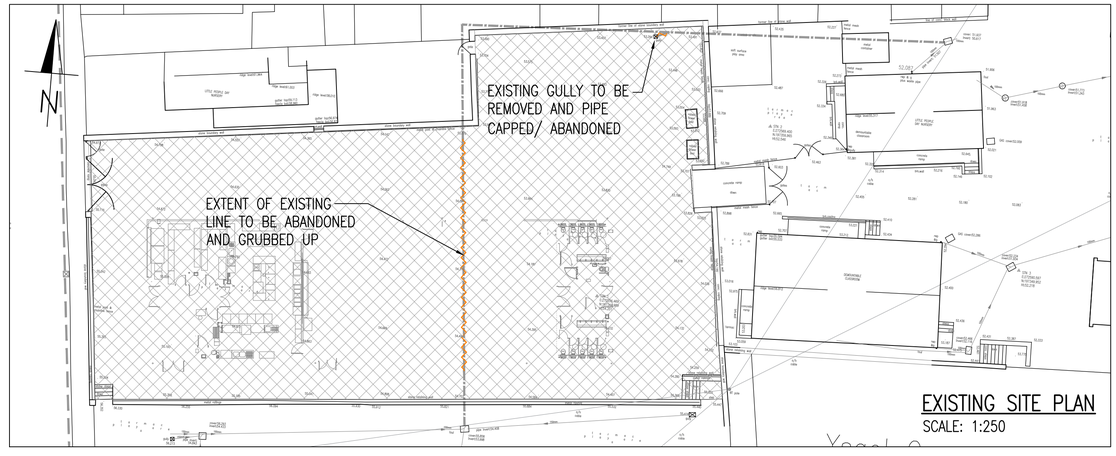
- THE RAINGARDENS WILL BE PLANTED WITH NATIVE PLANT SPECIES TO PROVIDE DENSE AND DURABLE COVER OF VEGETATION THAT CREATES APPROPRIATE HABITAT FOR INDIGENOUS SPECIES.
- BY REDUCING SURFACE WATER FLOWS WITHIN THE COMBINED SEWER, DOWNSTREAM BIODIVERSITY BETTERMENT IS ACHIEVED BY REDUCING SEWER OVERFLOWS.

S6

- NO FEATURES ARE TO BE OFFERED FOR ADOPTION.

FOUL DRAINAGE

- A GRAVITY SYSTEM SHOULD BE VIABLE FOR THE DEVELOPMENT SITE, REUSING THE EXISTING CONNECTION TO BE DIVERTED AROUND THE PROPOSED EXTENSION.
- CONNECTIONS IS SUBJECT TO 106 AGREEMENTS WITH DCWW.



EXISTING SITE PLAN
SCALE: 1:250