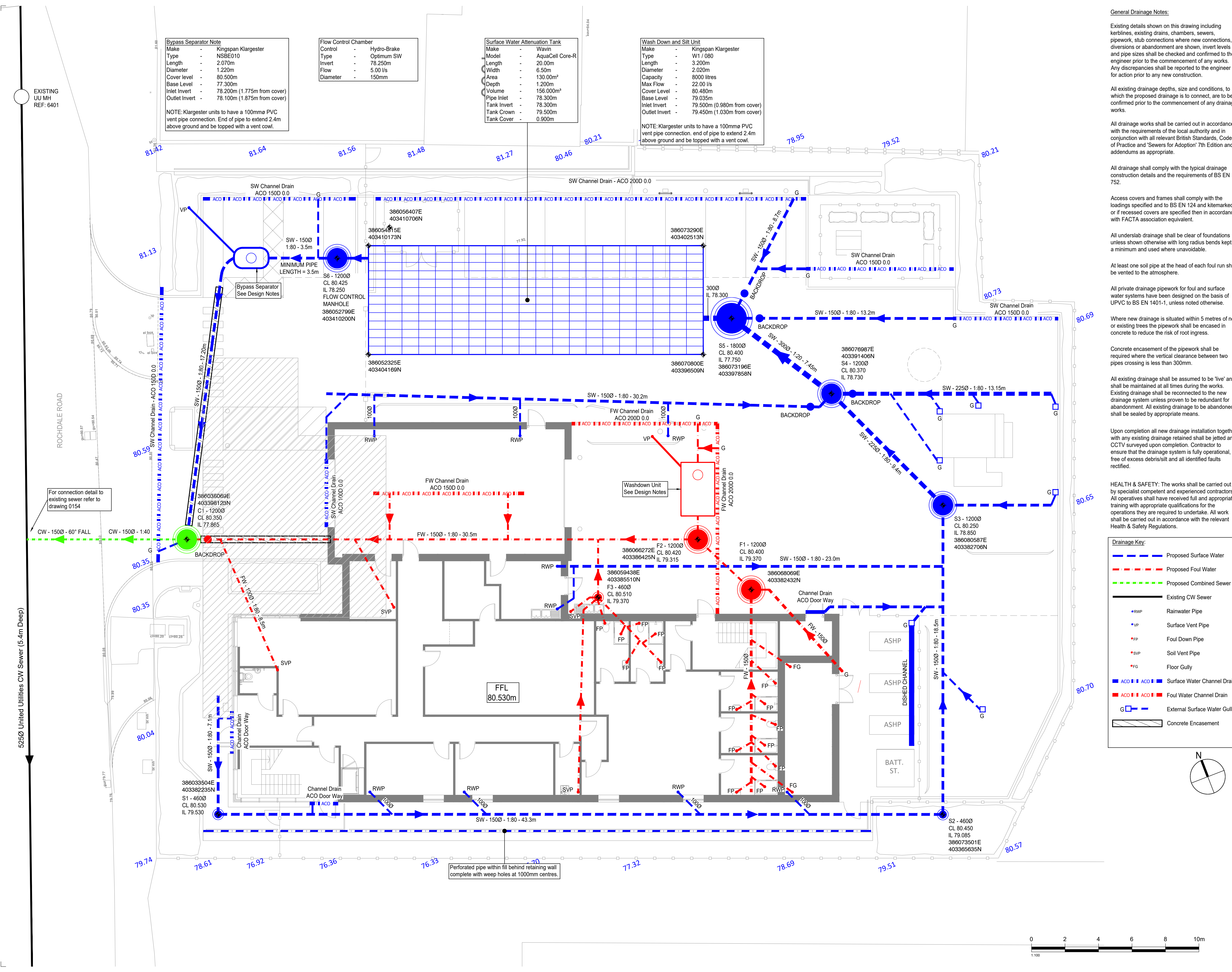




Bypass Separator Note
Make - Kingspan Klargest
Type - NSBE010
Length - 2.070m
Diameter - 1.220m
Cover level - 80.500m
Base Level - 77.300m
Inlet Invert - 78.200m (1.775m from cover)
Outlet Invert - 78.100m (1.875m from cover)

NOTE: Klargest units to have a 100mm PVC vent pipe connection. End of pipe to extend 2.4m above ground and be topped with a vent cowl.

Flow Control Chamber
Control - Hydro-Brake
Type - Optimum SW
Invert - 78.250m
Flow - 5.00 l/s
Diameter - 150mm

Surface Water Attenuation Tank
Make - Wavin
Model - AquaCell Core-R
Length - 20.00m
Width - 6.50m
Area - 130.00m²
Depth - 1.200m
Volume - 156.000m³
Pipe Inlet - 78.300m
Tank Invert - 78.300m
Tank Crown - 79.500m
Tank Cover - 0.900m

Wash Down and Silt Unit
Make - Kingspan Klargest
Type - W1 / 080
Length - 3.200m
Diameter - 2.020m
Capacity - 8000 litres
Max Flow - 22.00 l/s
Cover Level - 80.480m
Base Level - 79.035m
Inlet Invert - 79.500m (0.980m from cover)
Outlet Invert - 79.450m (1.030m from cover)

NOTE: Klargest units to have a 100mm PVC vent pipe connection, end of pipe to extend 2.4m above ground and be topped with a vent cowl.

General Drainage Notes:

Existing details shown on this drawing including kerblines, existing drains, chambers, sewers, pipework, stub connections where new connections, diversions or abandonment are shown, invert levels and pipe sizes shall be checked and confirmed to the engineer prior to the commencement of any works. Any discrepancies shall be reported to the engineer for action prior to any new construction.

All existing drainage depths, size and conditions, to which the proposed drainage is to connect, are to be confirmed prior to the commencement of any drainage works.

All drainage works shall be carried out in accordance with the requirements of the local authority and in conjunction with all relevant British Standards, Codes of Practice and 'Sewers for Adoption' 7th Edition and addendums as appropriate.

All drainage shall comply with the typical drainage construction details and the requirements of BS EN 752.

Access covers and frames shall comply with the loadings specified and to BS EN 124 and kitemarked or if recessed covers are specified then in accordance with FACTA association equivalent.

All underslab drainage shall be clear of foundations unless shown otherwise with long radius bends kept to a minimum and used where unavoidable.

At least one soil pipe at the head of each foul run shall be vented to the atmosphere.

All private drainage pipework for foul and surface water systems have been designed on the basis of UPVC to BS EN 1401-1, unless noted otherwise.

Where new drainage is situated within 5 metres of new or existing trees the pipework shall be encased in concrete to reduce the risk of root ingress.

Concrete encasement of the pipework shall be required where the vertical clearance between two pipes crossing is less than 300mm.

All existing drainage shall be assumed to be 'live' and shall be maintained at all times during the works. Existing drainage shall be reconnected to the new drainage system unless proven to be redundant for abandonment. All existing drainage to be abandoned shall be sealed by appropriate means.

Upon completion all new drainage installation together with any existing drainage retained shall be jetted and CCTV surveyed upon completion. Contractor to ensure that the drainage system is fully operational, free of excess debris/silt and all identified faults rectified.

HEALTH & SAFETY: The works shall be carried out by specialist competent and experienced contractors. All operatives shall have received full and appropriate training with appropriate qualifications for the operations they are required to undertake. All work shall be carried out in accordance with the relevant Health & Safety Regulations.

Drainage Key:

- Proposed Surface Water
- Proposed Foul Water
- Proposed Combined Sewer
- Existing CW Sewer
- RWP Rainwater Pipe
- VP Surface Vent Pipe
- FP Foul Down Pipe
- SVP Soil Vent Pipe
- FG Floor Gully
- Surface Water Channel Drain
- Foul Water Channel Drain
- External Surface Water Gully
- Concrete Encasement

status FINAL ISSUE

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The originator shall have no responsibility for any liability, loss, cost, damage or expense arising from or relating to any use of this document other than for its intended purpose on this project.

This drawing shall be read in conjunction with all other relevant drawings, specifications and associated documentation. Any discrepancies, errors or omissions are to be reported to the originator before proceeding with work.

All dimensions are to be checked on site by the contractor prior to proceeding with any work.

Hazard Identification		
ref	hazard	date

Site Specific Drainage Notes:

Infiltration tests at base of soakaway manhole required to confirm rates. Soakaway size, depth and attenuation tank size / volume subject to change once known.

Rainwater pipe and foul down pipe locations to be confirmed by Architect prior to the commencement of drainage works. Design subject to change once known.

Final external levels to be confirmed. Manhole and inspection cover levels subject to change once final external levels are known.

Existing combined network (to which the foul water is connecting / discharging) location, size and depth to be confirmed prior to the commencement of any drainage works. Design subject to change once known.

All foul water pipes to be 100Ø unless shown otherwise.

All surface water pipes to be 150Ø unless shown otherwise.

Foul water down pipes to have rest bend invert of 450mm below finished floor level, unless stated otherwise.

Rainwater pipe to have rest bend invert of 600mm below finished floor level unless stated otherwise.

Surface and foul water discharge to sewer subject to Section 106 agreement with United Utilities. No drainage work to commence until approval has been received.

All existing drainage found on-site to remain live unless proven to be redundant. Survey of existing drainage to establish network to be carried out prior to the commencement of work on site.

Drainage Specifications

Foul water pipes to be Polypipe to BS EN 1401-1 or similar.

Surface water pipes to be Polypipe Rigidrain or similar.

Manhole and soakaway manhole to be Precast Concrete by FP McCann or similar

Inspection chambers to be Polypipe or similar.

Channel and Threshold Drains by ACO or similar.

Attenuation tank to be WAVIN AquaCell Core-R or similar.

FINAL ISSUE - "AS CONSTRUCTED" DRAWINGS REPRESENT THE BUILDING AS DOCUMENTED AT THE TIME OF COMPLETION. THEY ARE PROVIDED FOR RECORD PURPOSES ONLY AND MAY NOT REFLECT SUBSEQUENT ALTERATIONS OR CONCEALED CONDITIONS. THE CONSULTANTS INSPECTIONS WERE LIMITED TO PERIODIC SITE OBSERVATIONS AND DID NOT CONSTITUTE EXHAUSTIVE VERIFICATION. NO LIABILITY IS ASSUMED FOR DISCREPANCIES, MODIFICATIONS OR RELIANCE BEYOND THEIR INTENDED REFERENCE USE

C7	FINAL ISSUE - AS CONSTRUCTED	HM	23.10.25
C6	GULLY LOCATION UPDATED	HM	14.08.25
C5	SITE PLAN & ACO LOCATION UPDATED	HM	17.06.26
C4	S7 REMOVED	HM	30.04.25
C3	S7, S8 AND BYPASS SEPARATOR ADJUSTED	JR	22.04.25
C2	INVERT LEVELS TO S5 AMENDED	MH	07.04.25
C1	CONSTRUCTION ISSUE	HM	04.03.25

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Bradshaw Gass & Hope LLP

client
ROBERTSON CONSTRUCTION LTD

project
BLACKLEY FIRE STATION

drawing
PLAN ON BELOW GROUND DRAINAGE LAYOUT

drawn by	MDS	date	MARCH 2025
checked by		date	
scale	1:100	A1	
dwg no	BFS-BGH-XX-XX-DR-C-0151	rev	C7