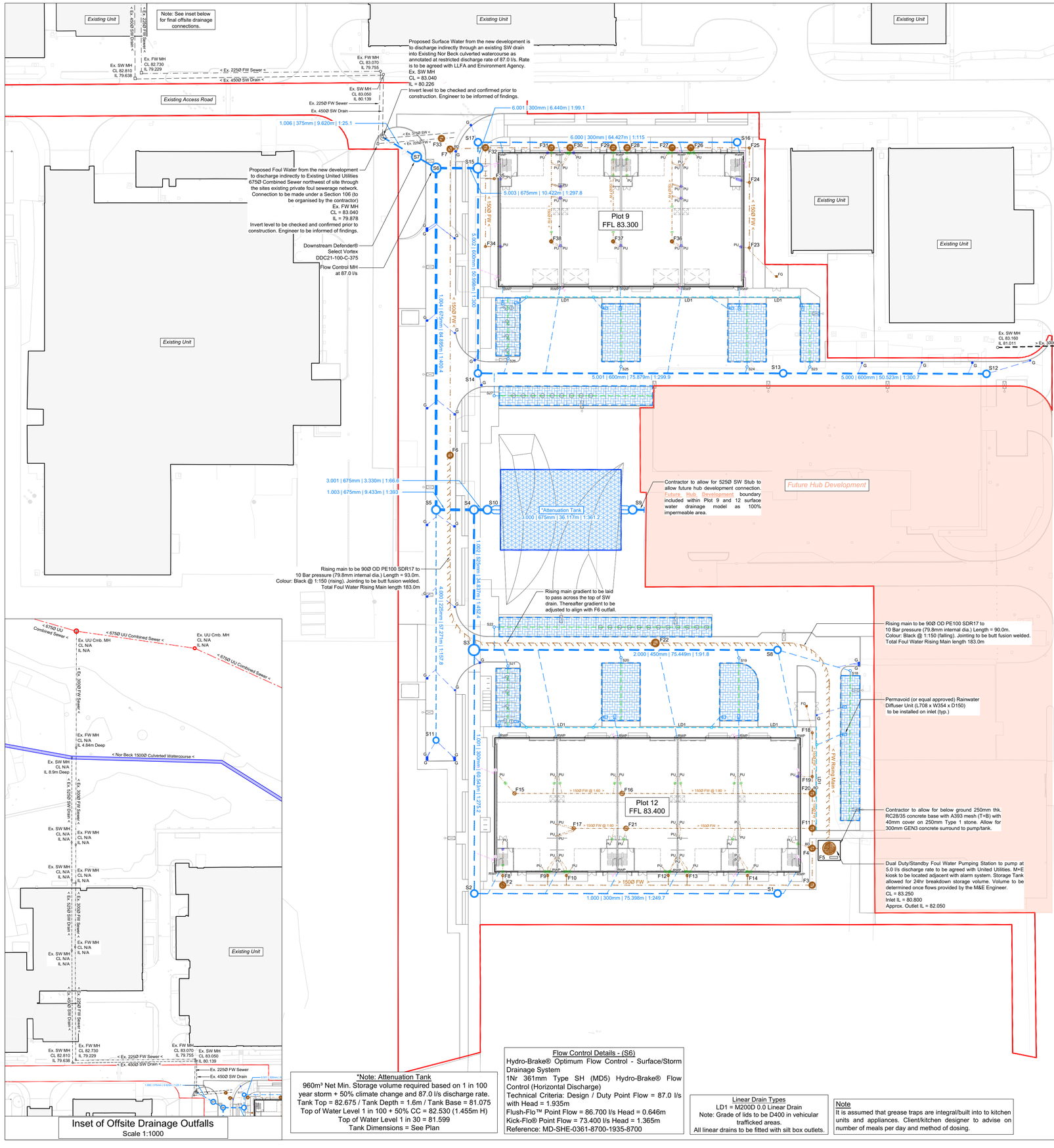

*Note: Attenuation Tank
960m³ Net Min. Storage volume required based on 1 in 100 year storm + 50% climate change and 87.0 l/s discharge rate.
Tank Top = 82.675 / Tank Depth = 1.6m / Tank Base = 81.075
Top of Water Level 1 in 100 + 50% CC = 82.530 (1.455m H)
Top of Water Level 1 in 30 = 81.599
Tank Dimensions = See Plan

Flow Control Details - (S6)
Hydro-Brake® Optimum Flow Control - Surface/Storm Drainage System
1Nr 361mm Type SH (MD5) Hydro-Brake® Flow Control (Horizontal Discharge)
Technical Criteria: Design / Duty Point Flow = 87.0 l/s with Head = 1.935m
Flush-Flo™ Point Flow = 86.700 l/s Head = 0.646m
Kick-Flo® Point Flow = 73.400 l/s Head = 1.365m
Reference: MD-SHE-0361-8700-1935-8700

Linear Drain Types
LD1 = M200D 0.0 Linear Drain
Note: Grade of lids to be D400 in vehicular trafficked areas.
All linear drains to be fitted with silt box outlets.

Note
It is assumed that grease traps are integral/built into to kitchen units and appliances. Client/kitchen designer to advise on number of meals per day and method of dosing.

Note
Contractor to allow for all pipework associated with gas ventilation, vent boxes and drainage outlets to perimeter of building as advised by specialist.

Note
Drainage design is subject to agreement with UU and Westmorland and Furness Council LLFA.

Note
The rising man is to enter the break chamber (F6) sleeved within a pipe/duct and the end of rising main will protrude slightly (minimum 50mm) into the chamber, so that it is identifiable. The rising main in the pipe/duct should be grouted around to secure.

Note
Contractor to allow for capping off existing drains at extents of proposed development and making good. Drains to be surveyed and confirmed as redundant prior to capping.

Note
Contractor to allow for CCTV Survey of existing surface and foul water sewers from proposed point of connections to both the United Utilities sewers outfall and Norr Beck watercourse to confirm no blockages/remedial works are required. Allow for remedial works as advised by engineer following review of CCTV Survey.

Note
Contractor to allow for outlet box to all drainage channels before connection to main drainage run.

Note
Contractor to allow for site wide GPR Survey to allow design team review versus proposals to inform any amendments required.

Note
All level access doors (pedestrian and vehicular) to be provided with threshold linear drains. Linear drains to thresholds to connect into nearby SW sewers.

Note
The contractor is to allow for all mechanical, electrical, storage kiosk and breakdown alarm notification system infrastructure associated with the pumping station.

Note
Important Rising Main Note: Marker tape will to be provided above the rising main". On 'plastic' rising mains, the marker tape should include a tracer wire that is terminated in the valve chamber and outfall manhole, in such a way as to facilitate the easy connection of a location signal generator (cat and genny).

Note
All drainage within 3m of proposed or existing trees are to have trenches lined with permeable root protection barriers.

- DO NOT SCALE -

Notes

1. All works to be carried out in accordance with:
   - 1.1 Design and Construction Guidance (DCG) and Sewerage Sector Guidance (SSG) for all sewers proposed to be offered for adoption. (note - the SSG replaces Sewers for Adoption (SfA) for all new developments)
   - 1.2 BS EN 752 - 'Drain and Sewer Systems Outside Buildings'
   - 1.3 Current applicable Building Regulations
   - 1.4 BGP Specifications
   - 1.5 Manufacturer installation guidance and requirements
2. All levels shown are in metres and are relative to ordnance datum (m AOD).
3. Connection to United Utilities sewers are only to be carried out under an S106 agreement by UU approved term contractors unless agreed otherwise between both parties. (organised by main contractor)
4. Invert levels of all existing chambers and connection points are to be confirmed and engineer advised prior to commencement of any Drainage Works.
5. Where proposed sewers connect into existing sewers, the existing sewers must to be checked for line, level and condition preferably by a CCTV survey
6. Concrete bed and surround is required to all gully leads and to all pipes in highways/hardstanding where cover to pipe <1200mm
7. All pipes to be either extra strength V.C. to BS 65 or PVC certified to WIS 4-35-01 and BS/EN13476 or concrete pipes Class 120 to BS/EN 1916/BS5911-1 2002.
8. All RWP and slab penetration (PU) locations are indicative and accurate positions should be taken from the Architects drawings. All slab penetrations to be roddable above ground level via access pipe.
9. Existing sewer positions are indicative and are not to be used in conjunction with design. Contractor to confirm location.
10. All existing drainage to be cleaned and jetted as part of the contract
11. All RWP connections to be 100Ø and Surface water sewers to be 150Ø unless noted otherwise.
12. All FW drains to be 150Ø between inspection chambers/manholes and 100Ø unless noted otherwise elsewhere.
13. Contractor is responsible for positioning MHs so they do not compromise line or level of kerbing or other delineation at the juncture of two surface materials.
14. Cover levels shown are indicative and may vary on site. The contractor should adjust levels to suit site conditions
15. All internal manholes to be Type 'PPIC' with double seal covers u.n.o
16. All drainage beneath foundations / slab and building footprint is to be 150mm GEN3 concrete surround.
17. An nderground attenuation tank IS to be provided which has a net capacity of 960m³. Tanks shall be designed by specialist contractor to provide the net volume of attenuation required and comply with recommendations by Ciria with regard to access for maintenance and strength. The strength of the tank should comply with Ciria document C737" Structural design of Modular Geocell drainage tanks". The construction, installation and venting requirements of the tank shall be strictly in accordance with manufacturer guidance.
18. Other services are not shown on this drawing, however their presence must be anticipated. The contractor is to confirm prior to commencing any works, the location and depth of all services that may affect the works the manufacturers requirements and recommendations.

S.H.E.
Do not excavate until all underground services have been identified and marked out. Refer to service providers drawings and to the utilities survey drawings. Unknown underground services may exist. Check for services by carrying out a scan with a cable avoidance tool.

Legend

- Proposed SW Sewer
- Proposed FW Sewer
- Nor Beck (Culverted)
- Existing SW Sewer
- Existing FW Sewer
- Existing UU Combined Sewer
- Site Boundary
- Linear Drain
- Proposed Attenuation Tank
- Permeable Paved Paving with perf. pipe (Tanked)
- Highway Gully fitted with Naylor Smart Gully Adapter (or similar approved by LLFA) — G
- Pipe beneath ground beam
- Pipe through ground beam (cast into ground floor slab downstand locally)
- Gas Vent and associated drainage outlet

NOT FOR CONSTRUCTION

Stage 4 Issue	JJH	C03	JC	28.11.2025
Stage 4 Issue	JJH	C02	JC	07.11.2025
Stage 4 Issue	JJH	C01	JC	24.10.2025
Stage 3 Issue	JJH	P06	JC	01.10.2025
Stage 3 Issue	JJH	P05	JC	13.09.2025
Stage 3 Issue	JJH	P04	JC	09.01.2025
Draft Stage 3 Issue	JJH	P03	JC	12.12.2024
Issued for Planning	JJH	P02	JC	23.11.2023
Issued for Planning	JJH	P01	JC	22.09.2023
AMENDMENT	BY	REV	CHK	DATE

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Client	Cumberland Council
Project	CMIQ Phase 2 LUF - Unit 9 & 12
BGP Project No.	21T2034
Drawing Title	Drainage Plan

Drawn	Date	Checked	Date	Size	Scale	Rev.
JJH	Aug '23	JC	Aug '23	A1	1:500	C03

Location	Originator	Volume	Level	Form	Role	Unique No.
LUF	BGP	09	XX	D	C	09130

File Reference
LUF-BGP-09-XX-D-C-09130

In instances where this drawing completes or partly completes a contract, Billinghurst George & Partners will consider that it's product has been validated, unless in a period not exceeding 90 working days, the client advises to the contrary.