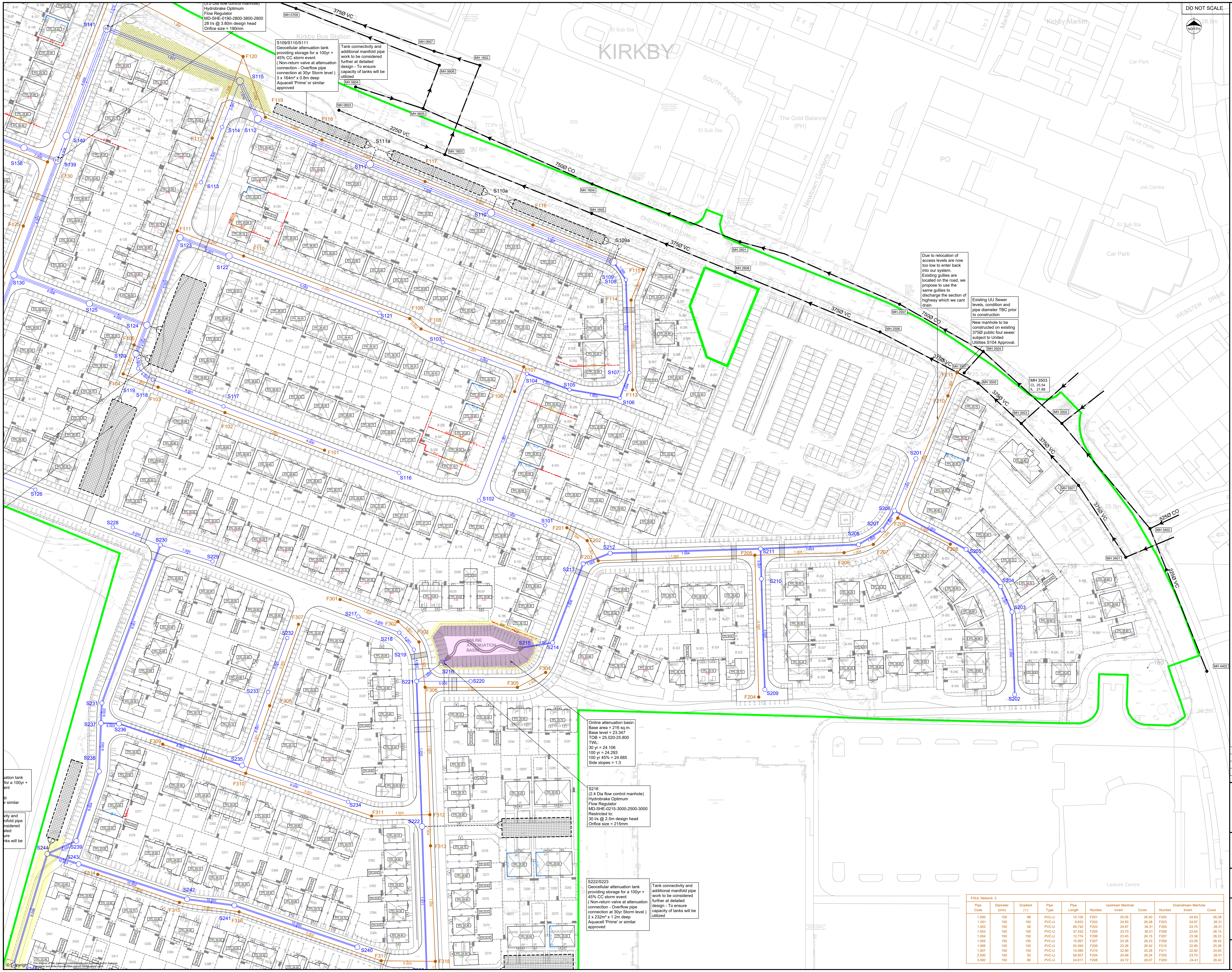

(3.0 Dia flow control manhole)
Hydrobrake Optimum
Flow Regulator
MD-SHE-0190-2800-3800-2800
28 l/s @ 3.80m design head
Orifice size = 190mm

S109/S110/S111
Geocellular attenuation tank providing storage for a 100yr + 45% CC storm event
(Non-return valve at attenuation connection - Overflow pipe connection at 30yr Storm level)
3 x 164m² x 0.8m deep
Aquacell 'Prime' or similar approved

Tank connectivity and additional manifold pipe work to be considered further at detailed design - To ensure capacity of tanks will be utilized

Due to relocation of access levels are now too low to enter back into our system. Existing gullies are located on the road, we propose to use the same gullies to discharge the section of highway which we cant drain

Existing UU Sewer levels, condition and pipe diameter TBC prior to construction

New manhole to be constructed on existing 375Ø public foul sewer subject to United Utilities S104 Approval.

Online attenuation basin
Base area = 216 sq.m.
Base level = 23.347
TOB = 25.020-25.800
TWL:
30 yr = 24.106
100 yr = 24.293
100 yr 45% = 24.685
Side slopes = 1:3

S216
(2.4 Dia flow control manhole)
Hydrobrake Optimum
Flow Regulator
MD-SHE-0215-3000-2500-3000
Restricted to:
30 l/s @ 2.5m design head
Orifice size = 215mm

S222/S223
Geocellular attenuation tank providing storage for a 100yr + 45% CC storm event
(Non-return valve at attenuation connection - Overflow pipe connection at 30yr Storm level)
2 x 232m² x 1.2m deep
Aquacell 'Prime' or similar approved

Tank connectivity and additional manifold pipe work to be considered further at detailed design - To ensure capacity of tanks will be utilized

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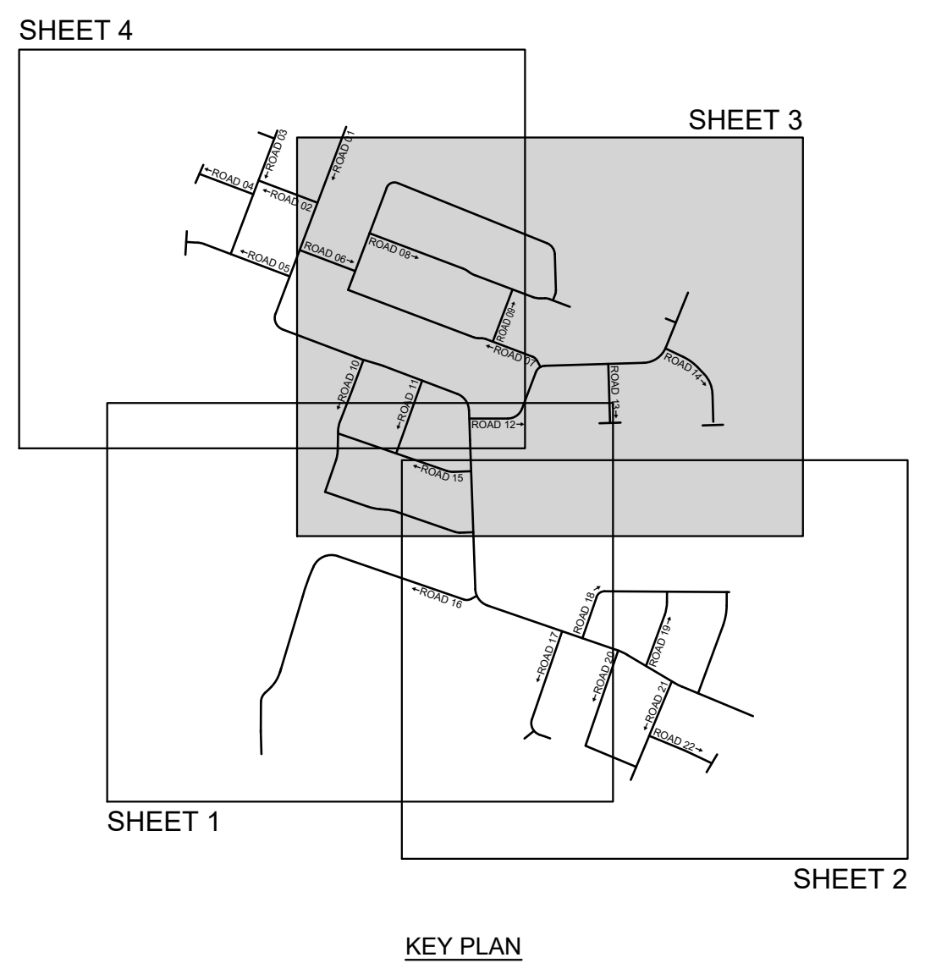
FOUL Network 2										
Pipe Code	Diameter (mm)	Gradient (1:)	Pipe Type	Pipe Length	Upstream Manhole			Downstream Manhole		
					Number	Invert	Cover	Number	Invert	Cover
1.000	150	88	PVC-U	10.100	F201	25.05	26.40	F202	24.93	26.28
1.001	150	150	PVC-U	9.623	F202	24.93	26.28	F203	24.87	26.31
1.002	150	56	PVC-U	65.742	F203	24.87	26.31	F205	23.70	26.51
1.003	150	150	PVC-U	37.432	F205	23.70	26.51	F206	23.45	26.15
1.004	150	150	PVC-U	12.774	F206	23.45	26.15	F207	23.36	26.23
1.005	150	150	PVC-U	15.067	F207	23.36	26.23	F209	23.26	26.42
1.006	150	150	PVC-U	55.394	F209	23.26	26.42	F210	22.90	25.28
1.007	150	150	PVC-U	10.580	F210	22.90	25.28	F211	22.82	24.93
2.000	150	50	PVC-U	59.507	F204	24.89	26.24	F205	23.70	26.51
3.000	150	80	PVC-U	24.617	F208	24.72	26.07	F209	24.41	26.42



KEY PLAN

Notes

1. Setting out shall be undertaken using only the information given. Distances should not be scaled from this drawing.
2. All sewers shall be constructed in accordance with Design and Construction Guidance (DCG) Standards and United Utilities Details & Guidelines.
3. The minimum gravity pipe diameter under adoptable highways shall be 150mm
4. It is the responsibility of the Contractor to verify all information given with regards to existing services and drainage connections etc. prior to commencing the works. The rates shall include for hand dig around services where necessary. The Contractor shall adhere to the CDM Regulations at all times
8. All materials to bear the relevant B.S. Kitemark and comply fully with the specifications. All concrete & concrete products must use Sulphate resistant cement to withstand Class 3 condition (unless the site investigation report proves that sulphate attack from soils and groundwater will not occur).
9. All opening notices etc. as required under Highways Acts etc. are to be obtained prior to commencement of works. All works are to be inspected by L.A., NHBC or the Network Operator as applicable.
10. Where structured wall UPVC pipes (or similar approved) are used in adoptable drainage they shall be handled and laid in accordance with the manufacturers instructions and will be subject to post installation deformation testing prior to adoption.
    A Class S Bed and Surround must be used for structured wall pipes
11. Trench backfill in highways to within 1m of highway shall, as directed by the Highway Authority be a suitable granular material all in accordance with Design and Construction Guidance (DCG) Standards.
12. Slab levels shall not be varied without reference to the Engineer for guidance.
13. Pipes have not been designed to accommodate construction traffic loading. The contractor is responsible for providing adequate protection to the pipes during construction.

Design based on Layout:
Kirkby, Cherryfield Drive, Planning Layout
Dwg No. H9305-01, Dated 18 Aug 2023
Rev: N

Grid/Level datum based on Topos:
Cherryfield Drive, Kirkby.
Topographical Land Survey.
Dwg No. DWH.TS.04 Sheets 1 to 3, Dated 27.04.21
Rev: -

Topographical Land Survey.
Former All Saints School Cherryfield Drive, Knowsley.
Dwg No. A0 14F063/001 Sheets 1 & 2, Dated July '14
Rev: -

Note:
FFL levels are subject to +/-300mm change during detailed design

Legend

SW ●	Existing Surface Water Sewer
FW ●	Existing Foul Water Sewer
○ S101	Adoptable Surface Water Sewer
○ F101	Adoptable Foul Sewer
FC	Flow Control Manhole
FFL xx.xx	Plot Slab Level
+0.55 -0.20	Level Difference from existing ground level
▦	Surface Water Attenuation Tanks
🟨	Sewer Easement

STRATEGY

Rev.	Date	Revision	By	Appd.
D	29.04.24	Updated to suit revised Planning Layout	JAR	AJ
C	04.08.23	Updated to suit revised Planning Layout	JAR	AJ
B	07.06.23	Updated to suit revised Planning Layout	PW	AJ
A	25.11.22	Updated to suit revised Planning Layout	PJN	JAR

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Chester
CH4 9QU

Client
DAVID WILSON HOMES

Project
CHERRYFIELD DRIVE,
KIRKBY.

Title
Drainage Strategy
Sheet 3 of 4

DRAWING NUMBER	SCALE at A0	1:500	
7778 / SK04-3	DATE	March '22	REVISION
	DRAWN	JAR	D
	CHECKED	AJ	