

DO NOT SCALE

Notes

- All dimensions are in millimetres unless otherwise shown.
- All adoptable drainage shall be constructed in accordance with 'Sewers for Adoption' 7th Edition, Welsh Ministers Standards and Welsh Water Details and Guidelines.
- All private drainage works are to comply fully with Part H of the Building Regulations.
- All existing invert levels to be checked by the contractor at the start of works and any other discrepancies notified to the Engineer prior to commencing works. All levels are based on topographical survey information provided by others.
- 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 Contractor shall adhere to the CDM Regulations at all times.
- Only trained personnel shall be permitted to enter confined spaces.
- All materials to bear the relevant B.S. Kitemark and comply fully with the Sewers for Adoption 7th Specification. All concrete & concrete products must use Sulphate resistant cement (unless the site investigation report proves that sulphate attack from soils and groundwater will not occur to withstand a class 3 condition).
- 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 Welsh Water as applicable.
- 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 Sewers for Adoption.
- Cover loadings shall be as detailed on the Manhole Schedule.
- Drain trenches should not be excavated lower than the foundations of any building nearby unless either:
a) The trench is within 1m of the foundation, the trench is filled with concrete up to the lowest level of the foundation, or
b) Where the trench is further than 1m from the building, the trench is filled with concrete to a level below the lowest level for the building equal to the distance from the build, less 150mm.
- All SVP and RWP connections are indicative and shall be confirmed by the client.
- Pipe gradients out of the building to connecting manhole to be laid at 1:40 in accordance with Building Regulations, Part H, Table 6.
- Where pipe sizes are not indicated :
1000 to be used for foul
1000 to be used for surface water unless stated otherwise.
- Minimum surface water gradients shall be:
1000 laid at 1:100 with the exception of the first connection which shall be minimum 1:60
1500 laid at 1:150
- Minimum 1000 foul drainage gradient to be 1:80 with the exception of the first connection which shall be minimum 1:40.
- Manhole covers to be marked FWS or SW as appropriate.
- All manhole covers and frames shall comply with BS EN124. All adoptable manholes and chambers shall comply with Sewers for Adoption 7th Edition. Covers in roads to be grade D400 and be 150mm deep. Manhole covers in car parking areas and drives to be grade B125 and covers in landscaping areas to be grade A15. All to be sized in accordance with Building Regulations Part H, Tables 11 & 12.
"In-fill" type covers should not be used. Where a cover is located in an area of block paving, the bottom of the frame should be 150mm deep.
- Precast concrete rings to be reinforced.
- Backdrops in private manholes / inspection chambers to be internal
- Private drains laid under adopted / private roads to be Class S granular bed and surround with a minimum of 1.2m cover, where this cannot be achieved a Class Z concrete bed and surround shall be provided.
- Private drains located under landscape areas or driveways / car parking bays to be Class B granular bed and surround with a minimum 0.6m cover, where this cannot be achieved a Class Z concrete bed and surround shall be provided.
- Pipes have not been designed to accommodate construction traffic loading. The contractor is responsible for providing adequate protection to the pipes during construction.
- Slab levels shall not be varied without reference to the Engineer for guidance.
- The developer must self-verify 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 (SFA 7th). The Welsh Ministers Standards and the requirement of DCWW as the Statutory Sewerage Undertaker.
- Subject to a Section 104 Adoption Agreement being complete, a Section 106 application to connect must be made to DCWW the developer shall be given 21 days notice prior to connection. The works may only be undertaken by an SSIP Health & Safety approved contractor.
- Adoptable materials and workmanship conform to part E of 'Sewers for Adoption' 7th Edition.
- All highway gullies to be 150mm pipework connecting into main Surface Water sewer.
- All surface water SUDS features to be adopted by SAB but to be maintained by private water management company set up by Gower Homes.
- All foul water drainage serving more than one plot to be presented to DCWW for adoption.
- All landscaping to conform to B3.1.13 of Sewers for Adoption 7.

Legend

- Site Boundary
- Existing
- Combined
- Existing Combined Sewer (Welsh Water Sewer Records)
- Existing Highway Drain (Welsh Water Sewer Records)
- Proposed
- 2250 IC 4500 IC 12000 MH
- Private Surface Water Drain
- SABS Adoptable Surface Water Drain
- Private Foul Drain
- S104 Adoptable Foul Drain
- SVP
- BIG
- RWP
- Rodding Eye
- Linear Drainage Channel
- Private Road Gully
- Flow Control Manhole
- Highway Gully
- Tanked Permeable Paving (with service corridors provided for foul sewers)
- Plot Slab Level
- Flow Control
- Catchpit
- Diffuser Unit
- Water Butt

FFL xx.xx

Pipe Materials Table

Pipe Materials Table	Pipe Materials Table
100	UPVC
150	UPVC
225	UPVC
300	UPVC

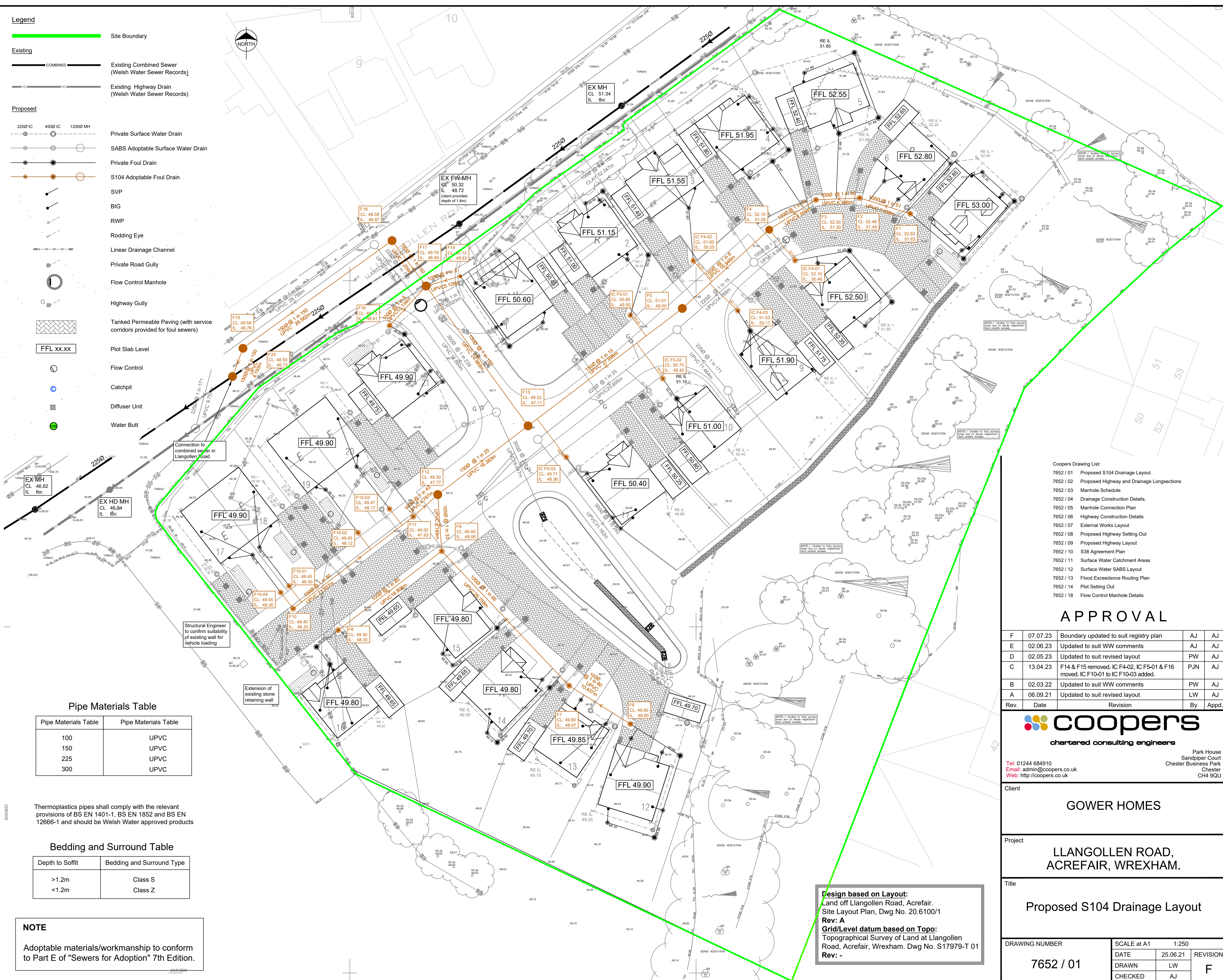
Bedding and Surround Table

Depth to Soffit	Bedding and Surround Type
>1.2m	Class S
<1.2m	Class Z

NOTE

Adoptable materials/workmanship to conform to Part E of "Sewers for Adoption" 7th Edition.

Thermoplastics pipes shall comply with the relevant provisions of BS EN 1401-1, BS EN 1852 and BS EN 12666-1 and should be Welsh Water approved products



- Coopers Drawing List:
- 7652 / 01 Proposed S104 Drainage Layout
 - 7652 / 02 Proposed Highway and Drainage Longsections
 - 7652 / 03 Manhole Schedule
 - 7652 / 04 Drainage Construction Details.
 - 7652 / 05 Manhole Connection Plan
 - 7652 / 06 Highway Construction Details
 - 7652 / 07 External Works Layout
 - 7652 / 08 Proposed Highway Setting Out
 - 7652 / 09 Proposed Highway Layout
 - 7652 / 10 S38 Agreement Plan
 - 7652 / 11 Surface Water Catchment Areas
 - 7652 / 12 Surface Water SABS Layout
 - 7652 / 13 Flood Exceedance Routing Plan
 - 7652 / 14 Plot Setting Out
 - 7652 / 15 Flow Control Manhole Details

APPROVAL

F	07.07.23	Boundary updated to suit registry plan	AJ	AJ
E	02.06.23	Updated to suit WW comments	AJ	AJ
D	02.05.23	Updated to suit revised layout	PW	AJ
C	13.04.23	F14 & F15 removed. IC F4-02, IC F5-01 & F16 moved. IC F10-01 to IC F10-03 added.	PJN	AJ
B	02.03.22	Updated to suit WW comments	PW	AJ
A	06.09.21	Updated to suit revised layout	LW	AJ
Rev.	Date	Revision	By	Appd.

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Client
GOWER HOMES

Project
**LLANGOLLEN ROAD,
ACREFAIR, WREXHAM.**

Title
Proposed S104 Drainage Layout

DRAWING NUMBER	SCALE at A1	1:250
7652 / 01	DATE	25.06.21
	DRAWN	LW
	CHECKED	AJ
	REVISION	F

Design based on Layout:
Land off Llangollen Road, Acrefair.
Site Layout Plan, Dwg No. 20.6100/1
Rev: A
Grid/Level datum based on Topo:
Topographical Survey of Land at Llangollen Road, Acrefair, Wrexham. Dwg No. S17979-T 01
Rev: -