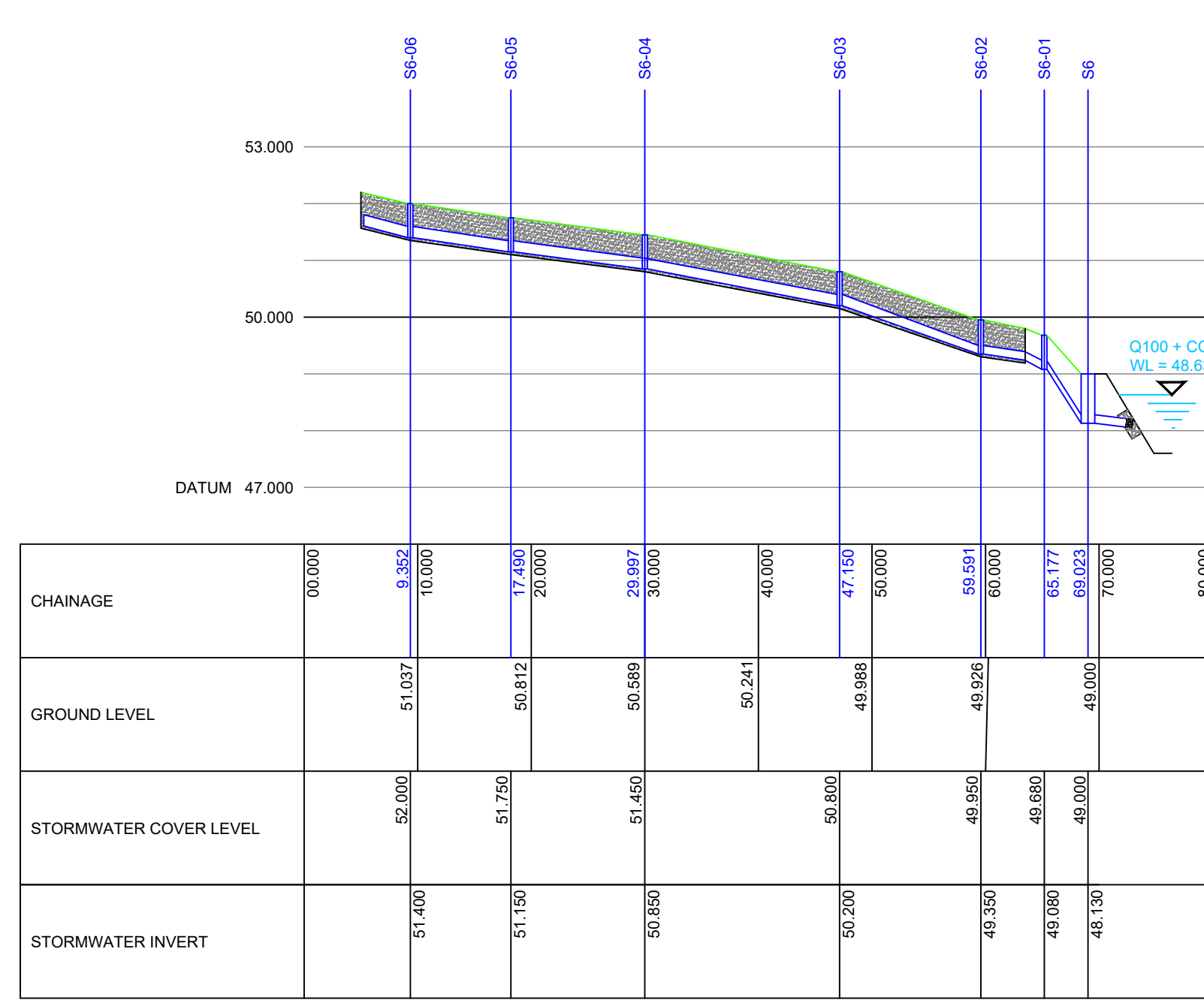
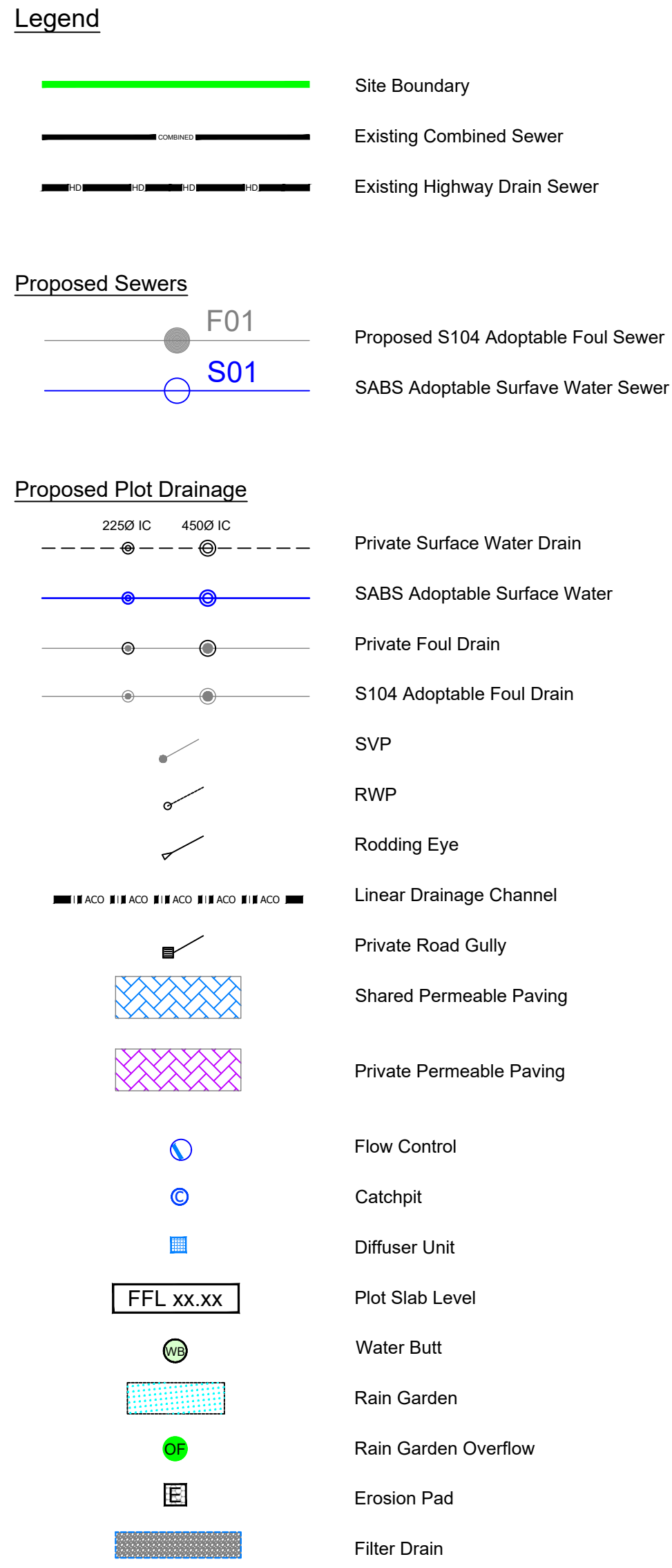


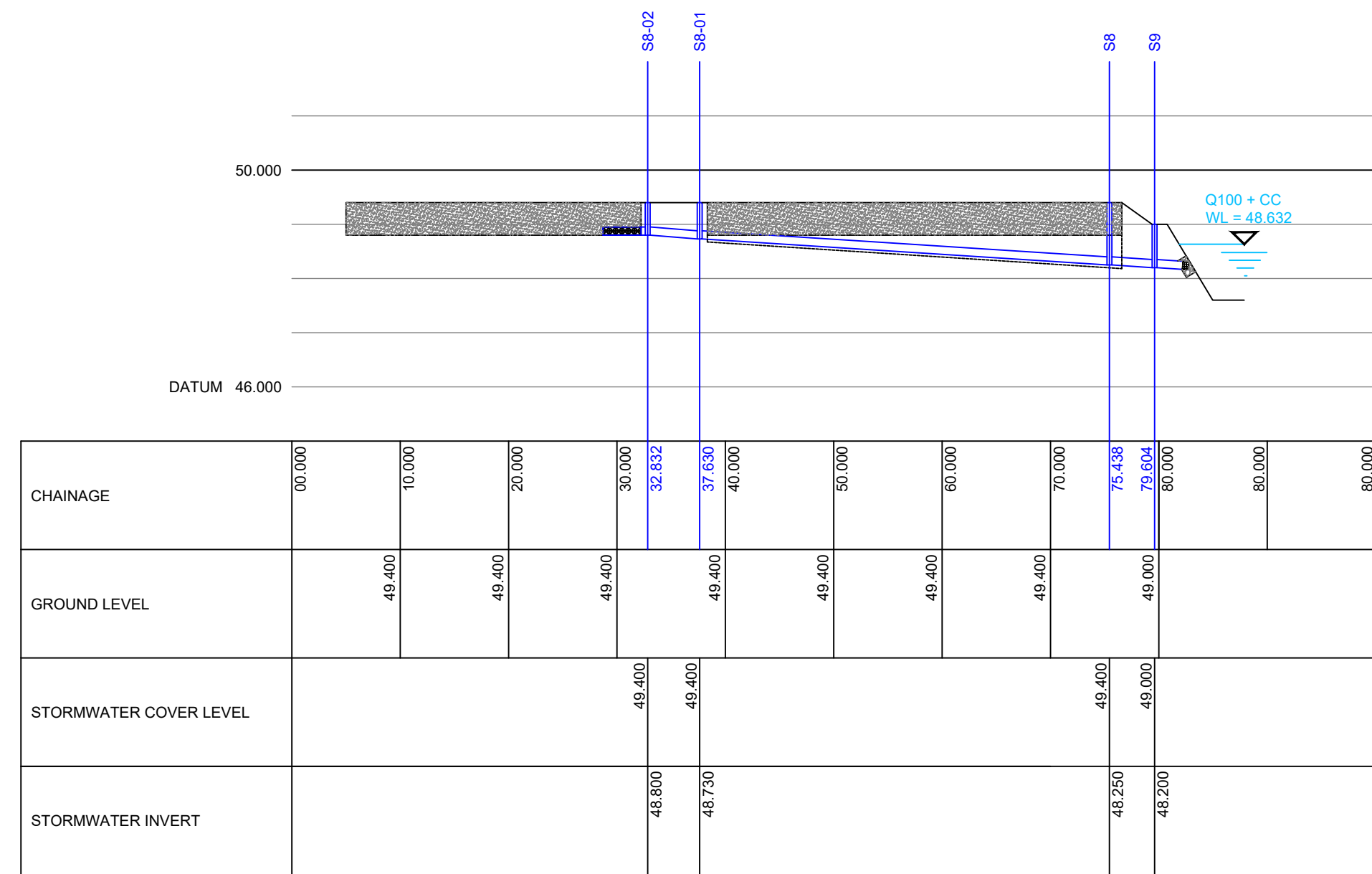
DO NOT SCALE



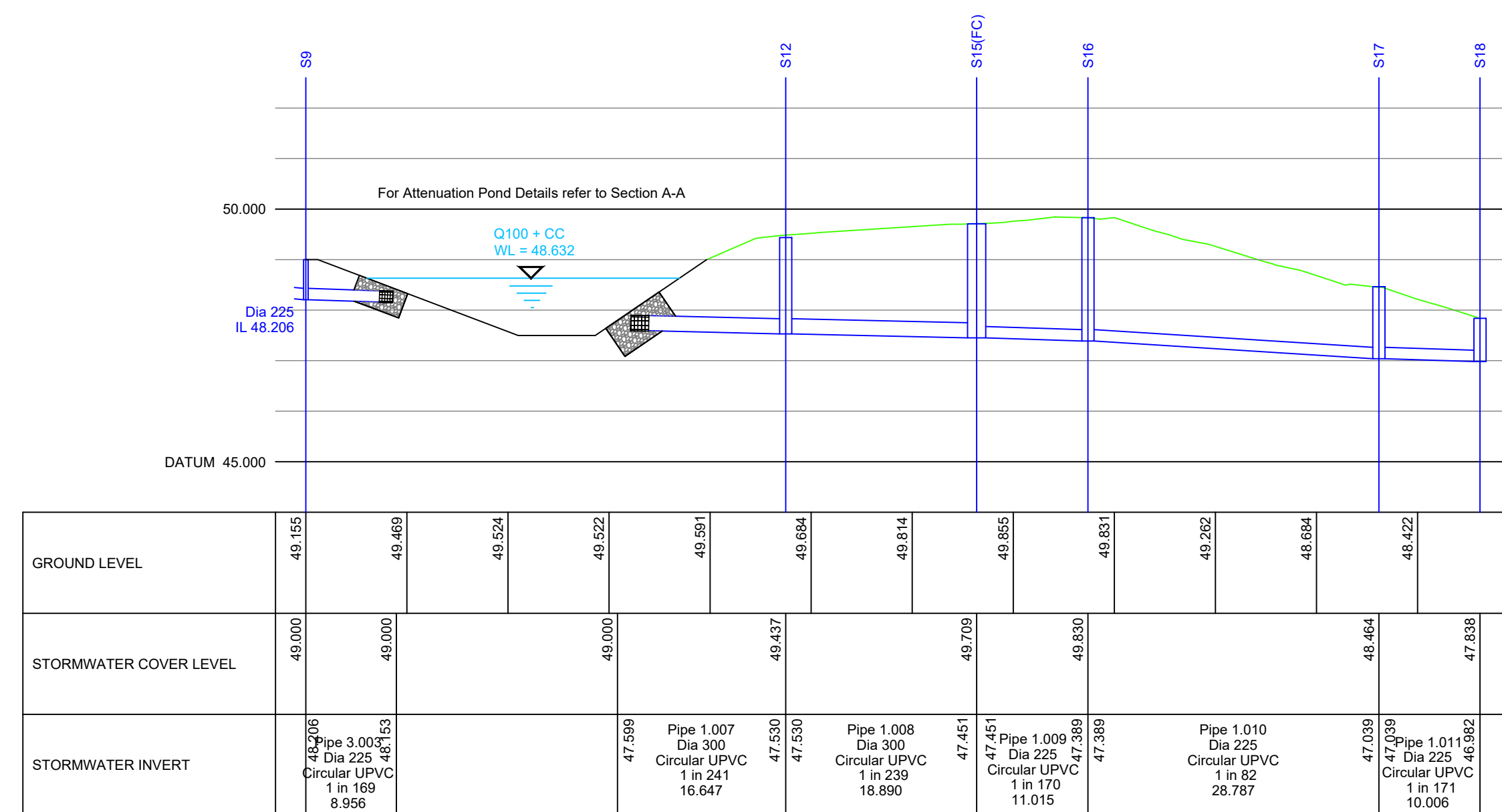
Site Layout
Scale 1:250



Section Through Filter Drain to Outfall
Scale H 1:500 V 1:100



Section Through Private Drives (Plots 12-17) to Outfall
Scale H 1:500 V 1:100



Section Through Basin/Outfall
Scale H 1:500 V 1:100

Surface Water Flow Rates

Developable Site Area = 1.05ha

Existing Brownfield Run-off Rates
Based on 400sq.m. existing impermeable area only car park (shown in red) is still being drained

1yr = 27.82 l/s (25.04 mm/hr rainfall)
30yr = 67.93 l/s (61.14 mm/hr rainfall)
100yr = 87.48 l/s (78.73 mm/hr rainfall)

Proposed Run-off Rates
(30% betterment on existing 1 year flow rate)

1yr = 19.47 l/s
30yr = 19.47 l/s
100yr = 19.47 l/s

Proposed impermeable areas = 3700sq.m.
100yr attenuation storage = approx 125cu.m
(+40% climate change)

Pipe Materials Table

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

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

Bedding and Surround Table

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

Maintenance / Responsibilities

Adoption and maintenance of all surface water components serving 2 or more properties subject to SAB approval.

Gower Homes are proposing to set up a 'Private Management Company' to maintain the SAB approved surface water network in the future.

WCBC SABS require details of the Management Company

Pipes and manholes:
All piped networks to have CCTV survey at end of construction activities. Any debris to be removed. Future maintenance to involve inspections to ensure no silt build ups within network.

SUDS Management Plan to be produced to address frequency and type of maintenance activities

Permeable Paving:
To be maintained by private 'Management Company' SUDS Management Plan to be produced to address frequency and type of maintenance activities

Dry Basin:
To be maintained by private 'Management Company' SUDS Management Plan to be produced to address frequency and type of maintenance activities

Flow Control:
To be maintained by private 'Management Company' SUDS Management Plan to be produced to address frequency and type of maintenance activities

Residents Safety Information Board
(Wording to be agreed with WCBC)

Example: DRY BASIN
This feature is part of the surface water drainage network for this development. Temporary water depths of 1032mm can be expected in storm events and should not be accessed during such events.

Please contact WCBC to report any issues relating to condition or misuse.

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., NIIBC 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 1:100
- 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 landscaping 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 drainages serving more than one plot to be presented to DCWW for adoption.

Coopers Drawing List:

7852 / 01	Proposed S104 Drainage Layout
7852 / 02	Proposed Highway and Drainage Longsections
7852 / 03	Manhole Schedule
7852 / 04	Drainage Construction Details
7852 / 05	Manhole Connection Plan
7852 / 06	Highway Construction Details
7852 / 07	External Works Layout
7852 / 08	Proposed Highway Setting Out
7852 / 09	Proposed Highway Layout
7852 / 10	S38 Agreement Plan
7852 / 11	Surface Water Catchment Areas
7852 / 12	Surface Water SABS Layout
7852 / 13	Flood Evacuation Routing Plan
7852 / 14	Plot Setting Out
7852 / 18	Flow Control Manhole Details

APPROVAL

B	06.04.23	Updated to suit SABS comments	PW	AJ
A	08.09.21	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
Surface Water SABS Layout
& Details
Sheet 1 of 2

DRAWING NUMBER	SCALE at A0	1:250
7652 / 12-1	DATE	28.06.21
	DRAWN	LW
	CHECKED	AJ
	REVISION	B