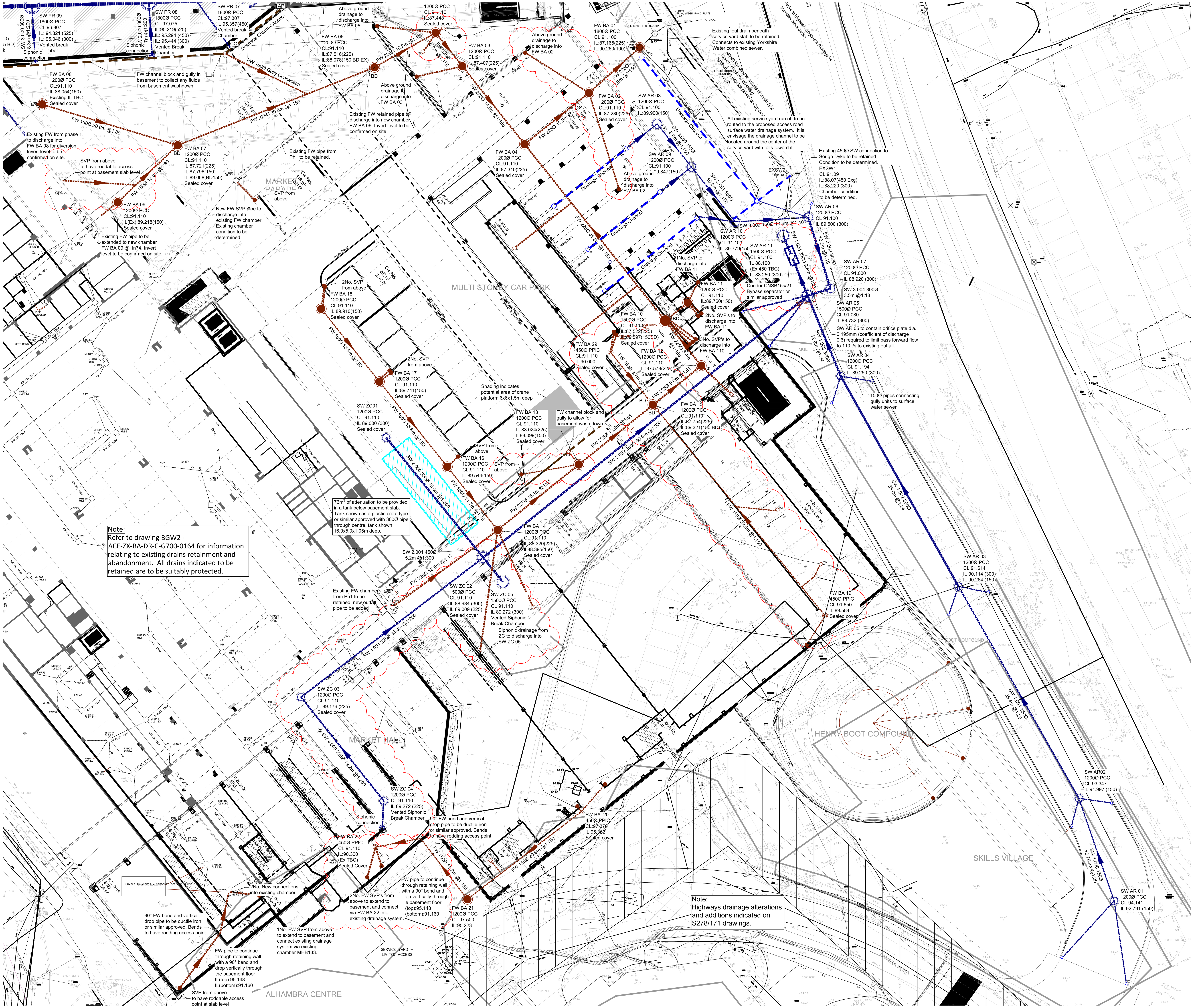
Do Not Scale



L:\adept_projects\00_clients\2018\00.18138 - Glassworks, Barnsley\01-WIP\Drawings\Civil\References\XREF - Proposed drainage layout.dwg, 4/17/2019 1:43 PM,

KEY

PCC Manhole, Brick Manhole, PPIC	Proposed Surface water
PCC Manhole, Brick Manhole, PPIC	Proposed Foul water
—— FW —·—>—— FW —·—>——	Existing Foul water
—— SW ——>—— SW ——>——	Existing Surface water
▬ ▬ ▬	Channel Drain
AP	Channel Drain Access Point
CO	Channel Outlet
G	Gully
FGL	Foul Water Gully

Drainage Design Assumptions

1. Based on the FRA submitted for planning, the peak discharge from site is to be restricted to 267 l/s. The existing surface water outfall will be need to be restricted to 110 l/s.
2. The total impermeable area for the access road, plot ZC and existing service yard is measured/calculated to be 6960m². The breakdown of the various areas are detailed below,
   - The access road - 1290m²
   - Plot RZC (including parking rotunda) - 4620m²
   - Existing service yard - 1050m²
3. The attenuation tank will serve plot ZC and assume all discharge from the plot will outfall to the attenuation tank direct.
4. All internal manholes are specified as sealed manhole to prevent flooding/smells internally.
5. Existing service yard drainage to be routed to the proposed surface water system.
6. Due to all internal manholes are required to be sealed to prevent flooding/surcharging and the hydraulic system is designed as off line attenuation, it is proposed that the syphon to be broken prior to entry into the manholes. As it is deemed unsuitable to break syphon within the chamber.

DESIGN REVIEW

Design review by:	**	Checked by:	**

Residual hazards:

1. For general notes refer to drawing 002.

Health, Safety & Environmental Notes

Drawing Notes

Drainage

1. This drawing should be read in conjunction with Adept specification for drainage works and any other subsequent additions to this list.
2. All building drainage works shall be carried out in accordance with the current British/European standards BSEN752, the current building regulations and the local authority building control or NHBC specifications and requirements.
3. For external finished ground levels refer to architects external works drawing.
4. All private foul drainage to be 100ø laid at a minimum gradient of 1 in 40, all private surface water drainage to be 100ø laid at a minimum gradient of 1 in 60 unless otherwise noted. Pipework to be laid to inverts shown on schedule.
5. All Junctions are to be done using a 'Y' junction to direct the flow in line with the main pipe.
6. All cover levels to manholes are approximate only and may be adjusted on site to tie in with Architects proposed levels.
7. Exact location of rainwater downpipes and all internal drainage points to be confirmed by Architect. Rainwater pipe outlets to be rodable.
8. For all setting out, dimensions and current site layout refer to Architects drawing. Do not scale from this drawing
9. Invert levels of all outfall points to be clarified prior to commencing drainage works. Position size and depth of all existing drains and services shall be established prior to commencement on site and any discrepancies reported to engineer.
10. The contractor shall allow for the protection, temporary and permanent support, and temporary and permanent diversion works, as necessary to all existing services
11. The contractor shall allow for all traffic management in connection with road and sewer works
12. The contractor shall allow for keeping trenches and excavations as dry as practicable by pumping from temporary sumps and dewatering as appropriate. The point and method of discharge to be agreed with the drainage authority and Environment Agency
13. Contractor to apply for sewer permits and road opening permits as necessary from the appropriate authorities, prior to commencing works.
14. At changes in pipe diameter Soffits to coincide unless noted otherwise
15. Wherever possible, drainage works are:
    - To commence at outfall
    - To work Upstream
16. Generally all Adoptable pipe work < 300 to be Clay, > 300 to be Concrete. With the strengths shown below:

    Clay Pipe Min Strengths
    100mm dia 40KN/m
    150mm dia 40KN/m
    225mm dia 45KN/m
    300mm dia 72KN/m

    Concrete Pipe Min Strengths all diameters to be class 120 (54KN/m).

    Where plastic pipework is proposed Water Authority & Highway Authority requirements for strength and durability will vary. Calculations may well be required from the pipe supplier. Min. requirements as below;
    Deformation limit: 5% at 300 days
    Jetting pressure: 4000psi
17. Tree's should not be planted within 5m of adoptable sewers, where this is not possible due to planning conditions a suitable root barrier needs to be installed around any tree types that are within the prescribed restrictions as set out in Sewers for Adoption 6th Edition Figure 2.3. Where the Mature tree canopy will overhang the adoptable highway a suitable root barrier will be required to prevent damage to statutory undertakers equipment and the integrity of the highway construction.

Date	Revision	By	Chkd	Rev
17.04.19	Back drop to SWAR05 removed, IL of SWAR07 altered to suit revised gradient. SWZC03, 04&05 added. FWBA15&19 moved, FWBA29 added. FWBA02 moved. To suit M&E Above ground Drawings	JE	RP	C2
01.04.19	Contract Issue	JE	RP	C1
29.03.19	FW 15 moved, FW19-22 added to suit SVP layout	JE	RP	P4
18.02.19	Basement drainage/diversion added, FW basement drainage to ZD added, fw drainage altered to suit, FW gullies added to plant rooms. Abandoned drainage removed.	JE	RP	P3
06.02.19	Tank location moved to avoid crane platform	JE	RP	P2
22.01.19	Initial Issue	DZ	RP	P1

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Project
The Glassworks
Barnsley

Title
Proposed Drainage Layout 2 - Access road & ZC

Client
Henry Boot CONSTRUCTION

Scale @ A0	Drawn	Checked	Date
1:200	DZ	RP	Jan 19

Suitability	Purpose
D4	Contract

UPRN Originator Zone Level Type Role Class Drg. No. Rev.
BGW2- ACE-XX-ZZ-DR-C-G700 - 0162 - C2