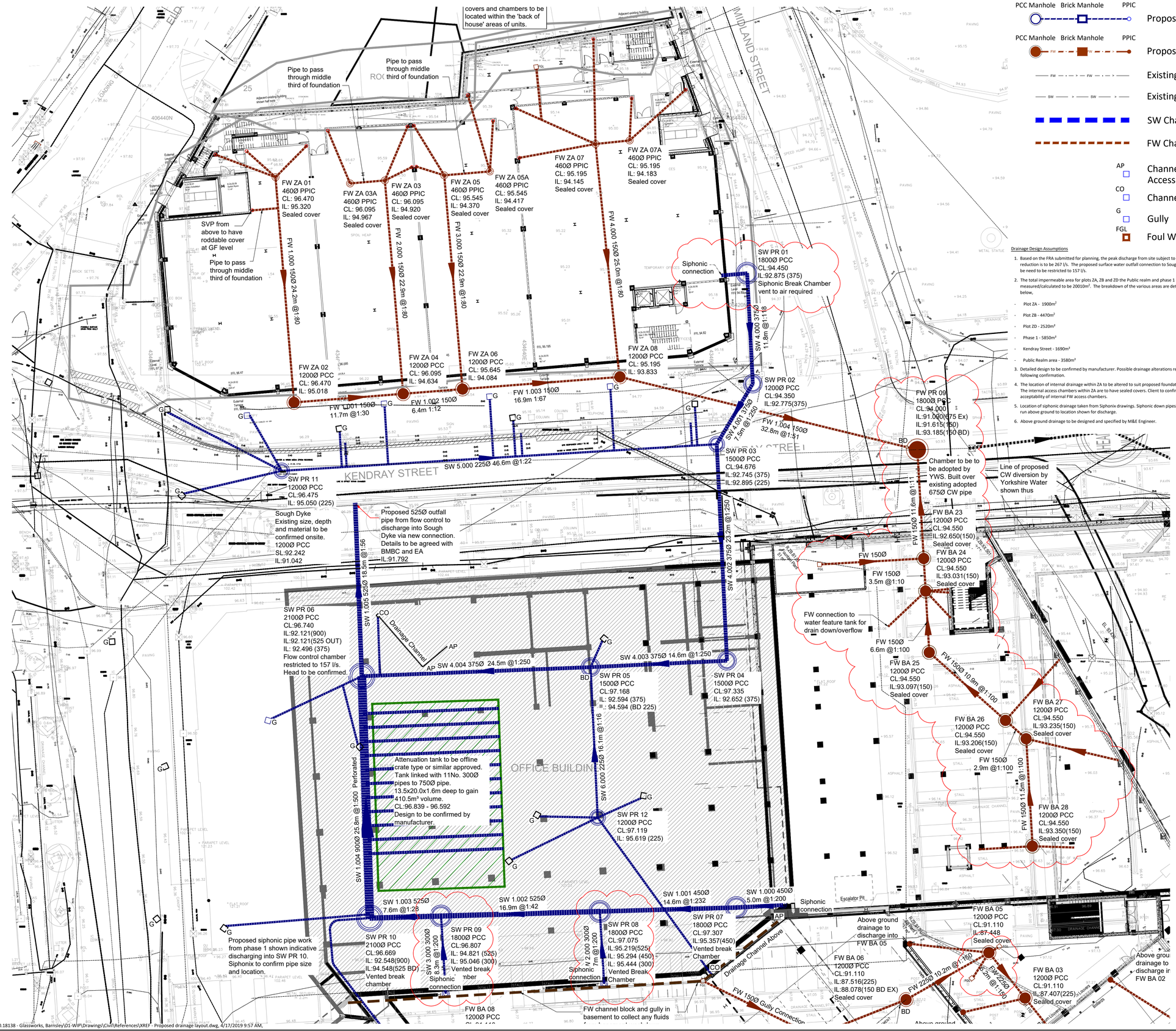
Do Not Scale



KEY

- Proposed Surface water (PCC Manhole, Brick Manhole, PPIC)
- Proposed Foul water (FW)
- Existing Foul water
- Existing Surface water (SW)
- SW Channel Drain
- FW Channel Block
- 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 subject to a 30% reduction is to be 267 l/s. The proposed surface water outfall connection to Sough Dyke will be need to be restricted to 157 l/s.
2. The total impermeable area for plots ZA, ZB and ZD the Public realm and phase 1 is measured/calculated to be 20010m². The breakdown of the various areas are detailed below,
   - Plot ZA - 1900m²
   - Plot ZB - 4470m²
   - Plot ZD - 2520m²
   - Phase 1 - 5850m²
   - Kendray Street - 1690m²
   - Public Realm area - 3580m²
3. Detailed design to be confirmed by manufacturer. Possible drainage alterations required following confirmation.
4. The location of internal drainage within ZA to be altered to suit proposed foundation layout. The internal access chambers within ZA are to have sealed covers. Client to confirm acceptability of internal FW access chambers.
5. Location of siphonic drainage taken from Siphonix drawings. Siphonic down pipes in ZB to be run above ground to location shown for discharge.
6. Above ground drainage to be designed and specified by M&E Engineer.

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	FW and SW drainage to ZA altered. FW drainage to ZB BA added. SWPR08&09 moved to suit Siphonic locations	JE	RP	C2
01.04.19	Contract Issue	JE	RP	C1
29.03.19	FW to ZA altered to suit revised SVP layout	JE	RP	P6
26.02.19	Carrier pipe altered to 900Ø. 300Ø pipes extended thro. tank.	JE	RP	P5

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Project
The Glassworks Barnsley

Title
Proposed Drainage Layout 1

Client
Henry Boot Construction

Scale @ A1	Drawn	Checked	Date
1/200	JE	RP	Oct 18

Suitability	Purpose
D4	Contract

UPRN	Originator	Zone	Level	Type	Role	Class	Drg. No.	Rev.
BGW2-	ACE	XX	ZZ	DR	C	G700	0161	C2

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