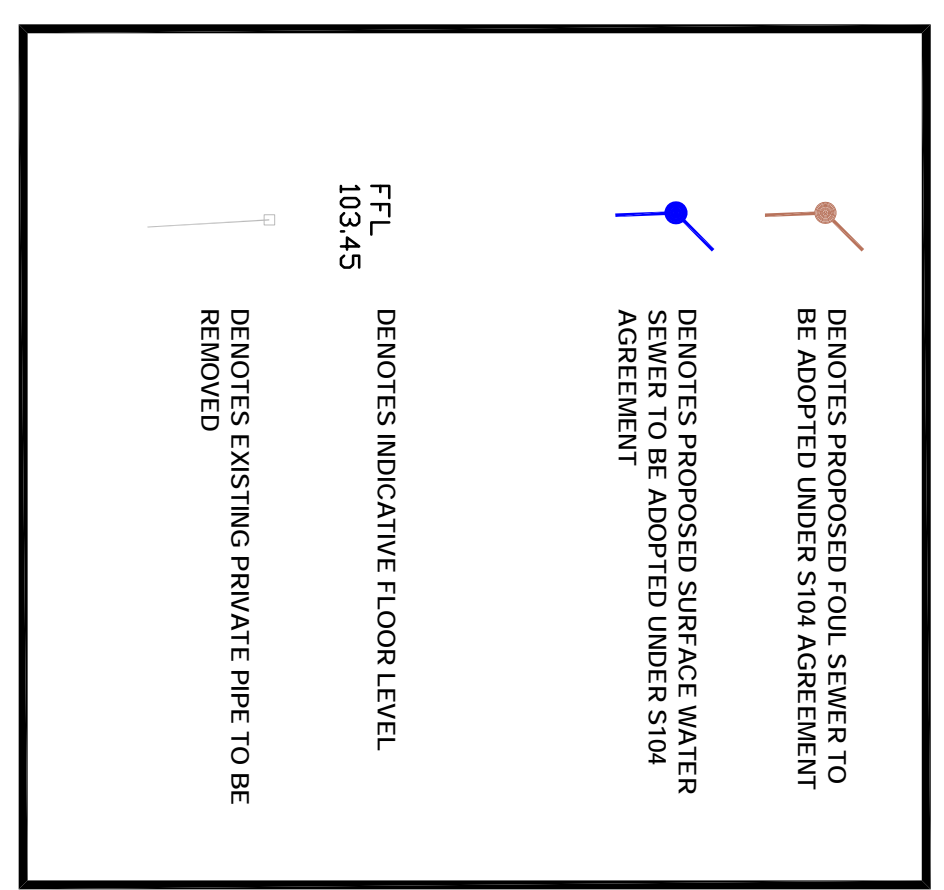


FLOOR LEVELS ARE INDICATIVE AT THIS STAGE AND SUBJECT TO CHANGE AT DETAILED DESIGN STAGE  
ALL INVERT LEVELS ARE TO BE VERIFIED BY DEVELOPER

THE SURFACE WATER SYSTEM HAS BEEN DESIGNED TO CATER FOR THE 1 IN 100 YEAR + 30% CC EVENT WITHIN THE PIPED SYSTEM BELOW THE ROADS  
THE FOUL AND SURFACE WATER DRAINAGE SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE FRA, SFA 6th EDITION AND SC030219 AND ARE SUBJECT TO APPROVAL BY UNITED UTILITIES  
INFILTRATION HAS BEEN DISCOUNTED AS A SUITABLE MEANS OF SURFACE WATER DISPOSAL DUE TO GROUND CONDITIONS.



ALL DESIGNS SHOWN ARE FOR APPRAISAL PURPOSES ONLY AND ARE SUBJECT TO DETAILED DESIGN AND APPROVAL BY THE RELEVANT REGULATORY AUTHORITIES AT THE APPROPRIATE TIME DRAWING IS THUS NOT ISSUED FOR CONSTRUCTION PURPOSES

SURFACE WATER IS TO DISCHARGE EXISTING SURFACE WATER SEWER IN LINE WITH PLANNING PERMISSION FLOWS HAVE BEEN RESTRICTED TO UNITED UTILITIES PRE DEVELOPMENT ENQUIRY RATE OF 26 LITRES/SECOND  
SURFACE WATER SYSTEM HAS BEEN DESIGNED TO STORE RUN OFF FROM HARD PAVED AREAS WITH NO SURFACE FLOODING FOR EVENTS UP TO AND INCLUDING THE 1% AEP + 30% CLIMATE CHANGE STORM FLOWS TO BE RESTRICTED USING HYDROBRAKE IN MANHOLE S10.  
THE ABOVE PROPOSAL IS SUBJECT TO FULL DETAILED DESIGN AND APPROVAL BY UNITED UTILITIES AND THE LLFA  
THE PRINCIPLES OF THE DESIGN ARE IN LINE WITH DEFRA PUBLICATION 'SUSTAINABLE DRAINAGE SYSTEMS - NON STATUTORY TECHNICAL STANDARDS FOR SUSTAINABLE DRAINAGE SYSTEMS' DATED MARCH 2015 AND SC030215 'RAINFALL RUN OFF MANAGEMENT FOR DEVELOPMENT SITES'.  
THE PIPE DIAMETERS AND GRADIENTS SHOWN ARE FOR GUIDANCE ONLY AND MAY BE SUBJECT TO CHANGE AT DETAILED DESIGN STAGE

- GENERAL**
- All adoptable sewers and associated works are to comply fully with 'Sewers for Adoption' - Education
  - All highway works are to be adopted standalone and to comply fully with the local highway specifications.
  - All works shall be carried out in accordance with part 1 of the British Republicatory
  - All existing invert levels to be checked by the Contractor at the start of works and any discrepancies notified to REB/Geotechnical survey information provided by others.
  - All materials to bear the relevant BS/EN mark and comply fully with the specifications. All concrete & concrete products must use sulphate resistant cement (unless the site from soils and groundwater will not occur)
  - All opening notices etc. as required under Highways acts etc. are to be obtained prior to commencement of works. Approved by L.A. WBC or relevant Water Authority as appropriate.
- C.M.A. REGULATIONS 2015**
- In line with the above regulations we are obliged to ensure that all excavations are carried out in accordance with the relevant regulations. All design work has been carried out with Health and Safety aspects given full consideration. Where possible risks have been eliminated from the design. It is not possible to remove all the risks from the design. We would also respectfully remind the Client of his obligations to take all reasonable steps in ensuring that only competent Contractors who have a valid licence should provide satisfactory responses of tender stage as to the manner in which they will deal with the elements of risk involved in this type of work and in particular those highlighted by REBA below:-
- Support / treatment for ALL excavation work.
  - Guarding / edging of excavations to prevent pedestrians and vehicles falling into excavation.
  - Sounding of excavations outside working hours to neighbouring residential roads or structures.
  - Confined space operations.
  - Dealing with existing services.
  - Traffic management on existing highways.
  - Procedure to be followed in event of accident or emergency.
  - Method of working where contaminated ground is present on site.
  - Confirmation will be required that all operatives are adequately trained, copies of relevant training certificates to be supplied.
- The above list is by no means exhaustive but it does highlight operations that present a risk to the general public and the general public for information on any item please contact REBA.

Rev	REVISION	DATE	BY	CHKD	DATE
E	UPDATED TO PLANNING P23		RF	8/2/23	
D	UPDATED TO PLANNING P22		GMH	9/18	
C	DISCHARGE LIMIT REVISED TO 10L		GMH	14/17	
B	FIGURE OF 26 L/SEC.		GMH	3/17	
A	NOTES REVISED IN RELATION TO A REDUCED DISCHARGE LIMIT		GMH	1/17	
	REV	REVISION	DATE	BY	CHKD

**worksaparc consultant SSIP**  
www.worksaparc.com

**REFA CONSULTING ENGINEERS**  
CIVIL • STRUCTURAL  
GEOTECHNICAL • ENVIRONMENTAL

45 Bishopscourt Terrace  
Wotton, Leicestershire  
Leicestershire LE12 7JH  
Tel: (01942) 868020  
Fax: (01942) 230816

**Client:** BELLWAY HOMES (MCR) LTD.

**Job title:** BROADWAY HYDE MANCHESTER DRAINAGE FEASIBILITY PLAN

**Drawing title:** DRAINAGE FEASIBILITY PLAN

**Date:** 24.10.17  
**Scale:** 1/500  
**DRAWING NO:** 17140/02/1  
**Rev:** E  
**Drawn by:** GMH

PLEASE NOTE THAT THIS DRAWING IS ISSUED FOR INFORMATION/TENDER PURPOSES ONLY. UNTIL TECHNICAL APPROVAL HAS BEEN GRANTED ANY WORK UNDER TAKEN PRIOR TO TECHNICAL APPROVAL BEING GRANTED IS AT THE CLIENTS RISK.