

1. All work to be in accordance with the current Building Regulations.
2. Only written dimensions to be used.
3. Discrepancies and abnormalities to be reported.
4. If in doubt Ask.

General notes :

All work to be in accordance with the current building regulations.

Drains passing through buildings to be protected with lintel over.

No building to take place within 3.000M of an adoptable sewer.

Minimum pipe size for adoptable purposes to be 150mm with flexible mechanical joints.

Highway construction to be in accordance with Barnsley MBC Highways Department.

Private drainage to be in 100mm dia. plastic pipe with granular bed & surround to the satisfaction of the building control officer. Minimum gradient 1/80.

Road gullies to be in accordance with road construction details drawing.

Levels marked on dwellings refer to ground floor level.

----- foul drain

----- surface water drain

Where adoptable pipes have concrete slab protection, all joints to be provided with 18mm thick flexible filler.

Private drainage connections not direct to a manhole are to be made via a 45 degree junction and not saddles.

Maximum gradient of private driveways to be 1 in 10.

NOTE THAT ALL FENCING AND SCREEN WALLS/FENCING DETAILS TO BE AS DEFINED ON PLANNING DRAWING

Sewers must have 5m minimum clearance from trees and hedges, otherwise they must be provided with concrete slab protection over.

All filled ground to be filled and consolidated under supervision and to the satisfaction of Yorkshire Water prior to any sewer works being carried out.

Sewers to be laid in Class S bedding (150mm granular bed and surround). Where depth of cover to top of sewer is less than 1.20m in highways and verges, then 150mm concrete slab protection is to be provided.

Lengths that require such protection are identified on Long Sections drawing.

Note that Yorkshire Water policy is not to accept Type C brick manholes and 1050 dia concrete manhole rings. It is preferred to use Type B1 1200 or 1500mm dia concrete manholes with the opening sited centrally over the channel where depth to pipe soffit is between 1.0-1.5m.

Main sewers to be laid in accordance with Sewers for Adoption (6th edition) and to the satisfaction of Yorkshire Water and be kitemarked.

All adoptable sewers to be in Class 120 Concrete or 40KN/m (1500)/45KN/m (2254) with class S bedding as specified on Long Sections drawing.

Adoptable manholes to be concrete ring type size as specified in schedules. Manhole covers must/shall have a clear opening of 600mm and shall be Class D400 to BS EN 124. Covers in highways to have 150mm deep frames.

All filled ground to be filled and consolidated under supervision and to the satisfaction of Yorkshire Water prior to any sewer works being carried out.

The adoptable sewers should be a minimum of 1m and manholes 0.5m from kerb faces and service margins.

Sewers must have 5m minimum clearance from trees and hedges, otherwise they must be provided with concrete slab protection.

The chamber size of manholes with more than one connection in them may need to be increased by an increment to accommodate connections and bends.

Yorkshire Water is not obliged to accept filter drain/land drainage run-off into public sewers or adoptable drainage systems (directly or indirectly). An alternative method of disposal of the land drainage run-off will be required to be agreed with the Local Drainage Section.

Cover slabs must carry the BSI kitemark or will be rejected by the Yorkshire Water inspector. Where the clear opening of the kitemarked product is different to that of the cover and frame, a load bearing slab should be fitted above the cover slab to bring the size down to 600mm x 600mm for the Yorkshire Water specified cover size. Please refer to Concrete Pipe Systems Association (CPSA) Technical Bulletin' issued Autumn 2004 for kitemarked cover slab opening sizes.

Sulphate resistance cement (C20-DC2) and precast concrete products must be used or a laboratory report provided proving that such precautions are not necessary.

NOTE THAT ALL TREES LOCATED CLOSE TO THE ADOPTABLE ESTATE ROADS

TO BE PROVIDED WITH ROOT BARRIER PROTECTION (BY MESSRS GREENLEAF OR SIMILAR)

LATERAL MANHOLE SCHEDULE										
REF	EASTING	NORTHING	APP COVER LEVEL	INVERT LEVEL	DEPTH	SIZE	TYPE	PIPE SIZE	PIPE GRADIENT	BACKDROP LEVEL
FOUL WATER										
PF1	445805.320	402548.137	24.85	23.25	1.60	500	PPIC	150	1/28	
PF2	445815.666	402548.143	24.60	22.88	1.72	500	PPIC	150	1/90	
PF3	445819.405	402475.583	24.95	23.35	1.60	500	PPIC	150	1/10	
PF4	445828.666	402474.860	24.70	22.72	1.98	500	PPIC	150	1/83	
PF5	445809.516	402513.565	24.80	22.45	2.35	1200	CONC	150	1/10	23.25
PF6	445860.320	402508.979	24.55	22.10	2.45	1200	CONC	150	1/10	23.00
PF7	445864.412	402521.234	24.75	21.81	2.94	1200	CONC	150	1/10	23.10
PF8	445895.894	402512.410	24.55	21.89	2.66	1200	CONC	150	1/10	23.30
PF9	445896.383	402525.271	24.60	21.60	3.00	1200	CONC	150	1/10	23.10
PF10	445920.002	402525.918	24.20	21.90	2.30	1200	CONC	150	1/10	
PF11	445913.628	402463.323	24.10	21.28	2.82	1200	CONC	150	1/10	22.05
SURFACE WATER										
PS1	445833.592	402568.661	24.22	22.96	1.26	500	PPIC	150	1/95	
PS2	445805.161	402549.558	24.90	22.95	1.95	500	PPIC	150	1/10	
PS3	445817.743	402530.749	24.83	22.75	2.08	1200	CONC	150	1/10	
PS4	445833.315	402462.131	24.60	23.35	1.25	500	PPIC	150	1/82	
PS5	445819.239	402479.950	24.90	23.50	1.90	500	PPIC	150	1/10	
PS6	445825.089	402495.875	24.70	23.30	1.40	500	PPIC	150	1/10	
PS6A	445823.268	402505.347	24.70	23.35	1.35	500	PPIC	150	1/10	
PS7	445810.707	402511.559	24.82	23.50	1.32	500	PPIC	150	1/10	
PS8	445865.253	402509.673	24.60	22.75	1.85	500	PPIC	150	1/10	
PS9	445866.173	402520.648	24.80	22.67	2.13	1200	CONC	150	1/10	23.50
PS10	445894.090	402512.919	24.60	22.50	2.10	1200	CONC	150	1/10	23.40
PS11	445893.429	402524.347	24.70	22.50	2.20	1200	CONC	150	1/10	23.60
PS12	445920.290	402544.094	24.00	23.00	1.00	500	PPIC	150	1/12	
PS13	445920.205	402528.375	24.30	22.88	1.42	500	PPIC	150	1/10	
PS14	445913.909	402464.362	24.10	22.10	2.00	500	PPIC	150	1/10	

K. 15/04/13 root barrier note made more prominent (LC/BC)
J. 06/08/12 minor off site sewer amendments (H7/YW)
H. 21/07/12 off site sewer route amended/BMBC Highways comments added
G. 24/04/12 road 5 amended (LC/BMBC)
F. 03/01/12 off site SW manhole refs amended to suit EDS CCTV survey (PS/GH)
E. 23/12/11 YW S102 comments/layout revised to Rev F.
D. 10/11/11 lateral manhole pipe gradients added (H7/YW)
C. 03/11/11 off site sw sewer amended/YW comments added
B. 22/10/11 Rev D amendments & YW comments incorporated
A. 28/09/11 Client comments incorporated (PS)
Revision:

James Eaton Design

Design Consultant

Development • Highways • Drainage

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Client:

Gleeson Homes

Site:

Lowfield Road,

Bolton on Dearne.

Title:

Engineering Layout

Date:

Scales:

Drawing No.

Sept 2011

1/500

11/549/5621K

RISK ASSESSMENT : SIGNIFICANT RISKS THAT CANNOT BE DESIGNED OUT		
RISK	LEVEL OF RISK (VW)	SUGGESTED ACTION
DEEP EXCAVATIONS ASSOCIATED WITH NEW DRAINAGE WORKS.	HIGH	ENSURE ALL EXCAVATIONS HAVE ADEQUATE TRENCH SUPPORTS.
HANDLING LARGE DIAMETER MANHOLE RINGS AND CONCRETE PIPES.	HIGH	USE CORRECT LIFTING EQUIPMENT AND ENSURE OPERATIVES WEAR APPROPRIATE PROTECTIVE CLOTHING/HARD HATS.
CONTACT WITH SEWAGE.	MED	OPERATIVES TO USE CORRECT BREATHING EQUIPMENT.
NOISE.	MED	OPERATIVES TO USE CORRECT EAR PROTECTION.
DRAINAGE EXCAVATIONS ADJACENT EXISTING BOUNDARY STRUCTURES.	HIGH	ENSURE CORRECT SUPPORTS ARE PROVIDED TO TRENCHES AND BUILDINGS WHERE REQUIRED.
EXCAVATION IN PUBLIC HIGHWAY.	HIGH	ENSURE CORRECT USE OF TRENCH SUPPORTS IN EXCAVATION AND SCREEN BARRIERS TO PROTECT MEMBERS OF THE PUBLIC.
MAINTAIN ACCESS TO ADJACENT PROPERTIES AND OCCUPIERS.	HIGH	ENSURE WORKS ARE PROTECTED WITH BARRIERS AND SIGNS TO GUIDE THE PUBLIC AWAY FROM THE WORKS.
IT IS ASSUMED THAT WORKS ASSOCIATED WITH THIS DESIGN WILL BE UNDERTAKEN BY A PERSON OR PERSONS WHO ARE COMPETENT AND HAVE THE REQUIRED LEVEL OF EXPERIENCE AND EXPERTISE		