

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 adoptable sewer works and material to be in accordance with Sewers for Adoption 6th Edition, the relevant British/European and Yorkshire Water's Standards/Requirements/Addendum to the Mechanical and Electrical Specification and be kitemarked.
- 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 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 WALLING/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. Bedding and backfill material to conform to the requirement of Water Industry Specification 4-08-02 (Table A2).

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 (2250) 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 (please also refer to Figure 2.3 on page 33 in Sewers for Adoption (6th Edition) for restrictions on tree planting adjacent to sewers).

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 with regard to the disposal of the filter drain/land drainage run off.

Cover slabs must carry the BS 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)

PHASE 2 LATERAL MANHOLE SCHEDULE									
REF	EASTING	NORTHING	APP COVER LEVEL	INVERT LEVEL	DEPTH	SIZE	TYPE	PIPE SIZE	BACKDROP LEVEL
SURFACE WATER									
PS31	446689.496	403639.306	21.50	19.65	1.85	500	PPIC	150	
PS32	446686.746	403609.722	21.15	19.43	1.72	500	PPIC	150	
PS33	446657.341	403595.837	20.75	19.30	1.45	500	PPIC	150	
PS34	446657.295	403586.066	20.70	19.30	1.40	500	PPIC	150	
PS35	446619.472	403607.663	20.50	19.05	1.45	500	PPIC	150	
PS36	446651.971	403664.423	21.00	19.55	1.45	500	PPIC	150	
PS37	446646.188	403655.963	20.80	19.35	1.45	500	PPIC	150	
PS38	446617.620	403662.654	21.10	19.70	1.40	500	PPIC	150	
PS39	446610.889	403639.381	20.65	19.30	1.35	500	PPIC	150	
PS40	446620.347	403639.369	20.78	19.30	1.48	500	PPIC	150	
PS41	446599.008	403583.248	19.80	18.80	1.00	500	PPIC	150	
PS42	446605.533	403579.451	19.80	18.80	1.00	500	PPIC	150	
FOUL WATER									
PF18	446682.423	403591.059	21.00	18.10	1.90	900	CONC	150	
PF19	446674.137	403604.033	21.00	18.10	1.90	900	CONC	150	
PF20	446705.013	403636.704	21.40	17.97	3.43	900	CONC	150	19.47
PF21	446699.547	403650.489	21.40	17.40	4.00	900	CONC	150	
LATERAL MANHOLE DATA SUBJECT TO FINAL CONFIRMATION ON COMPLETION OF DOMESTIC DRAINAGE AND EXTERNAL WORKS									



RISK	LEVEL OF RISK (H/M)	SUGGESTED ACTION
RISK ASSESSMENT - SIGNIFICANT RISKS THAT CANNOT BE DESIGNED OUT		
DEEP EXCAVATIONS ASSOCIATED WITH NEW DRAINAGE WORKS.	HIGH	ENSURE ALL EXCAVATIONS HAVE ADEQUATE TRENCH SUPPORTS.
HANDLING LARGE DIAMETER MANHOLE RINGS AND 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 EXISTING 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		

PRIVATE CARRIER FOUL MANHOLE SCHEDULE									
REF	EASTING	NORTHING	APP COVER LEVEL	INVERT LEVEL	DEPTH	SIZE	TYPE	PIPE SIZE	
CF1	446579.214	403583.205	19.50	18.800	0.700	900	CONC	225	
CF2	446590.921	403628.146	20.00	18.535	1.465	900	CONC	225	
CF3	446602.629	403673.088	21.00	18.270	2.730	900	CONC	225	
CF4	446618.734	403665.789	21.15	18.175	2.975	900	CONC	225	
CF5	446630.673	403704.076	21.85	17.962	3.888	900	CONC	225	
CF6	446647.155	403700.127	21.65	17.865	3.785	900	CONC	225	
CF7	446667.163	403677.069	21.20	17.691	3.509	900	CONC	225	
CF8	446679.318	403663.062	20.90	17.598	3.302	900	CONC	225	
CF9	446688.122	403646.091	21.30	17.489	3.811	900	CONC	225	
CF10	446695.365	403643.119	21.60	17.445	4.155	900	CONC	225	
CF11	446622.580	403576.235	19.70	18.850	0.850	500	PPIC	150	
CF12	446659.276	403565.748	20.50	18.544	1.956	500	PPIC	150	
CF13	446664.931	403565.522	20.60	18.498	2.102	900	CONC	150	
CF14	446665.866	403584.442	20.80	18.346	2.454	900	CONC	150	
CF15	446680.109	403583.990	21.10	18.247	2.853	900	CONC	150	

A. 21/04/16 private foul carrier drains & schedule added
Revision:

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A1

Client:
Gleeson Homes

Site:
**Barnburgh Lane,
 Goldthorpe Phase 2.**

Title:
Engineering Layout

Date: Apr 2016 Scales: 1/500 Drawing No. 16/660/7736A