



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 steel 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 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.
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 400N/m (150N/45N/m (225N) 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.
Reference should be made to Fig 2.3 on Page 33 of Sewers for Adoption (6th Edition) for restrictions on planting near 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.
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)

LATERAL MANHOLE SCHEDULE									
REF	EASTING	NORTHING	APP COVER LEVEL	BACKDOP LEVEL	INVERT LEVEL	DEPTH	SIZE	TYPE	PIPE SIZE
SURFACE WATER									
PS1	423992.615	402774.674	261.08		259.75	1.33	500	PPIC	150
PS2	424021.918	402804.212	258.75		257.25	1.50	500	PPIC	150
PS3	424031.140	402793.905	258.75		257.00	1.75	500	PPIC	150
PS4	424049.119	402830.606	256.15		254.56	1.59	500	PPIC	150
PS5	424073.080	402816.166	255.80		253.22	2.58	900	CONC	150
PS6	424081.133	402775.345	257.05	255.65	254.67	2.38	900	CONC	150
PS7	424091.528	402781.934	256.95		254.00	2.95	900	CONC	150
PS8	424111.378	402739.020	257.95		254.20	3.75	900	CONC	150
PS9	424070.183	402718.730	259.50		258.00	1.50	500	PPIC	150
PS10	424097.792	402732.384	258.30	256.44	254.94	3.36	900	CONC	150
PS11	424120.866	402703.479	257.67	255.96	254.46	3.21	900	CONC	150
PS12	424154.639	402681.533	256.35		253.85	2.50	900	CONC	150
PS13	424134.492	402645.657	257.50		256.10	1.40	500	PPIC	150
PS14	424140.229	402634.033	257.45		255.95	1.50	500	PPIC	150
PS15	424145.247	402657.676	256.45		255.00	1.45	500	PPIC	150
PS16	424154.542	402646.344	254.80		253.50	1.30	500	PPIC	150
PS17	424177.329	402632.320	255.25		253.28	1.97	500	PPIC	150
PS18	424213.412	402603.348	253.65		252.25	1.40	500	PPIC	150
PS19	424197.987	402588.513	255.05		252.50	2.55	900	CONC	150
PS20	423965.081	402755.058	262.30		260.97	1.33	900	CONC	150
PS21	424005.999	402730.832	262.22		260.50	1.72	500	PPIC	150
PS22	423997.745	402722.087	262.40		260.75	1.65	500	PPIC	150
PS23	424025.883	402711.170	261.75		260.35	1.40	500	PPIC	150
PS24	424038.201	402681.555	261.57		260.37	1.20	450	PPIC	150
PS25	424101.037	402626.951	259.32		258.12	1.20	450	PPIC	150
PS26	424121.159	402600.592	259.38		258.18	1.20	450	PPIC	150
PS27	424147.165	402587.862	259.10		257.15	1.95	500	PPIC	150
PS28	424148.839	402565.642	258.25		256.73	1.52	500	PPIC	150
FOUL WATER									
PF1	424002.227	402784.670	260.40		258.65	1.75	500	PPIC	150
PF2	424050.180	402832.428	256.00		254.00	2.00	500	PPIC	150
PF3	424074.760	402815.455	255.82		252.60	3.22	900	CONC	150
PF4	424079.347	402779.258	256.91	254.97	253.47	3.44	900	CONC	150
PF5	424110.587	402742.011	257.80	255.79	254.29	3.51	800	CONC	150
PF6	424083.594	402726.965	258.90	257.05	255.85	3.05	900	CONC	150
PF7	424145.393	402672.507	256.50	255.29	253.79	2.71	900	CONC	150
PF8	424138.655	402648.966	257.12		255.67	1.45	500	PPIC	150
PF9	424147.193	402637.750	257.06		255.65	1.41	500	PPIC	150
PF10	424171.861	402658.845	255.72	253.88	252.38	3.34	900	CONC	150
PF11	424214.950	402602.148	253.60		251.60	2.00	500	PPIC	150
PF12	424203.087	402593.965	254.12		251.50	2.62	900	CONC	150
PF13	423995.599	402723.385	262.50		260.55	1.95	500	PPIC	150
PF14	424004.054	402732.783	262.24		260.80	1.44	24	PPIC	150
PF15	424038.523	402677.434	261.86		260.07	1.79	500	PPIC	150
PF16	424102.317	402624.163	259.25		257.75	1.50	500	PPIC	150
PF17	424148.747	402563.410	256.30		256.00	2.30	900	CONC	150

RISK ASSESSMENT		
SIGNIFICANT RISKS THAT CANNOT BE REDUCED OUT		
RISK	LEVEL OF RISK (V/M)	SUGGESTED ACTION
DEEP EXCAVATIONS ASSOCIATED WITH NEW DRAINAGE WORKS	HIGH	ENSURE ALL EXCAVATING HAS ADEQUATE TRENCH SUPPORTS.
HAZARDOUS LAME DIAMETER PIPES AND MANHOLE BRICKS	HIGH	USE CORRECT LITING DURING AND DURING OPERATIONS NEAR APPROPRIATE PROTECTIVE CLOSING/HARD WAYS.
CONTACT WITH SEWER	MED	OPERATIONS TO USE CORRECT BREATHING EQUIPMENT.
NOISE	MED	OPERATIONS TO USE CORRECT EAR PROTECTION.
DRAINAGE EXCAVATIONS ADJACENT EXISTING BOUNDARY STRUCTURES.	HIGH	ENSURE CORRECT SUPPORTS ARE PROVIDED TO TRENCHES AND BUILDING WORK REQUIRED.
EXCAVATION IN AND ADJACENT TO PUBLIC HIGHWAY.	HIGH	ENSURE CORRECT USE OF TRENCH SUPPORTS IN EXCAVATION AND SLOPE BARRIERS TO PROTECT ROADWAY OF THE PUBLIC.
MAINTAIN ACCESS TO ADJACENT PROPERTIES AND OCCUPANTS.	HIGH	ENSURE WORKERS ARE PROTECTED WITH BARRIERS AND SIGNS TO GUIDE THE PUBLIC AWAY FROM THE WORKS.
HAZARDOUS AND DEEP EXCAVATION FOR 9M STORAGE TANK	HIGH	USE CORRECT LITING DURING AND DURING OPERATIONS NEAR APPROPRIATE PROTECTIVE CLOSING/HARD WAYS. ENSURE CORRECT SUPPORTS ARE PROVIDED TO TRENCHES AND BUILDINGS WHERE REQUIRED.
IF IT IS ASSUMED THAT WORK ASSOCIATED WITH THIS DESIGN WILL BE UNDERTAKEN BY A PERSON OR PERSONS WHO ARE COMPETENT AND HAVE THE REQUIRED LEVEL OF EXPERIENCE AND EXPERTISE		

E. 08/07/15 Plots 64-66, 78 amended (MB/PH)
D. 21/02/15 storage structure amended to Carlow Tank (MB/PH)
C. 11/01/15 amended to suit BMSD Highways, YW & Persimmon Homes requirements
B. 27/10/14 amended to suit Rev M Planning Layout
A. 22/04/14 amendments to suit off site sewers/SW outfall
Revision.

James Eaton Design Ltd
Design Consultant
Development • Highways • Drainage
Stoneycroft, Brackenhill, Aisworth,
Pontefract, West Yorkshire WF7 7RG
Tel. 01977 618626 Fax 01977 625114
e-mail james@jameseatondesign.co.uk

AO

Client
Persimmon Homes
Site
Hartcliffe Road,
Penistone.
Title
Engineering Layout

Date
Feb 2014
Scales
1/500
Drawing No.
14/598/6630E