

**NOTES**

- GENERAL NOTES**
1. ALL MATERIALS AND WORKMANSHIP IS TO COMPLY WITH JPG CONSULTANTS STANDARD SPECIFICATION & ALL RELEVANT BRITISH & EUROPEAN STANDARDS.
  2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS, THE CURRENT BUILDING, THE EXISTING ARCHITECTURAL & E.C. CONSULTANTS AND JPG CONSULTANTS DRAWINGS.
  3. ANY DISCREPANCIES SHOULD BE REPORTED TO THE ENGINEER IMMEDIATELY SO THAT CLARIFICATION CAN BE SOUGHT PRIOR TO COMMENCEMENT OF WORKS.

**DRAINAGE NOTES**

1. ALL BUILDING DRAINAGE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH BS EN 752:2008 DRAINAGE AND SEWER SYSTEMS OUTSIDE BUILDINGS, THE CURRENT BUILDING REGULATIONS AND THE LOCAL AUTHORITY BUILDING CONTROL SPECIFICATIONS AND REQUIREMENTS.
2. ANY DRAINAGE TO BE PUT FORWARD FOR ADOPTION EITHER WITHIN THE SITE OR OUTSIDE SHALL BE CONSTRUCTED TO SPECIFICS FOR ADOPTION LATEST EDITION AND ANY SPECIFIC REQUIREMENTS OF THE ADOPTING SEWERAGE WATER AUTHORITY.
3. THE LOCATION, SIZE AND DEPTH OF ALL EXISTING DRAINAGEWORKS AND SERVICES SHALL BE ESTABLISHED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF WORKS ON SITE. ANY DISCREPANCIES FROM THE INFORMATION INDICATED ON THESE DRAWINGS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
4. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER SHOULD ANY EXISTING LIVE DRAINAGE BE FOUND WITHIN THE SITE BOUNDARIES.
5. ALL EXISTING DRAINAGE WITHIN THE SITE NOT REQUIRED FOR THE NEW DEVELOPMENT SHALL BE ABANDONED. DRAINS AND SEWERS LESS THAN 1.500M DEEP WHICH ARE IN OPEN GROUND SHOULD AS FAR AS PRACTICABLE BE FULLY REGRADED. ALL OTHER PIPES SHOULD BE SEALED AT BOTH ENDS AND AT ANY POINT OF CONNECTION AND BE GRADED TO PREVENT THAT RATS CANNOT GAIN ACCESS. LARGER PIPES 2250 OR ABOVE SHOULD BE GROUT FILLED TO PREVENT SUBSIDENCE OR DAMAGE TO BUILDINGS OR SERVICES IN THE EVENT OF COLLAPSE.
6. THE CONTRACTOR SHALL ALLOW FOR THE PROTECTION, TEMPORARY AND PERMANENT SUPPORT AND DIVERSION WORKS AS NECESSARY TO ALL EXISTING SERVICES TO THE SATISFACTION OF THE UTILITY COMPANIES.
7. THE CONTRACTOR SHALL ALLOW FOR DEALING WITH SURFACE WATER RUN OFF INTO EXCAVATIONS AND FROM GROUNDWATER BY MEANS OF SHIMS, PUMPING AND DE WATERING AS APPROPRIATE. IN ORDER TO KEEP THE EXCAVATION AS REASONABLY DRY AS POSSIBLE DURING THE CONSTRUCTION OF THE WORKS.
8. THE CONTRACTOR SHALL TAKE ALL NECESSARY SAFETY PRECAUTIONS IN LINE WITH CURRENT LEGISLATION WHEN WORKING IN NEAR CONFINED SPACES, DEEP EXCAVATIONS AND MACHINERY.
9. THE CONTRACTOR SHALL ALLOW FOR OBTAINING ALL APPROVALS FROM THE RELEVANT AUTHORITIES WHEN WORKING IN THE PUBLIC HIGHWAY AND ON THE SEWERAGE SYSTEM.
10. THE CONTRACTOR SHALL SUABLY PROTECT PEDESTRIANS AND VEHICLES FROM WORKING AREAS.
11. ALL MANHOLE CHAMBER COVER LEVELS ARE APPROXIMATE AND SHALL BE ADJUSTED ON SITE TO SUIT THE PROPOSED FINISHED LEVELS.
12. ALL PIPES SHALL BE LAD WITH LEVEL SOFFITS AND ALL MANHOLES/CHAMBER COVER LEVELS SHALL BE SHOWN FOR THE OUT GOING PIPE LINO. ON THE DRAWING (NOTE THAT ALL PIPE GRADIENTS INDICATED ON THE DRAWING ARE APPROXIMATE ONLY).
13. ALL PIPE CONNECTION FROM DRAINAGE CHANNELS AND GULLIES SHALL BE 1500 PIPES AT A MINIMUM GRADIENT OF 1:100 WITH CLASS 2 BEDDING LINO. ON THE DRAWING.
14. ALL PIPE CONNECTIONS FROM RWPS TO BE 1000 AT 1:60 MIN. AND ALL PIPE CONNECTIONS FROM RWPS TO FIRST CHAMBER SHALL BE 1000 AT 1:40 MIN. WITH CLASS 3 BEDDING BENEATH THE BUILDING AND CLASS 2 UNDER EXTERNALS WHERE COVER IS LESS THAN 1.200 LINO. ON THE DRAWING. LOCATION OF RWPS AND RWCS TO BE CONFIRMED BY THE ARCHITECT AND ARE SHOWN INDICATIVELY ONLY.
15. ALL SYNPHONIC RWP SYSTEMS TO BE DESIGNED BY OTHERS. PIPEWORK FROM DOWN PIPE TO FIRST MANHOLE TO BE SIZED/DESIGNED BY SYNPHONIC SYSTEM DESIGNER. THE FIRST MANHOLE TO HAVE AN OPEN GRATE COVER SAFT GOVERN WATERWAY 2000 - 2400 OR SIMILAR APPROVED.
16. SUABLY SIZED PETROL INTERCEPTORS MUST COMPLY WITH THE REQUIREMENTS OUTLINE IN PP03 THESE INCLUDE SILT STORAGE CAPACITY AND HIGH LEVEL HYDROCARBON ALARM WIRRED BACK TO A MANNED OFFICE.
17. UPON COMPLETION OF THE DRAINAGE WORKS THE CONTRACTOR SHALL CLEAN ALL DRAIN RINGS BY JETTING AND REMOVE ALL DEBRIS FROM SITE. NO DEBRIS SHALL BE PERMITTED TO ENTER THE PUBLIC SEWER AND/OR WATERCOURSE SYSTEM. ONCE THE DRAINAGE SYSTEM HAS BEEN FULLY CLEANED OUT A CCTV CAMERA CONDITION SURVEY SHALL BE UNDERTAKEN TO ALL CONSTRUCTED DRAINAGE AND SEWER PIPES WITH THE FOOTAGE ISSUED TO THE ENGINEER FOR VIEW. THE AS BUILT INVERT AND COVER LEVELS SHALL BE RECORDED BY THE CONTRACTOR AND PASSED ON TO THE ENGINEER FOR REVIEW.

**LEGEND**

- PROPOSED SURFACE WATER PIPE
- PROPOSED SURFACE WATER MANHOLE
- PROPOSED FOUL WATER PIPE
- PROPOSED FOUL WATER MANHOLE
- EXISTING SURFACE WATER PIPE
- EXISTING SURFACE WATER MANHOLE
- EXISTING FOUL WATER PIPE
- EXISTING FOUL WATER MANHOLE
- PROPOSED DRAINAGE CHANNEL
- PROPOSED KERB DRAIN
- PROPOSED ROAD GULLY
- PROPOSED RAINWATER PIPE
- PROPOSED SYNPHONIC RAINWATER PIPE
- PROPOSED WASTE POINT CONNECTION

0m 25m 50m  
SCALE 1:1000

**PROPOSED FINISHED LEVELS FOR THE COMMERCIAL ZONE ARE TO BE CONFIRMED AS PART OF THE ON GOING PLOT DESIGN DEVELOPMENT EXERCISE AND WILL BE TAILORED TO SUIT THE AGREE PLOT LAYOUTS**

**LEVELS AND DETAILS OF THE EXISTING SEWER NETWORK ARE TO BE SURVEYED TO CONFIRM COVER AND INVERT LEVELS AND CONDITION OF THE RECEIVING SEWERS**

**DETAILED DESIGN OF THE OFF SITE FW DRAINAGE INFRASTRUCTURE ALL BY THE RESIDENTIAL DEVELOPER THIS INFRASTRUCTURE SHALL BE PUT FORWARD TO SUIT THE AGREE PLOT LAYOUTS VIA S104 OR OTHER AGREEMENTS**

REV	DESCRIPTION	DATE	CHK	BY
P02	UPDATED IN LINE WITH DESIGN TEAM PLANNING COMMENTS	10/10/23	CPH	JDM
P01	INITIAL ISSUE	12/06/23	CPH	JDM

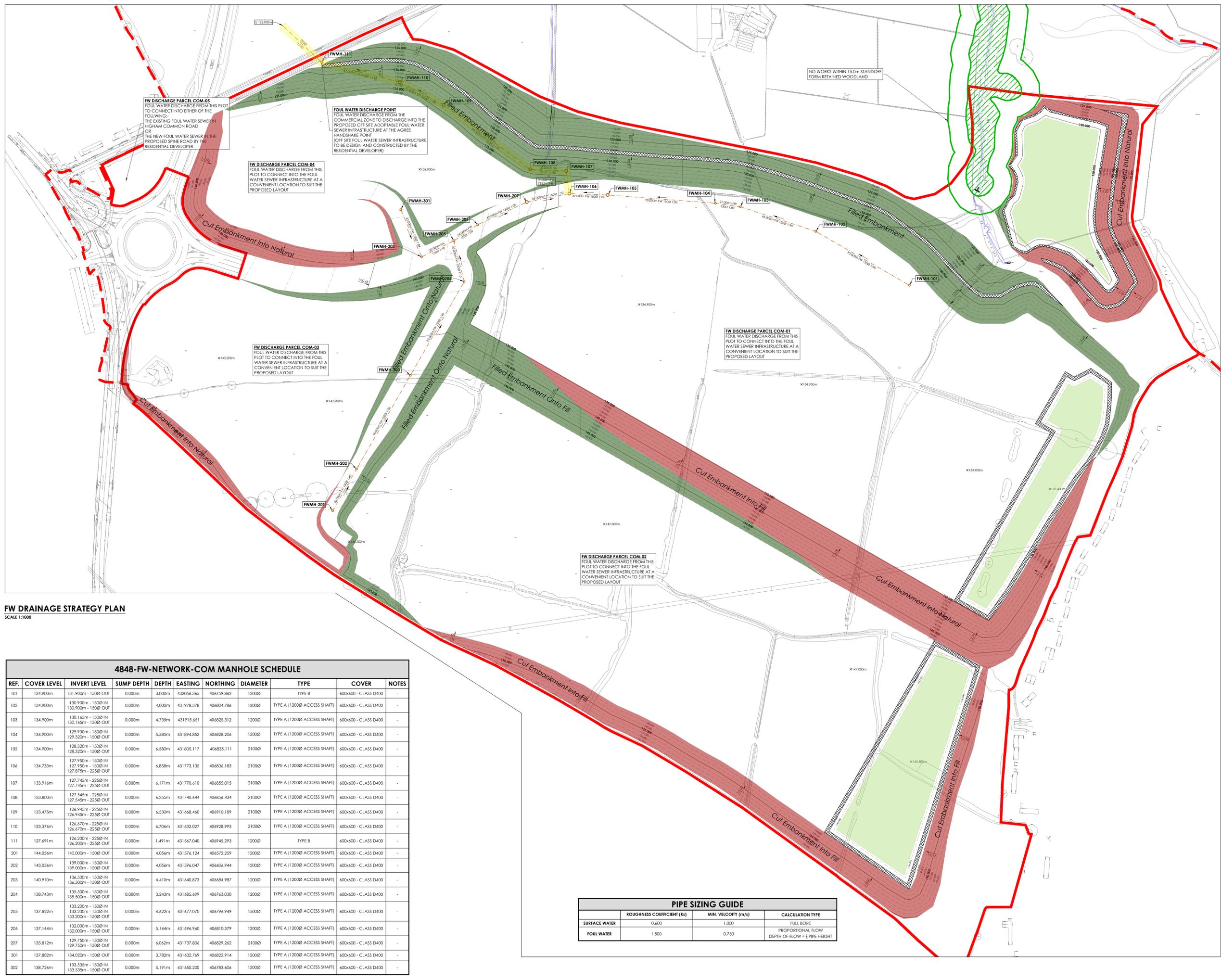
Project: **BARNSELY WEST**

Drawing Title: **FW DRAINAGE STRATEGY PLAN COMMERCIAL DEVELOPMENT ZONE**

**PLANNING**

**JPG**  
www.jpg.group  
t admin@jpg.group | t +44 (0)113 263 1155

4848-JPG-ZZ-ZZ-DR-D-1452 S4 P02



**FW DRAINAGE STRATEGY PLAN**  
SCALE 1:1000

**4848-FW-NETWORK-COM MANHOLE SCHEDULE**

REF.	COVER LEVEL	INVERT LEVEL	SUMP DEPTH	DEPTH	EASTING	NORTHING	DIAMETER	TYPE	COVER	NOTES
101	134.900m	131.900m - 1500 OUT	0.000m	3.000m	432056.365	406759.862	1200Ø	TYPE B	600x600 - CLASS D400	-
102	134.900m	130.900m - 1500 IN 130.900m - 1500 OUT	0.000m	4.000m	431978.378	406804.786	1200Ø	TYPE A (1200Ø ACCESS SHAFT)	600x600 - CLASS D400	-
103	134.900m	130.165m - 1500 IN 130.165m - 1500 OUT	0.000m	4.735m	431915.651	406825.312	1200Ø	TYPE A (1200Ø ACCESS SHAFT)	600x600 - CLASS D400	-
104	134.900m	129.930m - 1500 IN 129.930m - 1500 OUT	0.000m	5.580m	431894.852	406828.206	1200Ø	TYPE A (1200Ø ACCESS SHAFT)	600x600 - CLASS D400	-
105	134.900m	128.320m - 1500 IN 128.320m - 1500 OUT	0.000m	6.580m	431805.117	406835.111	2100Ø	TYPE A (1200Ø ACCESS SHAFT)	600x600 - CLASS D400	-
106	134.733m	127.950m - 1500 IN 127.950m - 1500 IN 127.875m - 2250 OUT	0.000m	6.858m	431773.135	406836.183	2100Ø	TYPE A (1200Ø ACCESS SHAFT)	600x600 - CLASS D400	-
107	133.916m	127.745m - 2250 IN 127.745m - 2250 OUT	0.000m	6.171m	431770.610	406855.015	2100Ø	TYPE A (1200Ø ACCESS SHAFT)	600x600 - CLASS D400	-
108	133.800m	127.545m - 2250 IN 127.545m - 2250 OUT	0.000m	6.255m	431740.644	406856.434	2100Ø	TYPE A (1200Ø ACCESS SHAFT)	600x600 - CLASS D400	-
109	133.475m	126.945m - 2250 IN 126.945m - 2250 OUT	0.000m	6.530m	431668.460	406910.189	2100Ø	TYPE A (1200Ø ACCESS SHAFT)	600x600 - CLASS D400	-
110	133.376m	126.670m - 2250 IN 126.670m - 2250 OUT	0.000m	6.706m	431632.027	406928.993	2100Ø	TYPE A (1200Ø ACCESS SHAFT)	600x600 - CLASS D400	-
111	127.691m	126.200m - 2250 IN 126.200m - 2250 OUT	0.000m	1.491m	431567.040	406945.293	1200Ø	TYPE B	600x600 - CLASS D400	-
201	144.056m	140.000m - 1500 OUT	0.000m	4.056m	431576.124	406572.259	1200Ø	TYPE A (1200Ø ACCESS SHAFT)	600x600 - CLASS D400	-
202	143.056m	139.000m - 1500 IN 139.000m - 1500 OUT	0.000m	4.056m	431596.047	406606.944	1200Ø	TYPE A (1200Ø ACCESS SHAFT)	600x600 - CLASS D400	-
203	140.910m	136.500m - 1500 IN 136.500m - 1500 OUT	0.000m	4.410m	431640.873	406684.987	1200Ø	TYPE A (1200Ø ACCESS SHAFT)	600x600 - CLASS D400	-
204	138.743m	135.500m - 1500 IN 135.500m - 1500 OUT	0.000m	3.243m	431685.699	406763.030	1200Ø	TYPE A (1200Ø ACCESS SHAFT)	600x600 - CLASS D400	-
205	137.822m	133.200m - 1500 IN 133.200m - 1500 OUT	0.000m	4.622m	431677.070	406796.949	1500Ø	TYPE A (1200Ø ACCESS SHAFT)	600x600 - CLASS D400	-
206	137.144m	132.000m - 1500 IN 132.000m - 1500 OUT	0.000m	5.144m	431696.960	406810.379	1200Ø	TYPE A (1200Ø ACCESS SHAFT)	600x600 - CLASS D400	-
207	135.812m	129.750m - 1500 IN 129.750m - 1500 OUT	0.000m	6.062m	431737.806	406829.282	2100Ø	TYPE A (1200Ø ACCESS SHAFT)	600x600 - CLASS D400	-
301	137.802m	134.020m - 1500 OUT	0.000m	3.782m	431632.769	406822.914	1200Ø	TYPE A (1200Ø ACCESS SHAFT)	600x600 - CLASS D400	-
302	138.726m	133.535m - 1500 IN 133.535m - 1500 OUT	0.000m	5.191m	431650.200	406783.606	1200Ø	TYPE A (1200Ø ACCESS SHAFT)	600x600 - CLASS D400	-

**PIPE SIZING GUIDE**

	ROUGHNESS COEFFICIENT (ks)	MIN. VELOCITY (m/s)	CALCULATION TYPE
SURFACE WATER	0.600	1.000	FULL BORE
FOUL WATER	1.500	0.750	PROPORTIONAL FLOW DEPTH OF FLOW = PIPE HEIGHT