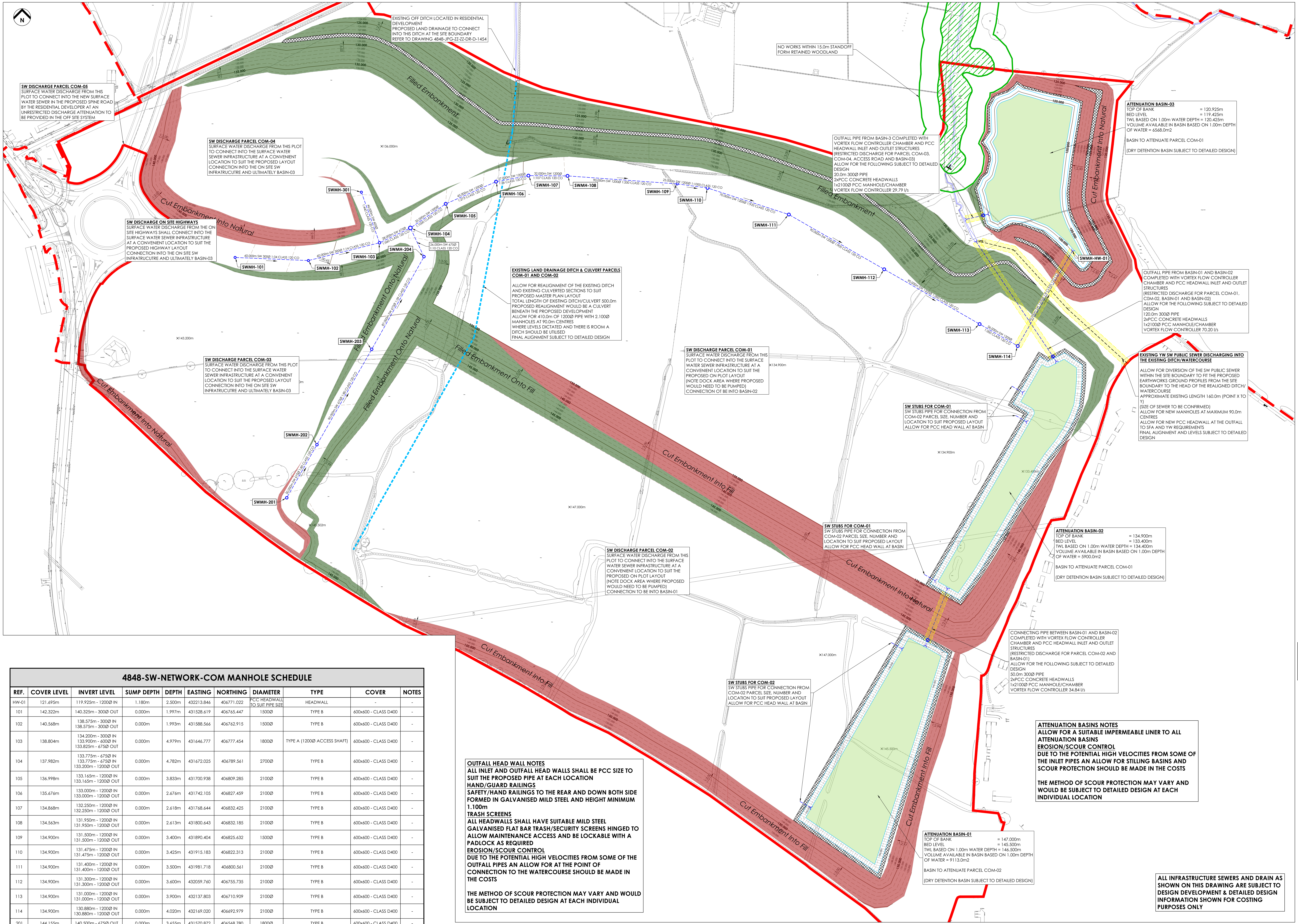

4848-SW-NETWORK-COM MANHOLE SCHEDULE

REF.	COVER LEVEL	INVERT LEVEL	SUMP DEPTH	DEPTH	EASTING	NORTHING	DIAMETER	TYPE	COVER	NOTES
HW-01	121.695m	119.925m - 1200Ø IN	1.180m	2.500m	432213.846	406771.022	PCC HEADWALL TO SUIT PIPE SIZE	HEADWALL	-	-
101	142.322m	140.325m - 300Ø OUT	0.000m	1.997m	431528.619	406765.447	1500Ø	TYPE B	600x600 - CLASS D400	-
102	140.568m	138.575m - 300Ø IN 138.575m - 300Ø OUT	0.000m	1.993m	431588.566	406762.915	1500Ø	TYPE B	600x600 - CLASS D400	-
103	138.804m	134.200m - 300Ø IN 133.900m - 600Ø IN 133.825m - 675Ø OUT	0.000m	4.979m	431646.777	406777.454	1800Ø	TYPE A (1200Ø ACCESS SHAFT)	600x600 - CLASS D400	-
104	137.982m	133.775m - 675Ø IN 133.775m - 675Ø IN 133.200m - 1200Ø OUT	0.000m	4.782m	431672.025	406789.561	2700Ø	TYPE B	600x600 - CLASS D400	-
105	136.998m	133.165m - 1200Ø IN 133.165m - 1200Ø OUT	0.000m	3.833m	431700.938	406809.285	2100Ø	TYPE B	600x600 - CLASS D400	-
106	135.676m	133.000m - 1200Ø IN 133.000m - 1200Ø OUT	0.000m	2.676m	431742.105	406827.459	2100Ø	TYPE B	600x600 - CLASS D400	-
107	134.868m	132.250m - 1200Ø IN 132.250m - 1200Ø OUT	0.000m	2.618m	431768.644	406832.425	2100Ø	TYPE B	600x600 - CLASS D400	-
108	134.563m	131.950m - 1200Ø IN 131.950m - 1200Ø OUT	0.000m	2.613m	431800.643	406832.185	2100Ø	TYPE B	600x600 - CLASS D400	-
109	134.900m	131.500m - 1200Ø IN 131.500m - 1200Ø OUT	0.000m	3.400m	431890.404	406825.632	1500Ø	TYPE B	600x600 - CLASS D400	-
110	134.900m	131.475m - 1200Ø IN 131.475m - 1200Ø OUT	0.000m	3.425m	431915.183	406822.313	2100Ø	TYPE B	600x600 - CLASS D400	-
111	134.900m	131.400m - 1200Ø IN 131.400m - 1200Ø OUT	0.000m	3.500m	431981.718	406800.561	2100Ø	TYPE B	600x600 - CLASS D400	-
112	134.900m	131.300m - 1200Ø IN 131.300m - 1200Ø OUT	0.000m	3.600m	432059.760	406755.735	2100Ø	TYPE B	600x600 - CLASS D400	-
113	134.900m	131.000m - 1200Ø IN 131.000m - 1200Ø OUT	0.000m	3.900m	432137.803	406710.909	2100Ø	TYPE B	600x600 - CLASS D400	-
114	134.900m	130.880m - 1200Ø IN 130.880m - 1200Ø OUT	0.000m	4.020m	432169.020	406692.979	2100Ø	TYPE B	600x600 - CLASS D400	-
201	144.155m	140.500m - 675Ø OUT	0.000m	3.655m	431570.872	406568.780	1800Ø	TYPE B	600x600 - CLASS D400	-
202	142.877m	139.875m - 675Ø IN 139.875m - 675Ø OUT	0.000m	3.002m	431595.595	406612.240	1800Ø	TYPE B	600x600 - CLASS D400	-
203	140.755m	138.750m - 675Ø IN 138.750m - 675Ø OUT	0.000m	2.005m	431640.415	406690.286	1800Ø	TYPE B	600x600 - CLASS D400	-
204	138.630m	136.500m - 675Ø IN 136.500m - 675Ø OUT	0.000m	2.130m	431683.155	406766.064	1800Ø	TYPE B	600x600 - CLASS D400	-
301	137.907m	134.000m - 600Ø OUT	0.000m	3.907m	431631.913	406818.867	1500Ø	TYPE A (1200Ø ACCESS SHAFT)	600x600 - CLASS D400	-

OUTFALL HEAD WALL NOTES
ALL INLET AND OUTFALL HEAD WALLS SHALL BE PCC SIZE TO SUIT THE PROPOSED PIPE AT EACH LOCATION
HAND/GUARD RAILINGS
SAFETY/HAND RAILINGS TO THE REAR AND DOWN BOTH SIDE FORMED IN GALVANISED MILD STEEL AND HEIGHT MINIMUM 1.100m
TRASH SCREENS
ALL HEADWALLS SHALL HAVE SUITABLE MILD STEEL GALVANISED FLAT BAR TRASH/SECURITY SCREENS HINGED TO ALLOW MAINTENANCE ACCESS AND BE LOCKABLE WITH A PADLOCK AS REQUIRED
EROSION/SCOUR CONTROL
DUE TO THE POTENTIAL HIGH VELOCITIES FROM SOME OF THE OUTFALL PIPES AN ALLOW FOR AT THE POINT OF CONNECTION TO THE WATERCOURSE SHOULD BE MADE IN THE COSTS

THE METHOD OF SCOUR PROTECTION MAY VARY AND WOULD BE SUBJECT TO DETAILED DESIGN AT EACH INDIVIDUAL LOCATION

ATTENUATION BASINS NOTES
ALLOW FOR A SUITABLE IMPERMEABLE LINER TO ALL ATTENUATION BASINS
EROSION/SCOUR CONTROL
DUE TO THE POTENTIAL HIGH VELOCITIES FROM SOME OF THE INLET PIPES AN ALLOW FOR STILLING BASINS AND SCOUR PROTECTION SHOULD BE MADE IN THE COSTS

THE METHOD OF SCOUR PROTECTION MAY VARY AND WOULD BE SUBJECT TO DETAILED DESIGN AT EACH INDIVIDUAL LOCATION

ALL INFRASTRUCTURE SEWERS AND DRAIN AS SHOWN ON THIS DRAWING ARE SUBJECT TO DESIGN DEVELOPMENT & DETAILED DESIGN INFORMATION SHOWN FOR COSTING PURPOSES ONLY

SW DRAINAGE STRATEGY PLAN
SCALE 1:1000

PIPE SIZING GUIDE

	ROUGHNESS COEFFICIENT (Ks)	MIN. VELCOITY (m/s)	CALCULATION TYPE
SURFACE WATER	0.600	1.000	FULL BORE
FOUL WATER	1.500	0.750	PROPORTIONAL FLOW DEPTH OF FLOW = 1/3 PIPE HEIGHT

DO NOT SCALE (A0)

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 RELEVANT ARCHITECTS, M & E 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 SEWERS FOR ADOPTION LATEST EDITION AND ANY SPECIFIC REQUIREMENTS OF THE ADOPTING SEWERAGE/WATER AUTHORITY.
3. THE LOCATION, SIZE AND DEPTH OF ALL EXISTING DRAINS/SEWERS 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 BOUNDARY SERVING ADJACENT PROPERTIES.
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 IS PRACTICABLE BE FULLY REMOVED ALL OTHER PIPES SHOULD BE SEALED AT BOTH ENDS AND AT ANY POINT OF CONNECTION, AND BE GROUT FILLED TO ENSURE THAT RATS CANNOT GAIN ACCESS. LARGER PIPES 225Ø 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 SUMPS, 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 SUITABLY 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 LAID WITH LEVEL SOFFITS AND ALL MANHOLE/INSPECTION CHAMBER INVERT LEVELS SHOWN ARE FOR THE OUT GOING PIPE UNO. 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 150Ø PIPES AT A MINIMUM GRADIENT OF 1:100 WITH CLASS Z BEDDING UNO. ON THE DRAWING.
14. ALL PIPE CONNECTIONS FROM RWP'S TO BE 100Ø AT 1:60 MIN. AND ALL PIPE CONNECTIONS FROM WPC'S TO FIRST CHAMBER SHALL BE 100Ø AT 1:40 MIN. WITH CLASS S BEDDING BENEATH THE BUILDING AND CLASS Z UNDER EXTERNALS WHERE COVER IS LESS THAN 1.20m UNO. ON THE DRAWING (LOCATION OF RWP'S AND WPC'S TO BE CONFIRMED BY THE ARCHITECT AND ARE SHOWN INDICATIVELY ONLY).
15. ALL SYPHONIC RWP SYSTEMS TO BE DESIGNED BY OTHERS. PIPEWORK FROM DOWN PIPE TO FIRST MANHOLE TO BE SIZED/ DESIGNED BY SYPHONIC SYSTEM DESIGNER. THE FIRST MANHOLE TO HAVE AN OPEN GRATE COVER SAINT GOBAIN WATERWAY 2000 - D400 OR SIMILAR APPROVED.
16. SUITABLY SIZED PETROL INTERCEPTORS MUST COMPLY WITH THE REQUIREMENTS OUTLINE IN PPG3 THESE INCLUDE SILT STORAGE CAPACITY AND HIGH LEVEL HYDROCARBON ALARM WIRED BACK TO A MANNED OFFICE.
17. UPON COMPLETION OF THE DRAINAGE WORKS THE CONTRACTOR SHALL CLEAN ALL DRAIN RUNS 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 KERBDRAIN
- RG PROPOSED ROAD GULLY
- RWP PROPOSED RAINWATER PIPE
- SRWP PROPOSED SYPHONIC RAINWATER PIPE
- WPC 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

REV	DESCRIPTION	DATE	CHK	BY
P02	UPDATED IN LINE WITH DESIGN TEAM PLANNING COMMENTS	05/10/23	CPH	JDM
P01	INITIAL ISSUE	14/07/23	CPH	JDM

Project
BARNSLEY WEST

Drawing Title
SW DRAINAGE STRATEGY PLAN
COMMERCIAL DEVELOPMENT ZONE

PLANNING

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