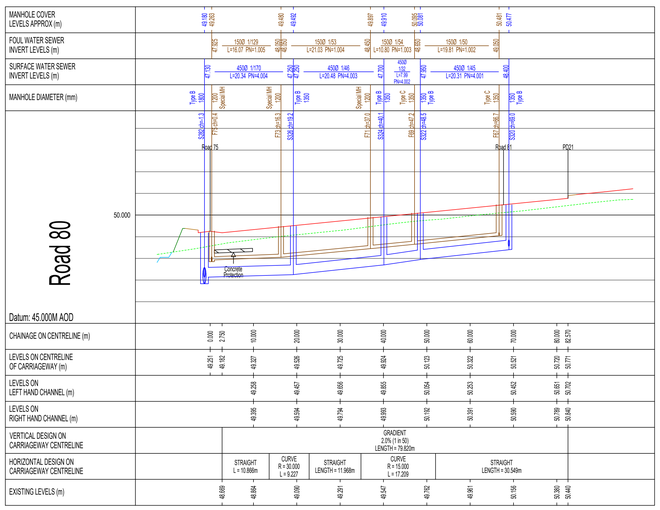

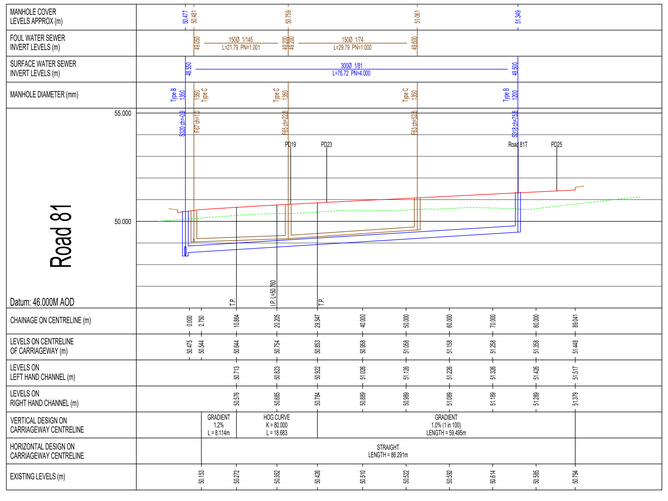

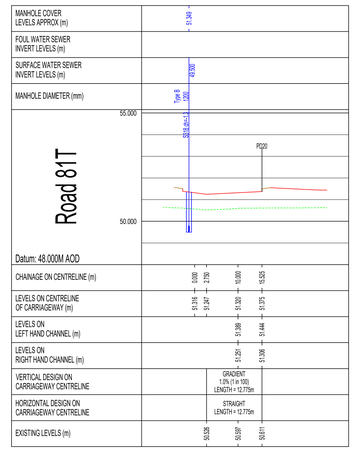

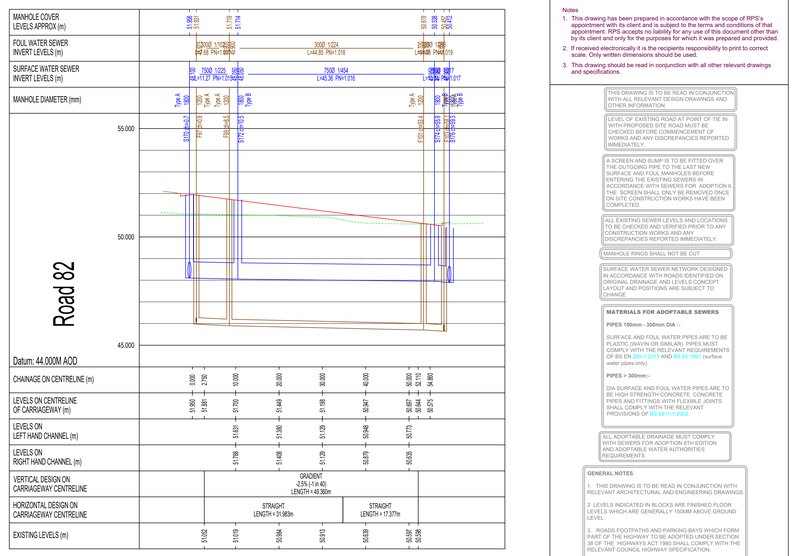

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Notes

1. This drawing has been prepared in accordance with the scope of RPS's appointment with its client and is subject to the terms and conditions of that appointment. RPS accepts no liability for any use of this document other than by its client and only for the purposes for which it was prepared and provided.
2. If received electronically it is the recipients responsibility to print to correct scale. Only written dimensions should be used.
3. This drawing should be read in conjunction with all other relevant drawings and specifications.

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT DESIGN DRAWINGS AND OTHER INFORMATION.

LEVEL OF EXISTING ROAD AT POINT OF TIE IN WITH PROPOSED SITE ROAD MUST BE CHECKED BEFORE COMMENCEMENT OF WORKS AND ANY DISCREPANCIES REPORTED IMMEDIATELY.

A SCREEN AND SUMP IS TO BE FITTED OVER THE OUTGOING PIPE TO THE LAST NEW SURFACE AND FOUL MANHOLES BEFORE ENTERING THE EXISTING SEWERS IN ACCORDANCE WITH SEWERS FOR ADOPTION 6 THE SCREEN SHALL ONLY BE REMOVED ONCE ON SITE CONSTRUCTION WORKS HAVE BEEN COMPLETED.

ALL EXISTING SEWER LEVELS AND LOCATIONS TO BE CHECKED AND VERIFIED PRIOR TO ANY CONSTRUCTION COMMENCING. DISCREPANCIES REPORTED IMMEDIATELY.

MANHOLE RINGS SHALL NOT BE CUT.

SURFACE WATER SEWER NETWORK DESIGNED IN ACCORDANCE WITH ROADS IDENTIFIED ON ORIGINAL DRAINAGE AND LEVELS CONCEPT LAYOUT AND POSITIONS ARE SUBJECT TO CHANGE.

MATERIALS FOR ADOPTABLE SEWERS

PIPES 150mm - 300mm DIA :-

SURFACE AND FOUL WATER PIPES ARE TO BE PLASTIC (WAVIN OR SIMILAR). PIPES MUST COMPLY WITH THE RELEVANT REQUIREMENTS OF BS EN 295-1:2013 AND BS 65:1991 (surface water pipes only).

PIPES > 300mm:-

DIA SURFACE AND FOUL WATER PIPES ARE TO BE HIGH STRENGTH CONCRETE. CONCRETE SWDS AND FITTINGS WITH FLEXIBLE JOINTS SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS 8010-1:2003.

ALL ADOPTABLE DRAINAGE MUST COMPLY WITH SEWERS FOR ADOPTION 6TH EDITION AND ADOPTABLE WATER AUTHORITIES REQUIREMENTS

GENERAL NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH RELEVANT ARCHITECTURAL AND ENGINEERING DRAWINGS.

2. LEVELS INDICATED IN BLOCKS ARE FINISHED FLOOR LEVELS WHICH ARE GENERALLY 150MM ABOVE GROUND LEVELS.

3. ROADS FOOTPATHS AND PARKING BAYS WHICH FORM PART OF THE HIGHWAY TO BE ADOPTED UNDER SECTION 38 OF THE HIGHWAYS ACT 1980 SHALL COMPLY WITH THE RELEVANT COUNCIL HIGHWAY SPECIFICATION.

4. SEWERS TO BE ADOPTED UNDER SECTION 104 OF THE WATER INDUSTRIES ACT 1991 SHALL COMPLY WITH THE WATER AUTHORITIES ASSOCIATION "SEWERS FOR ADOPTION 6TH EDITION AND COMBINED ADDENDUM" OR THE CURRENT WATER AUTHORITIES SPECIFICATIONS.

5. ALL PIPE MATERIALS TO BE USED IN ADOPTABLE SEWERS SHALL BE AS SPECIFIED ON THE ROAD AND SEWER SECTION BOX.
CLAYWARE TO COMPLY TO BS EN 295, CONCRETE TO COMPLY WITH BS 5911, UNPLASTICISED PVC PIPES TO BS 4660 / BS EN1401-1:1998 / BS EN 13598-1:2003. (PVC-U). GRP PIPES TO BE APPROVED BY THE RELEVANT WATER AUTHORITY AND RECOMMENDED BY THE GROUND REPORT). THE USE OF PLASTIC PIPES SHOULD NOT BE USED IN CONTAMINATED GROUND.

THE MINIMUM REQUIREMENT FOR PIPES TO BE USED IN ADOPTABLE SEWERS IS TO BE AS FOLLOWS:

150MM DIA - CLASS 167 - MIN CRUSHING STRENGTH 26KN/M
225MM DIA - CLASS 120 - MIN CRUSHING STRENGTH 26KN/M
300MM DIA - CLASS 120 - MIN CRUSHING STRENGTH 36KN/M

LARGER THAN 300MM DIA - HIGH STRENGTH CONCRETE.

PIPES WITH MORE THAN 1200MM COVER TO BE LAID WITH CLASS S BEDDING UNLESS OTHERWISE STATED.

WHERE COVER TO PIPES IS LESS THAN 1200MM UNDER CARRIAGEWAYS OR VEHICULAR ACCESS AREAS OR OTHER PAVED AREAS THEY SHALL HAVE 150MM GRADE C20, ST4 CONCRETE SLAB PROTECTION IN ACCORDANCE WITH BTW REQUIREMENTS. FOR PRIVATE DRAINAGE, CLASS 2 150MM CONCRETE BED AND SURROUND, WITH FLEXIBILITY OF JOINTS BEING MAINTAINED BY USING COMPRESSIBLE FIBREBOARD AT EVERY PIPE JOINT.

6. ALL EXISTING DRAINAGE INVERT LEVELS, DIAMETERS AND LOCATIONS ARE TO BE CHECKED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF ANY PROPOSED DRAINAGE WORK. ANY DIFFERENCE BETWEEN ACTUAL AND DRAWN DETAILS IS TO REPORTED IMMEDIATELY.

7. POSITIONS OF EXISTING SERVICES/STAUTORY UNDERTAKERS APPARATUS ADJACENT TO OR CROSSING PROPOSED SEWERS IS TO BE CHECKED BY THE CONTRACTOR PRIOR TO STARTING WORK.

MINIMUM DIMENSIONS FOR MANHOLES

Type	Size of largest pipe (DN)	Min internal dimensions: Rectangular length and width	Min internal dimensions: Circular diameter	Min clear opening size*: Rectangular length and width	Min clear opening size*: Circular diameter
Manhole not deep to suffix	≤ 150	750 x 670' 1050 x 750 1500 x (DN+450)	1000' 1200 1350 The larger of 1800 or (DN+450)	750 x 670' 1050 x 670'	n/a*
	225 300 375 450				
Manhole > 1.5m deep to suffix	≤ 225	1200 x 1000 1200 x 1075 1500 x 1075	1200 1350 1500 The larger of 1800 or (DN+775)	675 x 675	600
	300 375 450				
Manhole* > 3.0m deep to suffix	Steps	1050 x 800	1050	675 x 675	600
	Ladder	1200 x 800	1200		
	Winch	900 x 800	900	675 x 675	600

NOTES:
1) LARGER SIZES MAY BE REQUIRED FOR MANHOLES ON BENDS OR WHERE THERE ARE JUNCTIONS.
2) MAY BE REDUCED TO 675 BY 675 WHERE REQUIRED BY HIGHWAY LOADING CONSIDERATIONS, SUBJECT TO A SAFE SYSTEM OF WORK BEING SPECIFIED.
3) NOT APPLICABLE DUE TO WORKING SPACE NEEDED.
4) MINIMUM HEIGHT OF CHAMBER IN SHAFTED MANHOLE 2M FROM BENCHING TO UNDERSIDE OF REDUCING SLAB.
5) MIN CLEAR SPACE BETWEEN LADDERS OR STEPS AND THE OPPOSITE FACE OF THE SHAFT SHOULD BE APPROXIMATELY 900MM
6) WHICH ONLY - NO STEPS OR LADDERS, PERMANENT OR RETRACTABLE.
7) THE MINIMUM SIZE OF ANY MANHOLE SERVING A SEWER (I.E.ANY DRAIN SERVING MORE THAN ONE PROPERTY) SHOULD BE 1200 MM X 675 MM RECTANGULAR OR 1200 MM DIAMETER.

ALL SEWERS ARE TO COMPLY WITH THE DESIGN AND CONSTRUCTION GUIDE AND SEVERN TRENT WATER REQUIREMENTS

Rev	Description	By	Ckd	Date
P03	Drainage designs minorly updated - sections updated as necessary.	JW	CW	04.06.26
P02	Sections updated following roads and drainage level review - sheet number updated.	JW	CW	29.11.24
P01	First Issue	GB	CW	02.08.24

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Client: Countryside Partnerships

Project: Drakelow Park
Phases 3 and 4

Title: Longitudinal Sections
Sheet 7

Status: Preliminary
Scale @ A0: V1:100 / H1:500
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