



- KEY**
- EXISTING PUBLIC COMBINED WATER SEWER
 - EXISTING PUBLIC FOUL WATER SEWER
 - EXISTING PUBLIC SURFACE WATER SEWER
 - PROPOSED S104 FOUL WATER SEWER
 - PROPOSED S104 SURFACE WATER SEWER
 - PROPOSED PRIVATE FOUL WATER SEWER
 - PROPOSED PRIVATE SURFACE WATER SEWER
 - PROPOSED SURFACE WATER HIGHWAY DRAIN
 - EXISTING PUBLIC COMBINED WATER MANHOLE
 - EXISTING PUBLIC FOUL WATER MANHOLE
 - EXISTING PUBLIC SURFACE WATER MANHOLE
 - PROPOSED S104 FOUL WATER MANHOLE/PPIC
 - PROPOSED S104 SURFACE WATER PPIC/MANHOLE
 - PROPOSED PRIVATE FOUL WATER MANHOLE/PPIC
 - PROPOSED PRIVATE SURFACE WATER PPIC/MANHOLE
 - CHANNEL DRAIN (ACO RAINDRAIN WITH B125 GRATING OR SIMILAR APPROVED)
 - SEWER EASEMENT (PROPOSED)
 - SITE BOUNDARY

- GENERAL NOTES**
- 1.1. THIS DRAWING IS COPYRIGHT AND SHOULD NOT BE REPRODUCED IN WHOLE OR PART WITHOUT THE WRITTEN CONSENT OF PATRICK PARSONS LTD.
 - 1.2. DO NOT SCALE FROM THIS DRAWING.
 - 1.3. LOCATIONS OF ALL EXISTING SERVICES ON-SITE TO BE CONFIRMED & PROVIDED TO THE ENGINEER PRIOR TO COMMENCEMENT OF WORKS.
 - 1.4. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT PATRICK PARSONS LTD DRAWINGS & SPECIFICATIONS.

- YORKSHIRE WATER GENERAL NOTES**
1. ALL ADAPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH "SEWERS FOR ADOPTION" 6TH EDITION OF THE RELEVANT BRITISH/EUROPEAN AND YORKSHIRE WATER'S STANDARDS/REQUIREMENTS/ADDENDUM TO THE MECHANICAL AND ELECTRICAL SPECIFICATION AND KITEMARKED.
 2. MANHOLE COVERS SHALL HAVE A CLEAR OPENING OF 600mm AND SHALL BE CLASS D400 BS EN 124 WITH 150mm DEEP FRAMES IN HIGHWAY. FILLED GROUND MUST BE FILLED AND CONSOLIDATED UNDER THE SUPERVISION AND TO THE SATISFACTION OF YORKSHIRE WATER BEFORE ANY SEWER WORKS ARE CARRIED OUT.
 3. COVER SLABS MUST CARRY THE BSI KITEMARK OR WILL BE REJECTED BY YORKSHIRE WATER INSPECTOR. WHERE THE CLEAR OPENING OF THE KITEMARKED PRODUCT IS DIFFERENT TO THAT OF THE COVER AND FRAME, A LOADING 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.
 4. ALL CONCRETE PIPES TO BE BS EN 1916 CLASS 120.
 5. COVER SLABS MUST CARRY THE BSI KITEMARK OR WILL BE REJECTED BY YORKSHIRE WATER INSPECTOR. WHERE THE CLEAR OPENING OF THE KITEMARKED PRODUCT IS DIFFERENT TO THAT OF THE COVER AND FRAME, A LOADING 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.
 6. THE ADAPTABLE SEWERS SHOULD BE A MINIMUM OF 1m AND MANHOLES 0.5m FROM KERB FACES AND SERVICE MARGINS.
 7. SEWERS MUST HAVE 5 METRES 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).
 8. SEWERS TO BE LAID IN CLASS "S" BEDDING (150mm GRANULAR BED AND SURROUND), WHERE DEPTH OF COVER TO TOP OF THE SEWER IS LESS THAN 1.2m IN HIGHWAYS AND VERGES OR LESS THAN 900mm IN NONE VEHICULAR ACCESS AREAS THEN 150mm CONCRETE SLAB SHOULD BE PROVIDED ABOVE THE GRANULAR BED AND SURROUND.
 9. ADAPTABLE PLASTIC SEWER PIPES TO BE BSI KITEMARKED (CERTIFIED TO WIS 4-35/1 AND BS EN 13476).
 10. ADAPTABLE SEWER PIPES TO BE LAID IN MAXIMUM 3 METRE LENGTHS UNLESS THERE IS A SPECIFIC OPERATIONAL NEED TO LAY LONGER. BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENTS OF WATER INDUSTRY SPECIFICATION 4-08-02 (TABLE A2).
 11. PLASTIC CHANNEL SECTIONS IN MANHOLES ARE NOT ACCEPTABLE AND YORKSHIRE WATER WOULD PREFER CLAY WARE CHANNEL IN MANHOLES. THEY HAVE FOUND THAT PLASTIC CHANNELS ARE DIFFICULT TO SET IN CONCRETE BECAUSE THAT FLOAT AND A SATISFACTORY FINISH CANNOT BE OBTAINED ON THE BENCHING.
 12. THE CHAMBER SIZE OF MANHOLES WITH MORE THAN ONE CONNECTION IN THEM MAY NEED TO BE INCREASED AN INCREMENT TO ACCOMMODATE THE CONNECTIONS AND BENDS.
 13. YORKSHIRE WATER POLICY IS NOT TO ACCEPT TYPE "C" BRICK MANHOLES. INSTEAD IT IS PREFERRED THAT YOU USE TYPE "B" MANHOLES WITH 1200mm DIA OR 1500mm DIA RINGS, WITH THE OPENING SITED OVER THE CHANNEL WHERE DEPTH OF COVER TO PIPE SOFFIT IS 1.5m.
 14. SURFACE WATER AND FOUL RISING MAINS TO BE PROVIDED WITH MARKER TAPE ABOVE THE RISING MAIN.
 15. IF PLASTIC PIPES ARE TO BE USED THEN THE FOLLOWING SHOULD APPLY:- A) ALL ADAPTABLE SEWERS TO BE BSI KITEMARK (CERTIFIED TO WIS 4-35/1).
 16. B) PIPES LESS THAN OR EQUAL TO 5000 SHALL HAVE NOMINAL SHORT-TURN RING STIFFNESS NOT LESS THAN 8000N.
 17. C) BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENTS OF WATER INDUSTRY SPECIFICATION 4-08-02 (TABLE A2).
 18. YORKSHIRE WATER IS NOT OBLIGED TO ACCEPT FILTER DRAIN/LAND DRAINAGE RUN-OFF INTO THE PUBLIC SEWER NETWORK OR ADAPTABLE DRAINAGE SYSTEM (DIRECTLY OR INDIRECTLY). AN ALTERNATIVE METHOD OF DISPOSAL OF THE LAND DRAINAGE RUN-OFF WILL THEREFORE BE REQUIRED AND YOU WILL HAVE TO LIASE WITH THE LOCAL AUTHORITY. LAND DRAINAGE SECTION WITH REGARD TO THE DISPOSAL OF THE FILTER DRAIN/LAND DRAINAGE RUN-OFF.
 19. SULPHATE RESISTANT CEMENT (C20-DC2) AND PRECAST CONCRETE PRODUCTS MUST BE USED OR A LABORATORY REPORT PROVIDED PROVING THAT SUCH PRECAUTIONS ARE NOT NECESSARY.
 20. ALL LEVELS TO BE CONFIRMED PRIOR TO WORKS COMMENCING ON SITE.

DRAINAGE NOTES

MANHOLE COVERS SHALL HAVE A CLEAR OPENING OF 600MM AND SHALL BE CLASS D400 TO BS EN 124 WITH 150MM DEEP FRAMES IN HIGHWAYS.

WHERE A B125 COVER AND FRAME HAS BEEN APPROVED, THIS MUST NOT BE COATED IN PLASTIC AND MUST HAVE LIFTING EYES SUITABLY SIZED TO ACCOMMODATE STANDARD LIFTING KEYS. SCREW DOWN COVERS ARE NOT ACCEPTABLE.

FILLED GROUND MUST BE FILLED AND CONSOLIDATED UNDER THE SUPERVISION AND TO THE SATISFACTION OF YORKSHIRE WATER BEFORE ANY SEWER WORKS ARE CARRIED OUT.

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THE ADAPTABLE SEWERS SHOULD BE A MINIMUM OF 1M AND MANHOLES 0.5M FROM KERB FACES AND SERVICE MARGINS.

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BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENT OF WATER INDUSTRY SPECIFICATION 4-08-02 (TABLE A2).

THE CHAMBER SIZE OF MANHOLES WITH MORE THAN ONE CONNECTION IN THEM MAY NEED TO BE INCREASED AN INCREMENT TO ACCOMMODATE THE CONNECTIONS AND BENDS.

YORKSHIRE WATER POLICY IS NOT TO ACCEPT TYPE "C" BRICK MANHOLES AND 1050MM DIA MANHOLE RINGS. INSTEAD IT IS PREFERRED THAT YOU USE A TYPE "B" MANHOLE WITH 1200MM DIA OR 1500MM DIA RINGS, WITH THE OPENING SITED OVER THE CHANNEL WHERE DEPTH OF COVER TO PIPE SOFFIT IS 1.5m.

P2	SITE BOUNDARY AMENDED	05.06.18	TB
P1	INITIAL ISSUE	29.05.18	TB
Rev.	Amendments	Date	By

Revisions

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Client
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Project
**SAUNDERSON ROAD
PENISTONE**

Drawing
SECTION 104 LAYOUT

Scales 1:250 At original size A1

Date TB **Checked** TE

Date MAY 2018

Status **PRELIMINARY**

Drawing No. N16417-230 **Rev.** P2