



- YW Ref:**
- HIGHWAYS**  
 1. ALL EXCAVATIONS BELOW ADOPTED HIGHWAYS TO BE BACKFILLED WITH TYPE 1 AND COMPACTED IN LAYERS NOT EXCEEDING 150mm.  
 2. HIGHWAY AUTHORITY TO BE CONTACTED AS SOON AS CONTRACTOR IS ON SITE TO ENABLE EARLY DISCUSSIONS WITH THE CLERK OF WORKS.
- GENERAL DRAINAGE**  
 3. MANHOLES INSPECTION CHAMBER COVERS IN TRAFFICKED AREAS TO BE LOADING TYPE D400 AND B125 IN NON-TRAFFICKED AREAS.  
 4. ALL GULLIES TO BE TRAPPED AS SHOWN ON THE DETAILS DRAWINGS.  
 5. POSITION AND LEVELS OF EXISTING MANHOLES AND SEWERS ARE TO BE CHECKED ON SITE AS SOON AS POSSIBLE AND PREFERABLY BEFORE SITE ACTIVITIES COMMENCE.  
 6. THE SEWER CONNECTION IS TO BE CARRIED OUT BY AN NWL APPROVED CONTRACTOR.  
 7. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE DRAINAGE DETAILS DRAWINGS.  
 8. FOR PROPOSED ADOPTED DRAINAGE PIPES WITH LESS THAN 900mm COVER IN AREAS NOT SUBJECT TO VEHICULAR LOADING AND LESS THAN 1200mm IN VEHICULAR LOADING AREAS TO BE CONCRETE PROTECTED.  
 9. ADOPTED DRAINAGE IS TO COMPLY WITH 'DESIGN AND CONSTRUCTION GUIDANCE'.  
 10. PIPE SURROUND TO BE GRANULAR TYPE 'S' UNLESS NOTED OTHERWISE.  
 11. PRIVATE DRAINAGE IS TO COMPLY WITH ALL STATUTORY REQUIREMENTS AND ACCORD WITH BS EN 752 AND BUILDING REGULATIONS APPROVED DOCUMENT H.  
 12. PIPE BEDDING SHOULD BE GRANULAR UNLESS NOTED OTHERWISE AND THE GRANULAR MATERIAL TO BE TO BS882 PT 2 AND TO BUILDING REGULATIONS PART H.  
 13. PIPE SIZES TO BE 100MM U.N.O.  
 14. FOR DRAINAGE PIPES TO BE CAST IN CONCRETE TO HAVE ROCKER PIPES EITHER SIDE OF CONCRETE.



- KEY**
- EXISTING SURFACE WATER SEWER
  - EXISTING FOUL WATER SEWER
  - PROPOSED SURFACE WATER SEWER
  - PROPOSED FOUL WATER SEWER
  - [Hatched Box] EXTENT OF GEOGRID REINFORCEMENT (DETAIL TO BE CONFIRMED WITH ADOPTING DRAINAGE AND HIGHWAY AUTHORITIES)

- YORKSHIRE WATER NOTES:**
1. ALL ADOPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH DESIGN AND CONSTRUCTION GUIDANCE (DCG CODE FOR ADOPTION), 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 TO BE EN 124 WITH 150mm DEEP FRAMES IN HIGHWAYS.
  3. FILLED GROUND MUST BE FILLED AND CONSOLIDATED UNDER THE SUPERVISION AND TO THE SATISFACTION OF YORKSHIRE WATER BEFORE ANY SEWER WORKS ARE CARRIED OUT.
  4. YORKSHIRE WATER IS NOT OBLIGED TO ACCEPT FILTER DRAIN/LAND DRAINAGE RUN-OFF INTO THE PUBLIC SEWER NETWORK OR ADOPTABLE DRAINAGE (DIRECTLY OR INDIRECTLY). AN ALTERNATIVE METHOD OF DISPOSAL OF THE LAND DRAINAGE RUN-OFF WILL THEREFORE BE REQUIRED AND YOU WILL HAVE TO LIAISE WITH THE LOCAL AUTHORITY LAND DRAINAGE SECTION REGARDING THE DISPOSAL OF FILTER DRAIN/LAND DRAINAGE RUN-OFF.
  5. THE ADOPTABLE SEWERS SHOULD BE A MINIMUM OF 1m AND 0.5m FROM KERB FACES AND SERVICE MARGINS.
  6. SEWERS MUST HAVE A 5m CLEARANCE FROM TREES AND HEDGES OR THE WIDTH OF THE CANOPY AT MATURE HEIGHT.
  7. 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 0.9m IN NON-VEHICULAR AREAS) THEN A CONCRETE SLAB SHOULD BE PROVIDED ABOVE GRANULAR BED AND SURROUND.
  8. BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENT OF WATER INDUSTRY SPECIFICATION 4-08-02 (TABLE A2).
  9. YORKSHIRE WATER POLICY IS THAT BRICK MANHOLES AND 'TYPE C' 100mm DIA MANHOLE RINGS ARE NOT PREFERRED. INSTEAD, IT IS PREFERRED THAT A 'TYPE B' MANHOLE WITH 120mm DIA OR 135mm DIA RINGS ARE USED, WITH THE OPENING SITED OVER THE CHANNEL WHERE DEPTH OF COVER TO PIPE SOFFIT IS 1 - 1.5m.
  10. ADOPTABLE PLASTIC SEWER PIPES TO BE BSI KITEMARKED (CERTIFIED TO WIS 4-35-01) AND BS EN 13476). ADOPTABLE PLASTIC PIPES SEWER PIPES TO BE LAID IN MAXIMUM 3m LENGTHS UNLESS THERE IS A SPECIFIC OPERATIONAL NEED TO LAY LONGER LENGTHS. PLASTIC CHANNEL SECTIONS IN MANHOLES ARE NOT ACCEPTABLE AND YORKSHIRE WATER WOULD PREFER CLAYWARE CHANNEL IN MANHOLES.
  11. THE MINIMUM CRUSHING STRENGTH FOR CLAY PIPES SHOULD BE AS FOLLOWS: 100mm DIA, 40kN/m, 150mm DIA, 40kN/m, 225mm DIA, 45kN/m, AND 300mm DIA, 72kN/m. THE MINIMUM CRUSHING STRENGTH FOR CONCRETE PIPES SHOULD BE - CLASS 120 TO EN 1916/BS5911-1:2002). PLASTIC PIPES SHOULD CONFIRM TO WIS 4-35-01 AND BS EN 13476.
  12. 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.
  13. THERE MUST BE ENOUGH CLEARANCE AT CROSSOVERS TO ACCOMMODATE BEDDING TO BOTH PIPES. APPROX 300mm. IF CROSSOVER IS NEAR THE ROCKER THEN THE CLEARANCE NEEDED MAY NEED TO BE INCREASED.

Issue	Date	Description	By	Chkd	Appd
P7	21.08.25	Updated in accordance with client comments	GW	PB	PB
P6	14.08.25	Foul & surface water outfalls revised	PB	PB	PB
P5	13.08.25	Surface water outfall revised following receipt of drainage survey	PB	PB	PB
P4	13.08.25	Retaining wall types revised	PB	PB	PB
P3	30.06.25	Revised to suit updated architects layout	PB	PB	PB
P2	21.05.25	Layout updated and levels revised	PB	PB	PB
P1	13.05.25	Preliminary issue	PB	PB	PB



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Client  
**BELLWAY HOMES**

Job Title  
**HOYLAND BARNESLEY**

Drawing Title  
**ENGINEERING LAYOUT SHEET 1**

Scale at A1  
 1:250

Drawing Status  
**PRELIMINARY**

Job No  
**25035**

Drawing No  
**01**

Issue  
**P7**