



- KEY**
- 1. DO NOT SCALE
  - 2. THE CONTRACTOR IS TO CHECK AND VERIFY ALL BUILDINGS AND SITE DIMENSIONS AND LEVELS, INCLUDING SEWER INVERT LEVELS, BEFORE WORKS START ON SITE. THE CONTRACTOR IS TO COMPLY IN ALL ASPECTS WITH THE CURRENT BUILDING LEGISLATION, BRITISH STANDARDS, BUILDING REGULATIONS ETC.
  - 3. POSITIONS OF EXISTING SERVICES/STATUTORY UNDERTAKERS APPARATUS ADJACENT TO OR CROSSING PROPOSED EXCAVATIONS ARE TO BE CHECKED BY THE CONTRACTOR PRIOR TO STARTING WORK.
  - 4. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH AND CHECKED AGAINST ALL OTHER DRAWINGS/ENGINEERING DETAILS, SPECIFICATION AND ANY STRUCTURAL, GEOTECHNICAL OR OTHER SPECIALIST DOCUMENT PROVIDED.
  - 5. ANY ANOMALY OR CONTRADICTION BETWEEN ANY OF THE ABOVE IS TO BE REPORTED TO BOW SOUTH WALES.
  - 6. THIS DRAWING IS SCHEMATIC FOR CLARITY ONLY. POSITIONS OF PIPE RUNS AND MANHOLES MAY VARY ON SITE DUE TO SITE CONDITIONS.
  - 7. SUBSOIL TO GARDEN AREAS TO BE BROKEN UP PRIOR TO TOP SOILING.
- DRAINAGE NOTES**
1. ALL PRIVATE DRAINAGE SHALL BE IN ACCORDANCE WITH BS8301 AND RELEVANT SECTIONS OF APPROVED DOCUMENT H OF THE BUILDING REGULATIONS.
  2. THE CONTRACTOR IS TO CHECK THE LEVEL OF EXISTING SEWERS BEING USED AS OUTFALLS OR CROSSING PROPOSED DRAINAGE RUNS PRIOR TO LAYING ANY PIPES. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER. ALL SURFACE WATER LATERAL PIPES TO BE 150MM DIAMETER UNLESS SHOWN OTHERWISE.
  3. ALL FOU LATERAL PIPES TO BE 100MM DIAMETER UNLESS SHOWN OTHERWISE.
  4. ALL CONNECTIONS FOR HOUSE DRAINAGE SHALL BE 100MM UNLESS NOTED OTHERWISE AND MUST EXTEND 500MM BEHIND THE BACK OF FOOTING/HOMEZONE ROAD. ALL CONNECTIONS WHEN LAD SHALL BE PLUGGED, PROTECTED AS NECESSARY AND MARKED WITH A STAKE FOR FUTURE USE. ALL DRAINAGE LATERALS FROM THE ADAPTABLE DRAINAGE SYSTEM TO BE 150MM DIA. UNLESS CONNECTING TO THE HEAD OF A 100MM DIA. PIPES.
  5. FOR PRIVATE DRAINS WHERE COVER TO PIPES IS LESS THAN 900MM IN VEHICULAR AREAS OR 600MM IN OTHER AREAS PROTECTION IN THE FORM OF A 100MM THICK CONCRETE PAD SHALL BE PROVIDED OVER THE PIPE GRANULAR SURROUND.
  6. FOOTING PIPES PASS THROUGH SCREEN WALLS, FOUNDRIES OR RETAINING WALLS UNITS ARE TO BE PROVIDED OVER UNDER BUILDINGS PIPES SHALL BE SURROUNDED WITH 150MM THICKNESS OF GRANULAR MATERIAL. WHERE DRAINS PASS WITHIN 1M OF BUILDINGS THE WALL FOUNDATION SHALL BE TAKEN DOWN BELOW THE INVERT OF THE PIPE. WHERE DRAINS DO NOT EXCEED 900MM DEEP PLASTIC OR CLAY ACCESS FITTINGS MINIMUM DIAMETER 225MM SHALL BE USED. ELSEWHERE PROPRIETARY PLASTIC OR PRECAST CONCRETE INSPECTION CHAMBERS SHALL BE USED UNLESS SHOWN OTHERWISE. FIN INSPECTION CHAMBERS ARE TO BE 750MM BELOW DPC LEVEL AND SW CHAMBERS AND ROOFING EYES TO BE 450MM BELOW DPC.
  7. ALL GULLIES AND RAINWATER DOWNPIPES CONNECTED DIRECTLY TO DRAINS ARE TO BE ROADABLE.
  8. HOUSE LEVELS SHOWN ARE DPC AND ADJACENT GARAGE FLOORS ARE TO BE 150MM LOWER UNLESS SHOWN OTHERWISE. LEVELS AT DRAINAGE ACCESS POINTS ARE INVERTS.
  9. DRAINAGE RUNS SHOULD BE LAID AT A MINIMUM OF 5.0M FROM THE REAR OF PROPERTIES WHERE PRACTICAL TO ALLOW FOR FUTURE EXTENSIONS.
  10. ALL DRAINAGE SHALL BE LAID UPSTREAM AND EACH RUN BETWEEN MANHOLES SHALL BE LAID COMPLETE PRIOR TO BACKFILLING. WHERE THIS IS NOT PRACTICAL TIAL HOLES OR OTHER MEANS OF IDENTIFYING THE LINE AND LEVEL OF SERVICES SHALL BE CARRIED OUT PRIOR TO WORKS COMMENCING.
  11. ALL BRANCH DRAINS, OR CONNECTIONS, ARE TO DISCHARGE TO THE COLLECTORS OBVIOUSLY, AND IN THE DIRECTION OF THE MAIN FLOW.
  12. ALL SPOTS ON HARDSTANDING AREAS TO HAVE YARD GULLIES/ACC.
- SEWER ADOPTION NOTES**
- ALL WORKS FOR ADOPTION UNDER A SECTION 104 AGREEMENT SHALL BE CARRIED OUT TO THE NATIONAL WATER COUNCIL GUIDE "SEWERS FOR ADOPTION" 7TH EDITION AND DWR CDMRU WELSH WATER'S REQUIREMENTS.
- APPROVED DWR CDMRU WELSH WATER PLASTIC PIPE SYSTEMS ARE AS FOLLOWS:
- MARLEY TWINWALL SYSTEM
  - UPPIER ULTRAB SYSTEM
  - OSAM ULTRAB SYSTEM
  - POLYSEWER TWINWALL SYSTEM
  - POLIPPES - RUGSEWER (400mm-600mm AND 750mm-900mm)
- PLEASE NOTE THAT THE INSTALLER MUST BE ACCREDITED WITH THE BRITISH PLASTICS FEDERATION (BPF).

LEAP

RETENTION BASIN 1  
TO ACCOMMODATE UP TO 1 IN  
100 YEAR + 30%CC  
740MP OF STORAGE WITH  
ALLOWANCE OF 300mm  
FREEBOARD.  
INVERT LEVEL = 64.30m  
1 IN 100 YEAR + 0%  
WATER LEVEL = 65.55m  
TOP LEVELS = 65.85m

OUTFALL TO  
EXISTING DITCH VIA  
ALTHON SFAS A  
HEADWALL  
CL=66.15m (LEVELS TO BE  
RAISED TO ACCOMMODATE CL)  
CL=64.25m

P2 09/04/2021 Layout updated, drainage updated to suit.  
P1 07/04/2021 Layout updated, drainage updated to suit. Management company drainage colour updated.

Revisions

Project: **Llewellyn Road Penlergaer**

Client: **BARRATT** **PHOENIX DESIGN PARTNERS LTD**

Drawing: **Drainage Layout Sheet 2**

Scale: 1:250 @ A0 Date: March 2021 Drawn by: JPB

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