



**FILTER DRAIN NOTE:**  
 FILTER DRAINS CAN BE FORMED ALONG THE EDGE OF THE COURTYARD AND FOOTPATHS AROUND THE PERIMETER OF THE MAIN BUILDING. SURFACE WATER RUN-OFF FROM THESE AREAS WILL DISCHARGE TO THE FILTER DRAIN PRIOR TO DISCHARGE TO MAIN DRAINAGE NETWORK. THE FILTER DRAIN WILL BE FORMED OF A 300x300mm DEEP TRENCH FILLED WITH 20mm NO FINES AGGREGATE AND WRAPPED IN A PERMEABLE MEMBRANE. THE TRENCH WILL HOUSE A PERFORATED PIPE WHICH WILL CONVEY THE SURFACE WATER TO THE MAIN NETWORK. THE FILTER DRAIN SYSTEM WILL REDUCE THE SURFACE WATER RUN-OFF RATES, AND ACT AS A POLLUTANT CONTROL.

**SURFACE WATER ATTENUATION TANK:**

TYPE	CELLULAR UNITS
LENGTH	34.00m
WIDTH	6.00m
AREA	204.00m <sup>2</sup>
DEPTH	1.20m
VOLUME	244.80m <sup>3</sup>
POROSITY	0.85
ATTENUATION	232.560m <sup>3</sup>
INVERT LEVEL	114.650m
SOFFIT LEVEL	112.650m
COVER	700mm

**FLOW CONTROL CHAMBER:**  
 CONTROL - HYDRO-BRAKE  
 INVERT LEVEL - 111.420  
 DESIGN HEAD - 1.230  
 DESIGN FLOW - 2.7 l/s  
 DIAMETER - 75mm  
 UNIT REFERENCE:  
 MD-SHE-0075-2700-1250-2700  
 PEAK SW DISCHARGE - 2.8 l/s

**PERMEABLE PAVING NOTE:**  
 PERMEABLE PAVING TO BE FORMED IN THE PARKING BAYS OF THE CAR PARK TO THE SOUTH IF THE SITE. THE PERMEABLE SURFACING WILL BE FORMED OVER A 300mm DEEP SUB-BASE CONSISTING OF 20mm NO FINES AGGREGATE, WHICH HOUSES A PERFORATED PIPE TO CONVEY THE SURFACE WATER TO THE INFILTRATION STRUCTURE. THE PERMEABLE SURFACING SYSTEM WILL REDUCE THE SURFACE WATER RUN-OFF RATES, AND ACT AS A POLLUTANT CONTROL.

**PETROL INTERCEPTOR 2:**  
 TYPE - BYPASS  
 MAKE - KLARGESTER  
 MODEL - NSBP003  
 LENGTH - 1.700m  
 DIAMETER - 1.350m  
 SHAFT - 0.600m

FOUL WATER OUTFALL PIPE TO 300 Ø YORKSHIRE WATER FOUL WATER SEWER OXFORD ROAD. CONNECTION / DISCHARGE SUBJECT TO SECTION 106 AGREEMENT WITH YORKSHIRE WATER PRIOR TO COMMENCEMENT OF DRAINAGE WORK. MANHOLE / SEWER LOCATION, CONDITION AND DEPTH TO BE CONFIRMED PRIOR TO THE COMMENCEMENT OF ANY DRAINAGE WORK. DRAINAGE DESIGN SUBJECT TO CHANGE ONCE SEWER LEVEL / DEPTH IS KNOWN.

SURFACE WATER OUTFALL PIPE TO 500 Ø YORKSHIRE WATER SURFACE WATER SEWER OXFORD ROAD. CONNECTION / DISCHARGE SUBJECT TO LOCAL AUTHORITY APPROVAL AND SECTION 106 AGREEMENT WITH YORKSHIRE WATER PRIOR TO COMMENCEMENT OF DRAINAGE WORK. MANHOLE / SEWER LOCATION, CONDITION AND DEPTH TO BE CONFIRMED PRIOR TO THE COMMENCEMENT OF ANY DRAINAGE WORK. DRAINAGE DESIGN SUBJECT TO CHANGE ONCE SEWER LEVEL / DEPTH IS KNOWN.

**GENERAL DRAINAGE NOTES:**

- EXISTING DETAILS SHOWN ON THIS DRAWING INCLUDING KERB LINES, EXISTING DRAINS, CHAMBERS, SEWERS, PIPEWORK, STUB CONNECTIONS WHERE NEW CONNECTIONS, DIVERSIONS OR ABANDONMENT ARE SHOWN, INVERT LEVELS AND PIPE SIZES SHALL BE CHECKED AND CONFIRMED TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF ANY WORKS. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER FOR ACTION PRIOR TO ANY NEW CONSTRUCTION.
- ALL DRAINAGE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY AND IN CONJUNCTION WITH ALL RELEVANT BRITISH STANDARDS AND CODES OF PRACTICE.
- ALL DRAINAGE SHALL COMPLY WITH THE TYPICAL DRAINAGE CONSTRUCTION DETAILS AND THE REQUIREMENTS OF BS EN 752.
- ACCESS COVERS AND FRAMES SHALL COMPLY WITH THE LOADINGS SPECIFIED AND TO BS EN 124 AND KITE-MARKED OR RECESSED COVERS ARE SPECIFIED THEM IN ACCORDANCE WITH FACTA ASSOCIATION EQUIVALENT.
- THE PROPOSED BUILDING OUTLINES SHOWN ON THIS DRAWING ARE FOR INFORMATION ONLY. REFER TO ARCHITECT'S PLANS FOR PRECISE LOCATION SETTING OUT INFORMATION AND DETAILS.
- ALL UNDER SLAB DRAINAGE SHALL BE CLEAR OF FOUNDATIONS UNLESS SHOWN OTHERWISE WITH LONG RADIUS BENDS KEPT TO A MINIMUM AND USED WHERE UNAVOIDABLE.
- ALL PRIVATE DRAINAGE PIPEWORK FOR FOUL AND SURFACE WATER SYSTEMS HAVE BEEN DESIGNED ON THE BASIS OF UPVC TO BS EN 1401-1, UNLESS NOTED OTHERWISE.
- WHERE NEW DRAINAGE IS SITUATED WITHIN 5 METRES OF NEW OR EXISTING TREES THE PIPEWORK SHALL BE ENCASED IN CONCRETE TO REDUCE THE RISK OF ROOT INGRESS.
- CONCRETE ENCASEMENT OF THE PIPEWORK SHALL BE REQUIRED WHERE THE VERTICAL CLEARANCE BETWEEN TWO PIPES CROSSING IS LESS THAN 300mm.
- ALL EXISTING DRAINAGE SHALL BE ASSUMED TO BE 'LIVE' AND SHALL BE MAINTAINED AT ALL TIMES DURING THE WORKS. EXISTING DRAINAGE SHALL BE RECONNECTED TO THE NEW DRAINAGE SYSTEM UNLESS PROVEN TO BE REDUNDANT FOR ABANDONMENT. ALL EXISTING DRAINAGE TO BE ABANDONED SHALL BE SEALED BY APPROPRIATE MEANS.
- UPON COMPLETION ALL NEW DRAINAGE INSTALLATION, TOGETHER WITH ANY EXISTING DRAINAGE RETAINED, SHALL BE JETTED AND CCTV SURVEYED. CONTRACTOR TO ENSURE THAT THE DRAINAGE SYSTEM IS FULLY OPERATIONAL, FREE OF EXCESS DEBRIS / SILT AND ALL IDENTIFIED FAULTS RECTIFIED.

- LEGEND:**
- PROPOSED SURFACE WATER DRAINAGE
  - PROPOSED FOUL WATER DRAINAGE
  - EXISTING SURFACE WATER SEWER
  - EXISTING FOUL WATER SEWER
  - RWP - RAINWATER PIPE
  - CHANNEL DRAIN
  - FOUL DOWN PIPE
  - FOUL GULLY
  - FILTER DRAINS (SEE NOTES)
  - PERMEABLE PAVING (SEE NOTES)
  - DEVELOPMENT BOUNDARY

**HEALTH & SAFETY:**

- THE WORKS SHALL BE CARRIED OUT BY SPECIALIST COMPETENT AND EXPERIENCED CONTRACTORS. ALL OPERATIVES SHALL HAVE RECEIVED FULL AND APPROPRIATE TRAINING WITH APPROPRIATE QUALIFICATIONS FOR THE OPERATIONS THEY ARE REQUIRED TO UNDERTAKE. ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH THE RELEVANT HEALTH & SAFETY REGULATIONS.

**SITE SPECIFIC DRAINAGE NOTES:**

- ANY EXISTING DRAINAGE WITHIN THE DEVELOPMENT SITE TO REMAIN LIVE AND TO BE DIVERTED IF REQUIRED. EXISTING DRAINAGE LOCATION, SIZE AND DEPTHS TO BE CONFIRMED PRIOR TO THE COMMENCEMENT OF ANY DRAINAGE WORK.
- PROPOSED RAINWATER AND FOUL DOWN PIPE LOCATIONS TO BE CONFIRMED PRIOR TO THE COMMENCEMENT OF ANY DRAINAGE WORKS. DESIGN SUBJECT TO CHANGE ONCE CONFIRMED.
- FINISHED FLOOR LEVEL, EXTERNAL LEVELS AND SUBSEQUENT COVER LEVELS OF PROPOSED DRAINAGE NETWORK TO BE CONFIRMED BY ARCHITECT PRIOR TO COMMENCEMENT OF ANY DRAINAGE WORKS. DESIGN SUBJECT TO CHANGE ONCE CONFIRMED.
- EXISTING FOUL AND SURFACE WATER SEWER LOCATION AND LEVELS / DEPTHS TO BE CONFIRMED PRIOR TO COMMENCEMENT OF ANY DRAINAGE WORK. DRAINAGE DESIGN SUBJECT TO CHANGE ONCE KNOWN.
- EXISTING FOUL WATER DISCHARGE SUBJECT TO YORKSHIRE WATER AND LOCAL AUTHORITY APPROVAL. NO DRAINAGE WORK TO COMMENCE UNTIL AGREEMENT AND APPROVAL NOTICE IS GIVEN.
- ALL FOUL WATER PIPES TO BE 100mm Ø UNLESS NOTED OTHERWISE.
- FOUL WATER DOWN PIPES TO HAVE INVERT LEVEL OF 450mm BELOW FINISHED FLOOR LEVEL, UNLESS NOTED OTHERWISE.
- FOUL PIPES CAN BE LAID AT A GRADIENT OF 1 IN 80 IF SERVING AT LEAST 1 WC.
- ALL SURFACE WATER PIPES TO BE 150mm Ø UNLESS NOTED OTHERWISE.
- RAINWATER PIPES TO HAVE INVERT LEVEL OF 950mm BELOW FINISHED FLOOR LEVEL, UNLESS NOTED OTHERWISE.
- MANUFACTURER TO CONFIRM SUITABLE COVER OVER CELLULAR UNITS IN PARKING AREA PRIOR TO COMMENCEMENT OF ANY DRAINAGE WORKS. DESIGN SUBJECT TO CHANGE.

**DRAINAGE SPECIFICATIONS:**

- FOUL WATER PIPES TO BE POLYPIPE TO BS EN 1401-1 OR EQUAL APPROVED.
- SURFACE WATER PIPES TO BE POLYPIPE RIDGDRAIN OR EQUAL APPROVED.
- FLOW CONTROL BY HYDRO-BRAKE BY HYDRO-INTERVENTIONAL.
- ATTENUATION TANK TO BE POLYPIPE POLYSTORM-R OR EQUAL APPROVED.
- PETROL INTERCEPTOR TO BE KLARGESTER BYPASS NSBP003 OR EQUAL APPROVED.
- INSPECTION CHAMBERS TO BE POLYPIPE OR EQUAL APPROVED.
- MANHOLES BY FP McCANN OR EQUAL APPROVED.
- FOUL GULLIES TO BE POLYPIPE 'MIDGULLY' OR EQUAL APPROVED.
- THRESHOLD AND CHANNEL DRAINS TO BE ACC 'DOORWAY' DRAIN AND ACC M1000.0.0 OR EQUAL APPROVED.

**NOTES:**

- IF THIS DRAWING HAS BEEN RECEIVED ELECTRONICALLY IT IS THE RECIPIENT'S RESPONSIBILITY TO PRINT THE DOCUMENT TO THE CORRECT SCALE.
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE. IT IS RECOMMENDED THAT INFORMATION IS NOT SCALED OFF THIS DRAWING.
- THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS AND SPECIFICATIONS.
- ANY DISCREPANCIES NOTED ON SITE ARE TO BE REPORTED TO THE ENGINEER IMMEDIATELY.
- FOR GENERAL NOTES REFER TO CCS CONSULTING DRAWING No. LE-161-CCS-01-XX-DR-S-0001

THIS DRAWING IS TO BE USED FOR PRELIMINARY INFORMATION ONLY AND MUST NOT BE READ AS A CONSTRUCTION ISSUE. IT INDICATES DESIGN INTENT ONLY AND IS SUBJECT TO AMENDMENT DURING FINAL DESIGN DEVELOPMENT

**PRELIMINARY DRAWING ISSUE**

P03	AMENDED TO SUIT LATEST ARCHITECT'S FLOOR PLANS	MDS	12.01.24
P02	AMENDED TO SUIT REVISED ARCHITECT'S SITE PLAN	MDS	10.10.23
P01	ISSUED FOR PLANNING	MDS	20.07.23

rev | amendments | by | date

Client: **ASH MARTIN CONSTRUCTION**

Project: **FREDRICK FINLAY - CARE HOME, OXFORD ROAD, DEWSBURY**

Title: **PROPOSED BELOW GROUND DRAINAGE LAYOUT**

Drawing Status:	Date Created:	Drawing Scale:
PRELIMINARY	JULY '23	1:125
Project Number   Originator   Vol.   Level   Type   Role   Number	Rev:	
LE-161-CCS-01-00-DR-S-0200	P03	
Project Leader:	Drawn By:	Initial Review:
JB	MDS	YA