

Appendix 9 – Ground Conditions and Geology

9.1 Figures

NOTES

1. INFORMATION CONCERNING THE POSITION OF EXISTING UTILITY INFRASTRUCTURE HAS BEEN EXTRACTED FROM RECORD MAPPING OBTAINED FROM STATUTORY UNDERTAKERS.
2. ABANDONED SERVICES MAY NOT BE SHOWN ON THIS PLAN.
3. TRUE POSITION OF THE SERVICES MAY BE DIFFERENT TO THAT SHOWN ON THIS PLAN, WHICH IS INTENDED FOR GENERAL GUIDANCE ONLY. NO GUARANTEE CAN BE GIVEN TO ITS ACCURACY AND IT SHOULD NOT BE RELIED UPON WHEN EXCAVATING IN THE VICINITY.
4. THESE SERVICES MAY NOT RUN IN A STRAIGHT LINE EITHER HORIZONTALLY OR VERTICALLY BECAUSE OF GROUND CONDITIONS, OBSTACLES AND OTHER REASONS.
5. BURIED SERVICES MAY EXIST AT VARIOUS DEPTHS AS GROUND LEVEL MAY HAVE BEEN ALTERED SINCE THE UTILITY APPARATUS WAS Laid.
6. STAND-OFF DISTANCES ARE INDICATIVE ONLY AND ARE SUBJECT TO CHANGE PENDING FURTHER CONSULTATION WITH RELEVANT UTILITY PROVIDERS.
7. STAND-OFF DISTANCES FROM THE INEOS PIPELINES FOR PILING/BORING ARE THE STARTING DISTANCES. STAND-OFF MAY BE REDUCED DEPENDING ON VIBRATION AND PILING DEPTH SUBJECT TO AGREEMENT WITH INEOS.

BEFORE EXCAVATING OR GROUND WORKS

8. ANY SITE INVESTIGATION OR GROUND PENETRATING ACTIVITY SHALL COMPLY WITH THE REQUIREMENTS OF RSE GUIDANCE DOCUMENT HS(G) 47 "AVOIDING DANGER FROM UNDERGROUND SERVICES"
9. ALL UNDERGROUND SERVICES i.e. CABLES, PIPES, DUCTS SHOULD BE LOCATED USING THE FOLLOWING TECHNIQUES:
 - a. REFERENCE TO DETAILED LARGER SCALE DRAWINGS AND CABLE ROUTE PROFILES THESE WILL NEED TO BE REQUESTED FROM THE SERVICE PROVIDER AND REFERRED TO DURING THE DESIGN STAGE AND MADE AVAILABLE ON SITE TO SITE OPERATIVES PRIOR TO THE COMMENCEMENT OF ANY GROUNDWORKS
 - b. SUITABLE INSTRUMENTS i.e. GROUND PENETRATING RADAR, CABLE LOCATING DEVICES WILL NEED TO BE USED TO DETERMINE THE LOCATION AND PRESENCE OF UNDERGROUND SERVICES/OBSTRUCTIONS BEFORE EXCAVATION WORKS PROCEED
 - c. SAFE DIGGING TECHNIQUES (HAND EXCAVATION) AS DETAILED IN HS(G) 47 WILL BE NECESSARY TO DETERMINE THE EXACT POSITION OF BURIED SERVICES AND OBSTRUCTIONS BEFORE WORK CAN PROCEED.
 - d. ALL APPARATUS FOUND SHOULD BE CROSS REFERENCED WITH THE DETAILED RECORD PLANS RECEIVED FROM SERVICE PROVIDERS. ANY ABNORMALITIES SHOULD BE REPORTED TO THE PROJECT MANAGER.

KEY

- | | |
|--|---|
| | SITE BOUNDARY |
| | BRITISH TELECOM |
| | BRITISH TELECOM - OVERHEAD |
| | COMMS - VIRGIN MEDIA |
| | INEOS OIL PIPELINE |
| | GAS - LOW PRESSURE |
| | ELECTRICITY - 11kV |
| | ELECTRICITY - 11kV x 3 |
| | ELECTRICITY - LV |
| | FOUL SEWER |
| | SURFACE WATER SEWER |
| | COMBINED SEWER |
| | RISING MAIN |
| | WATER - TRUNK MAIN |
| | WATER - SERVICE MAIN |
| | INEOS PIPELINE - 25M STAND OFF FOR PILING/BORING |
| | INEOS PIPELINE - 6M STAND OFF FOR EMBANKMENTS |
| | INEOS PIPELINE - 3M STAND OFF FOR MAINTENANCE |
| | SGN GAS PIPELINES - 3M STAND-OFF FOR MAINTENANCE |
| | SCOTTISH WATER SEWERS - 3M STAND-OFF FOR MAINTENANCE |
| | DENOTES DISTRIBUTION OF PEAT |
| | DENOTES DISTRIBUTION OF GLACIOFLUVIAL SANDS AND GRAVELS |
| | DENOTES DISTRIBUTION OF ALLUVIUM AND MADE GROUND |
| | DENOTES WINDOW SAMPLER BOREHOLE LOCATION - JANUARY 2017 |

WEST RIVERSIDE LOCH LOMOND
COMPOSITE PLAN OF SHALLOW GROUND CONDITIONS SHOWING
APPROXIMATE DISTRIBUTION OF PEAT, ALLUVIUM, MADE
GROUND, GLACIOFLUVIAL DEPOSITS (SANDS AND GRAVELS) AND
TILL (GRAVELLY SANDY CLAYS)

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Date of 1st Issue	Drawn by K. EWING
As Scale	Checked by G. SCOTT
Figure Number	
35854/3001-003	

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INEOS PIPELINE.

WEST RIVERSIDE SITE

GLACIOFLUVIAL
SANDS AND
GRAVELS

PEAT

ALLUVIUM AND
MADE GROUND

GLACIOFLUVIAL
SANDS AND
GRAVELS

WOODBANK SITE

PEAT

TILL FIRM TO
STIFF SANDY
GRAVELLY CLAY

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 - SCOTTISH WATER SEWERS - 3M STAND-OFF FOR MAINTENANCE



WS01 DENOTES WINDOW SAMPLER BOREHOLE LOCATION - JANUARY 2017

DENOTES DISTRIBUTION OF MADE GROUND WITH DEPTH OF LESS THAN 1.0m

DENOTES DISTRIBUTION OF MADE GROUND WITH DEPTH OF BETWEEN 1.0m AND 2.0m

DENOTES DISTRIBUTION OF MADE GROUND WITH DEPTH OF GREATER THAN 2.0m

WEST RIVERSIDE LOCH LOMOND
SITE INVESTIGATION LOCATIONS WHERE CONTAMINATION WAS ENCOUNTERED AND GROUND GAS CHARACTERISTIC SITUATIONS (CS1 + CS2)

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Date of 1st Issue	Drawn by K. EWING	
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Figure Number 35854/3001-004		

