

Our ref:

DESIGN AND ACCESS STATEMENT

Your ref:

FOR

**INCORPORATION OF AN ABOVE GROUND FUEL TANK
WITH PERIMETER FENCING**

AT

**UNIT 5, CARLTON INDUSTRIAL ESTATE
SHAWFIELD ROAD, BARNSELY**

PREPARED FOR:
BT LTD
BT Centre
81 Newgate Street
London EC1A 7AJ

PREPARED BY:
CLIVE ADAMS ASSOCIATES LTD
Braganza Way
Chelmsford
Essex CM1 6AP

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Design and Access Statement Incorporation of an external fuel tank

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Guidance for Pollution Protection:
Above ground storage tanks

Design and Access Statement

Incorporation of an external fuel tank

1.0 Introduction

The Telecoms Switch site is located in the outskirts of Barnsley in South Yorkshire. The site address is, Unit 5, Carlton Industrial Estate, Shawfield Road, Barnsley, South Yorkshire S71 3HS.

The building is a warehouse style, which was developed into a Switch by T Mobile in 2000, now called Everything Everywhere Ltd.

The site contains six Switch Rooms, a Transmission Room and OMC/Data Room. A security room is located at the entrance, with office and meeting room spaces on two floors, together with welfare facilities. There are two Power Rooms. The Power Room for the main building is located on the ground floor adjacent to Transmission Room 1; the Power Room for the extension building is located in the basement below Switch Room 5.

There are three stand-by generators located inside of the building at ground floor level, with an underground fuel tank located beneath the car parking at the front of the building (Refer to drawings in Appendix B) .

This project comprises removing the old buried oil tank and replacing it with 3No. new above ground oil tanks each with 16,800 litre capacity.

There is already an above ground fuel tank to the rear of the site, which serves the existing external stand-by generator. An Armco barrier is to be installed in front of the fuel tank for safety.

2.0 Scale and appearance

The existing building is a large 2/3 storey portal framed industrial unit with integral offices. (Refer to Photographs in Appendix A)

There are presently 67 N° on-site parking bays, which includes 2 N° disabled parking bays.

There is a loss of 5No. parking spaces from the parking area to the front of the main building as part of these works. However, the remaining 62 No. parking spaces are still more than adequate to cater for the anticipated maximum 20 No. staff and visitors that will need to park at any one time on the site

The new oil tanks are to be located towards the front boundary and are well away from any existing buildings in terms of the possible fire hazard.

The tanks are to be 2.0m high, and so lower than the existing 2.4m high palisade fence that presently runs along the front boundary. The tanks are to be surrounded with a new 2.1m high hit and miss timber fencing.

The existing 21,000 litre buried oil storage tank that is located below the car park at the front of the building is to be removed and the car park then made good to suit.

The existing buried oil pipework is to be removed and new buried pipework is to be installed in to a new services trench with removable precast concrete covers.

Refer to Clive Adams Associates Ltd drawings 8784/01A, 02A and 03A in Appendix C.

3.0 Accessibility

The proposed external oil tanks are to be accessed from the car park via double gates in the new fencing. The occasional oil filling is to be via a delivery vehicle parked in the car park.

4.0 Environmental sustainability

The existing buried oil storage tank has been surveyed and found to be starting to corrode. It has therefore been decided, to prevent any environmental problems in the future, to remove the buried tank and replace it with new tanks above ground level. The new tanks should not need any maintenance for at least 10 years.

The new tanks will be double skinned, with automatic leak detection incorporated within the two skins, as well leak detection located in the new buried pipework. The new tanks will be in accordance with all latest EA requirements. Refer to Appendix C for the Guidance for Pollution Protection: Above ground storage tanks

There is often a problem with people referring to integrally bunded tanks as double skinned. A double skinned tank is constructed to help protect them from collision damage, and so a double skinned tank is not necessarily an integrally bunded tank.

A properly constructed integrally bunded tank is manufactured to meet the regulations for storing oil. The proposed tank, as manufactured by a specialist in oil storage tanks, will comply with all oil storage Regulations. The attached guidance in Appendix C is useful in understanding the requirements; it contains a diagram on p12 to show an example of a properly constructed integrally bunded tank.

When considering the bund size of an integrally banded tank people often interpret the regulations to mean that the volume of the space between the internal tank wall and the bund wall must be 110% of the volume of the internal tank.

This is not correct. The volume of the bund must be 110% of the volume of the internal tank, this is the total volume of the secondary containment tank. If there is a leak from the primary tank into the secondary tank the primary tank will still contain liquid.

The proposed palisade fence is not a secondary containment system. With the banded tank as proposed there is no need for further secondary containment.

However, the palisade fence will protect the tank from accidental impact or collision damage. The tank is located in the car park and so vehicles will be travelling very slowly in this area.

The existing pipework that serves the buried oil tank at present is located within a services trench. This pipework will be removed and new pipework will be located in a new trench. The pipework will be double skinned, with leak detection located within the two skins.

The tank will be surrounded with a 2.4m high palisade fence, which will prevent theft and vandalism. The tanks are complete sealed units and so there is very little that can be stolen. The car park has CCTV, which will deter most attempts of vandalism.

The ancillary equipment, such as fill valves, connections, gauges etc. are all contained within and sealed in to the banded second skin of the tank. The fill pipe is also contained within the banded second skin of the tank. No drip trays are therefore needed beneath the fill point.

There is leak detection system contained between the two skins of the tank, which will set off an alarm within the Security Office if any leaks were to occur in the ancillary equipment.

The area around the proposed tank is impermeable. There is also a petrol interceptor within the existing on-site surface water system.

In the unlikely event of there being an oil spillage during a delivery there is a clean-up procedure in place to deal with any potential contamination. The delivery driver carries an oil spillage kit which will be on hand during the delivery. The Facilities Management team on site also has an oil spillage and containment kit, which contains a 'pontoon' to contain any spills and stop them from entering the surface water system, together with absorbent pads and neutralisers.

The oil storage tank provides oil for the emergency generators. The generators are hardly ever used, except for occasional testing and maintenance, and so oil deliveries are very infrequent.

The oil storage tank has a purpose built and integral base, which will sit directly on to the proposed concrete base. There will therefore be continual structural support for the lifetime of the tank.

After the existing buried tank has been removed the specialist Contractor will carry out a Site Investigation to check whether the surrounding soil has been contaminated. If any contamination is found then remedial actions will be undertaken to remove the contamination, and a validation report then issued to the Planners.

5.0 Community Safety

The proposed oil tank will be securely fixed in position. The gates in to the 2.1m high fenced compound will be locked at all times.

There is 24h hour security which will prevent the Public from entering the site.

APPENDIX A

Photographs 01 - 19





















APPENDIX B

Clive Adams Associates Ltd drawings
8784/01A, 02A and 03A

APPENDIX C

Guidance for Pollution Protection: Above ground storage tanks