



Express Preliminary UXO Risk Assessment

Client	MLM Group
Project	73 Kings Road, Leytonstone
Site Address	73 Kings Road, Leytonstone, London, E11 1AU
Report Reference	EP9958-00
Date	28/10/19
Originator	OG

Assessment Objective

This preliminary risk assessment is a qualitative screening exercise to assess the likely potential of encountering unexploded ordnance (UXO) at the 73 Kings Road, Leytonstone site. The assessment involves the consideration of the basic factors that affect the potential for UXO to be present at a site as outlined in Stage One of the UXO risk management process.

Background

This assessment uses the sources of information available in-house to 1st Line Defence Ltd to enable the placement of a development site in context with events that may have led to the presence of German air-delivered or Allied military UXO. The report will identify any immediate necessity for risk mitigation or additional research in the form of a Detailed UXO Risk Assessment. It makes use of 1st Line Defence's extensive historical archives, library and unique geo-databases, as well as internet resources, and is researched and compiled by UXO specialists and graduate researchers.


The assessment directly follows CIRIA C681 guidelines "Unexploded Ordnance, a Guide for the Construction Industry". The document will therefore assess the following factors:

- Basic Site Data
- Previous Military Use
- Indicators of potential aerial delivered UXO threat
- Consideration of any Mitigating Factors
- Extent of Proposed Intrusive Works
- Any requirement for Further Work

It should be noted that the vast majority of construction sites in the UK will have a low or negligible risk of encountering UXO and should be able to be screened out at this preliminary stage. The report is meant as a common sense 'first step' in the UXO risk management process. The content of the report and conclusions drawn are based on basic, preliminary research using the information available to 1st Line Defence at the time this report was produced. It should be noted that the only way to entirely negate risk from UXO to a project would be to support the works proposed with appropriate UXO risk mitigation measures. It is rarely possible to state that there is absolutely 'no' risk from UXO to a project.





Risk Assessment Considerations	
Site location and description/current use	<p>The site is located in Leytonstone, within the London Borough of Waltham Forest.</p> <p>It is bordered by Kings Road to the north-east, residential buildings to the south-east and north-west, with structures associated with St John Ambulance to the south-west. The site is occupied by an area of hardstanding currently in use by the aforementioned ambulance service.</p> <p>The site is approximately centred on the OS grid reference: TQ 39193 87587.</p> 
Are there any indicators of current/historical military activity on/close to the site?	<p>In-house records do not indicate that the site footprint had any former military use. No features such as WWII defensive positions, encampments or firing ranges are recorded to have been located at or in the immediate vicinity of the site. In addition, no information of ordnance being stored, produced, or disposed of within the proposed site boundary could be found.</p> <p>The closest recorded Heavy Anti-Aircraft (HAA) battery was situated approximately 2.2km to the south-east of the site. The conditions in which unexploded anti-aircraft ordnance may have fallen unrecorded within the proposed site are analogous to that of aerially delivered Luftwaffe bombs. For a discussion on these conditions, see the relevant sections below.</p>
What was the pre- and post-WWII history of the site?	<p>According to historical OS mapping dated 1916, the site was mostly occupied by open ground, with a small building located within its southern section. Residential structures border the site to the north-west and south-east, with King's Road to the north. Further open ground is to the immediate south of the site location fronting Queen's Road. Terraced residential buildings occupy the majority of the surrounding area. 1939 OS mapping indicates the small structure within the site to no longer be present. A new building is now located to the south-west of the site.</p> <p>Post-WWII OS mapping dated 1953-55 indicates the site to have remained occupied by unoccupied ground. Additional development is notable to the south-west of the site. No other significant changes are present in the immediate vicinity.</p>
Was the area subject to bombing during WWII?	<p>During WWII, the site was situated within the Municipal Borough of Leyton, which sustained an overall very high density of bombing with an average of 197.8 items recorded per 1,000 acres according to official Home Office statistics. This included 419 high explosive (HE) bombs, 12 parachute mines, 28 oil bombs, 18 phosphorous bombs, 24 V-1 pilotless aircraft and 12 V-2 long range rocket bombs.</p> <p>London bomb census mapping does not record any bomb strikes to have fallen within the site boundary. The closest bomb strike is plotted approximately 25m north-east of the site on the other side of Kings Road. Local Leyton bomb mapping was also checked, and does not record any bombing incidents on site. The closest recorded HE strike is located at a slightly further distance at approximately 55m north of the site, whilst an exploded anti-aircraft shell is noted approximately 30m south-west over Queen's Road.</p>



Is there any evidence of bomb damage on/close to the site?	As historical OS mapping indicates that the site was occupied by open land prior and post-WWII, it has not been possible to assess signs of change that may be indicative of bomb damage. However, no significant changes such as cleared ground are evident in the immediate vicinity. High-resolution WWII-era aerial photography would be required in order to assess the exact wartime composition of the site.
To what degree would the site have been subject to access?	Given the site was occupied by open ground, it is not anticipated to have received particularly frequent access. However, due to the proximity of residential structures and roadways, general monitor of the site and area is still likely.
To what degree has the site been developed post-WWII?	Little significant redevelopment has occurred on site post-WWII.
What is the nature and extent of the intrusive works proposed?	The nature and extent of works proposed was not available at the time of writing.

Summary and Conclusions

During WWII, the site was situated within the Municipal Borough of Leyton, which sustained a very high density of bombing with an average of 197.8 items dropped per 1,000 acres. London bomb census mapping does not record any bombs to have fallen within the site, whilst a strike is noted approximately 25m north-east. Local mapping of the Leyton area plots this strike further north, with an anti-aircraft shell plotted approximately 30m south-west. No significant areas clearance or 'ruin' are notable in the vicinity.

Due to the site being occupied by open ground during WWII, it is not thought likely that it would have been accessed frequently. However, given the proximity of residential structures and roadways, as well as the apparent lack of damage in the vicinity, general monitor of the site is still likely to have been high. As such, post-raid checks for evidence of UXO are likely to have been carried out.

Recommendations

Given the findings of this preliminary report, it is recommended that **no further research** be undertaken for this site. Whilst it would be possible to conduct a Detailed UXO Risk Assessment to obtain and analyse additional sources such as high-resolution WWII-era aerial photography and local archival information, it is not thought likely that the acquisition of such records would significantly alter the findings of this report.

If the client has any anecdotal or empirical evidence of UXO risk on site, please contact 1st Line Defence.





It should be noted that although the risk from unexploded ordnance on this site has been assessed as low/minimal, this does not mean there is 'no' risk of encountering UXO. This preliminary report has been undertaken with due diligence, and all reasonable care has been taken to access and analyse relevant historical information. By necessity, when dealing historical evidence, and when making assessments of UXO risk, various assumptions have to be made which we have discussed and justified within this report. Our reports take a common-sense and practical approach to the assessment of UXO risk, and we strive to be reasonable and pragmatic in our conclusions. As referenced, it would be possible to undertake further research into this site, but based on the evidence to hand, this is not deemed strictly necessary, and no reasonably justifiable requirement for proactive on-site mitigation has been identified.

It should however be stressed that if any suspect items are encountered during the proposed works, 1st Line Defence should be contacted for advice/assistance, and to re-assess the risk as necessary. Furthermore, we would recommend that ground personnel are always made aware of the potential for encountering UXO, what to look out for and what to do in the unlikely event that a suspect item is encountered, and that a UXO Risk Management Plan is put together for the proposed works. We would be happy to provide a template and guidance for this – contact us on 01992 245020. Should the scope of works change or additional works be proposed, 1st Line Defence should be contacted to re-evaluate the risk.

