

To Peter Kenny
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20 August 2024

Dear Peter,

Please find below the outcome of the DoW CoP Insight Service review as per the signed proposal form reference: IS 89730 on 10th June 2024.

1. Objective of this review

Peter Kenny from Campbell Reith contacted the DoW CoP Insight Service to review the key documents related to the Pyramid Park located at off Market Street, Bury, BL9 0BG.

The aim of this review is to assess whether the site settings, materials contamination and intended reuse on the site would be within the DoW CoP scope due to some historical features and previous earthworks movement on the site. The review will also consider if materials within landscaped features and general made ground across the site should be considered as “waste” based on the evidence for them being discarded or intended to be discarded.

2. List of documents

The review included the following documents:

- a. Desk Study Report Ref. 13819-CRH-XX-XX-LQ-RP—0001 Desk Study dated March 2022;
- b. Phase 2 Interpretative Report (Contamination)/ Land Quality Statement Ref: 13819-CRH-XX-XX-RP-LQ-0002 LQS Report, dated July 2022;
- c. Pyramid Park Land Quality Statement Ref: 14111-CRH-XX-XX-RP-LQ-0001 LQS Report, dated April 2024; and
- d. Pyramid Park Enabling Works Remediation Strategy Ref: 14111-CRH-XX-XX-RP-LQ-0001-P01_Rem Strat DRAFT May 2024.

3. Summary of site/setting

The site is currently used a public open space three large pyramids to the west and features one small triangular / pyramid shaped concrete structure. The eastern area of the site, around a former lake, is designated as a Site of Biological Importance (SBI).

The current site features were created following the site clearance in the 1970's of the former railway sidings, goods sheds, and cattle pen in the west of the site and former abattoirs to the northwest. In addition, extensive ground workings to reduce site levels around 1890's appear to have taken place to facilitate the expansion of the railway sidings.

The site is surrounded by residential properties to the southwest and east of the site, a college to the north and south, a hotel located northwest and car parks to the west and northeast.

The desktop study (Groundsure report) refers to an 'On-site' historical landfill (pre-permitting and based on historical mapping) and potential on-site infilled land. Several landfills for inert waste were also identified in closed proximity to the site.

4. Our observations

The document review focusses on any evidence for discarded materials from previous site development or evidence of material imported to site 'as waste', from material forming the pyramids and beyond.

Observation on the pyramid structures:

The pyramids features are estimated to contain approximately 6,000m³ of material. The site investigation targeted the pyramids for characterisation of the materials with 20 no. samples from a minimum of three trial pits from each pyramid.

The trial pit records, and photographic evidence reported soil and stones with some ash, coal, clinker, and brick fragments which can be associated with typical made-ground from previous site uses.

Site wide observations:

TP04A log reports abundant fragments of plastics and tiles. This location was investigated further with shallow trial pits (SA01 and SA02), neither of which contained plastics.

It is understood that limited investigation was conducted within the form pond area and that further trial pits will be required to revise the site-specific risk assessment and associated remediation strategy.

Overall, chemical analytical results were assessed to be suitable for reuse as general fill beneath roads, buildings and in landscaped areas under suitable cover. We support the following statement from the Land Quality Statement Report:

- *11.3.5 Based on the chemical test results, it is anticipated that the soils from the pyramid structures, following processing and/or treatment, will generally be suitable for use as general fill beneath Pyramid Park, Bury Land Quality Statement P01 69 roads, buildings and in landscaped areas under suitable cover. Compliance testing of the Made Ground will be required to confirm its suitability.*
- *11.3.6 Made Ground materials encountered in several locations were also found to contain coal, ash, clinker and slag. Hydrocarbon odours were also reported during the intrusive works. It is not proposed to reuse hydrocarbon impacted materials within areas of proposed buildings without further risk assessment, compliance sampling and testing, noting that the proposed excavation and processing of the Made Ground will result in a degree of degradation of organic contaminants.*
- *11.3.7 Imported materials for soft landscaped areas will require provision for testing in accordance with the Remediation Specification and compliance with an agreed set of limiting values will be required. Records as detailed within the Remediation Specification and/or Groundworks Specification should be maintained to certify the source, chemical suitability and appropriate placement of the soils.*
- *11.6.1 In addition to the requirements noted above, a watching brief should be maintained throughout the groundworks in order to identify any previously undetected areas of contamination, such as asbestos containing materials and/or stained/odorous soils. These should be assessed by an Environmental Consultant if identified.*

- 11.6.2 Hydrocarbon odours were encountered in the Made Ground soils at 5 no. locations within the vicinity of the pyramid structures and northern boundary. Hydrocarbon-stained soils and a sheen on perched groundwater was also encountered in TP103. It is recommended that impacted soils are excavated and stockpiled for testing prior to reuse if suitable or offsite removal if deemed unacceptable material.

5. Exclusions

The DoW CoP Insight Service did not review any elements or conclusions in relation to gas assessment, gas protection measures, groundwater assessment, building foundations, ground improvement, piling or floor slabs requirements.

6. Evidence for and against use of the DoW CoP

In summary, we noted the following key elements in the documentation provides:

In support of material reuse under DoW CoP	Against material reuse under DoW CoP
High frequency of testing (1/300m ³) for the pyramid structures with no evidence of imported waste. Materials reused from the Site of Origin is unlikely to be considered a 'waste' as an intended use is demonstrated by the unusual features erected on the site. It is considered that the materials were NOT discarded in that context.	TP04A – Plastic content might indicate discarded material: these materials are not suitable for reuse under DoW CoP.
Site risk assessment and conceptual site model do not prevent reuse of materials characterised to date.	Desktop study (Groundsure report) reporting an historic landfill on-site – Campbell Reith sought and gained clarification from Groundsure confirming this was from their automated review of historical mapping, and the term historical landfill is inadvertently including other similar features (ie: railways cutting in this instance)
Further Site Investigation to be conducted to characterise the former pond area (this should remove any further uncertainties on potential discarded materials on the site).	Section 8 of the LQS report entitled "Waste": materials are currently assessed for waste classification (these would only be a waste if the material is surplus or intended to be discarded).
Watching brief and control measure proposed in the Remediation Strategy are suitable.	Limited information on the impact of Site of Biological Importance from the material reuse in the former pond area, based on the information provided for this review. We subsequently been made aware that the Council and project team are in the process of applying for the SBI status to be declassified.
The four factors of the DoW CoP have been considered: Factor 1: Protection of human health and protection of the environment Factor 2: Suitability for use, without further treatment Factor 3: Certainty of Use Factor 4: Quantity of Material (to be confirmed).	

7. DoW CoP use on brownfield sites

The reuse of impacted materials on brownfield sites is a sustainable approach to land redevelopment and in line with the current regulations and guidance (i.e. the Land Contamination Risk Management (LCRM)). The DoW CoP has been used on numerous sites across England and Wales since 2008.

8. List of steps required

To fulfil the requirement of the DoW CoP, the following elements will need to be completed:

- Additional site investigation in the former pond area as specified in Campbell Reith Draft Remediation Strategy (Ref: 14111-CRH-XX-XX-RP-LQ-0001-P01_Rem Strat DRAFT);
- Conceptual Site Model (CSM) and Draft Remediation Strategy to be reviewed to ensure all source-pathway-receptors are considered;
- Development platform, formation levels and earthworks specifications to be clearly defined;
- Planning application approval received;
- Land Quality Statement and Remediation Strategy fully approved by the relevant regulators;
- Any other relevant planning conditions approved;
- Materials Management Plan to be developed and submitted to QP for review;
- No objection obtained from the local EA waste officer (as stated in table 2 of the DoW CoP Version 2);
- Submission of DoW CoP Declaration for the volume of materials to be reused in line with site cut and fill / earthworks designs;
- Full implementation of control measures and materials tracking; and
- Submission of a Verification Report.

9. Conclusion

Further to the observations made on the material type and quality (correlating to historical site use), there is no clear evidence that the materials were discarded during historical site development and landscaping activities. The materials would therefore be unlikely to be considered 'waste'. If all the regulatory steps and DoW CoP requirements are followed, particularly with 'no objection' obtained from the local waste regulator, CL:AIRE would support the use of the code to achieve sustainable soils management for the redevelopment of Pyramid Park.

10. Additional suggestions

In the event of doubt, CL:AIRE Initiatives has previously requested independent review of projects from Qualified Person arrange via CL:AIRE to provide additional assessment. This means the project team would have no direct contact with the QP and their assessment decision would be final. It is considered the route which provides the highest degree of quality and can be arranged upon request.

DoW CoP training is available on a regular basis. The next training course in Manchester will be held on 17th September and 26th November. If this is of interest, we can offer spaces to any Local Officers at a discounted rate.