

**From:** Mark Risner [REDACTED]  
**Sent:** 15 April 2019 10:03  
**To:** Meynell, Charlotte  
**Cc:** [REDACTED]  
**Subject:** HPRM: Fwd: 1557- Belmont Street, Chalk Farm - Updated P2/3E report  
**Attachments:** [1557-P23E-1-A\\_Part1.pdf](#); [1557-P23E-1-A\\_Part2.pdf](#)  
**Follow Up Flag:** Follow up  
**Flag Status:** Flagged  
**Categories:** Red Category  
**Record Number:** PLD/19/36518

Hi Charlotte,

I received the revised report from the environmental engineers which included the sulphate analysis and the revised conceptual risk assessment which reflects those findings. I also asked our structural engineer to comment on sulphate findings, and the required concrete mix needed, and I have copied his email below. We also agree to lay the slab on a clean substrate and the whole process will be documented as per the verification checklist.

If you require anymore information please just let me know.

Best,

Mark

----- Original Message -----

**From:** david assoc [REDACTED]  
**To:** Mark [REDACTED] Dan Risner [REDACTED]  
**Date:** 15 April 2019 at 09:49  
**Subject:** 1 Belmont Street NW1 - soils report.

Dear Mark and Dan,

Note below re the sulphates analysis on the soil samples taken at Belmont St.

The soils investigation tests for the presence of sulphates in the soil samples taken indicated a maximum content of water soluble sulphate SO<sub>4</sub> of 1170mg/kg.

This level of water soluble sulphate falls within class DS-2 as designated in Table C2 'Aggressive chemical environment for concrete (ACEC) classification for brownfield locations' of BRE Special Digest 1:2005. The levels of sulphates are therefore relatively low and ground water flow rates given the clay sub soil would be considered relatively static i.e. less than 10<sup>-7</sup> M/day. The ACEC class for location (level of sulphates present combined with ground water conditions) would be AC-2 or AC-2z and given a life expectancy for the building of 50 - 100years then table D1- 'Selection of the DC class and number of APMs (additional protective measures) for concrete elements where the hydraulic gradient due to ground water is 5 or less: for general use insitu concrete' would indicate a DC-1 classification with respect to the specification of an appropriate insitu concrete mix.

Then by making reference to table D2 - 'Concrete qualities to resist chemical attack for the general use of insitu concrete: limiting values for composition', provides for a concrete mix having a minimum cement content of 360Kg/Mcu, a maximum aggregate size of 20mm and a free water-cement ration of 0.45.

I would therefore recommend that this mix is used for both the basement ground bearing slab and the concrete blinding to the hardcore sub base build up below.

David Salter CEng. M.I.Struct.E.

----- Original Message -----

From: Despoina Athanasiou [REDACTED]  
To: Mark Risner [REDACTED]  
Date: 11 April 2019 at 15:27  
Subject: 1557- Belmont Street, Chalk Farm - Updated P2/3E report

Hello Mark,

Please find attached the updated P2/3E report.

If you have any questions feel free to contact me.

Kind regards,

*Despina Athanasiou*

Environmental Consultant

BEng MSc



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