

Brock Keep, 571 Oxford Road, Reading



Photograph 12 - Damp marks and deterioration of ceiling finish below eye bolts NE turret



Photograph 13 - Damp marks and deterioration of ceiling finish below eye bolts SW turret



Photograph 14 - Asphalt upstand detached from wall, exposing bath stone



Photograph 15 - Cracking to underside of barrel vaulted roof slab



Photograph 16 - Cracking to underside of barrel vaulted roof slab



Photograph 17 - Damp brickwork beneath beam bearing on East elevation, 3rd floor



Photograph 18 - Crack to underside of 3rd floor slab, above doorway to the North East tower



Photograph 19 - Crack to bed joint beneath 2nd floor slab over NW chamfered corner



Photograph 20 - Cracking to the underside of the First-floor slab



Photograph 21 - Cracking to the stone capital around the beam bearing



Photograph 22 - Cracking to walls beneath beam bearing



Photograph 23 - Damp external wall below first floor



Photograph 24 - Cracking to tower wall beneath water tank beam



Photograph 25 - Brick dislodged over door lintel from NE tower



Photograph 26 - Timber post supporting the veranda is damp.

8.0 Appendix C - Roofing enquiries

1) Email correspondence with Bauder Roofing Solutions

Hi Oliver

Thank you for the photos.

I guess the first thing I should mention is that we do not offer asphalt – I could however point you in the right direction of some good asphalt installers who are a dying breed! I would however add that an asphalt roof with chippings is not an ideal walking surface so that would not really work for a heavily trafficked area.

From what I can see, you really have three options:

Option 1 – inverted BTRS

Strip the asphalt back down to the structural deck
Prime
Torch down G4E underlay + K5K mineral capping sheet
Install inverted insulation
Ballast down with slabs or decking on a pedestal support system

Option 2 – inverted Bakor hot melt

Strip the asphalt back down to the structural deck
Prime
Install 2 layers of Bauder Bakor hot melt with a polyester reinforcement
Install AP1 bituminous protection layer
Install inverted insulation
Ballast down with slabs or decking

Option 3 – warm roof BTRS

Strip the asphalt back down to the structural deck
Prime
Torch down VB4 bituminous vapour barrier
Install PIR insulation
Install G4E underlay + K5K mineral capping sheet
Finish with either slabs or decking on a pedestal support system

I would definitely not recommend going with a single ply membrane – it just does not offer the necessary robustness that bitumen does.

I am attaching the relevant brochure sections for our Bauder Total Roof System (BTRS) and our Bakor hot melt system.

Are the falls in the deck – I would assume so?

I hope this provides you with a starting point. More than happy to meet you on site or in your offices to talk this through, should that be helpful.

With best regards

Catherine Scott
Area Technical Manager

From: Oliver Goodyear [<mailto:oliver.goodyear@mapl.co.uk>]
Sent: 13 February 2018 13:28
To: Catherine Scott <c.scott@bauder.co.uk>
Cc: John Staves <john.staves@mapl.co.uk>
Subject: Brock Keep, Reading - Roofing options enquiry [Scanned][Spam score:8%]

Hi Catherine,

We have a project we would like to discuss and thought it would be good to hear from Bauder to see if you have any ideas on an appropriate scheme.

We have an existing asphalt flat roof over a fort type building. Currently the roof is used for service only and is completely covered in scaffolding (which is holding up a crash deck around the parapets). This scaffolding has been in place for more than 5 years and is fixed down to the roof slab with eyebolt fixings, penetrating the asphalt. Its assumed likely that water will have breached the existing system and it would probably need replacing to suit the clients aim with this space. Plus the asphalt upstand with the bricks is also in poor condition

The plan is to convert this area into a rooftop café and we wanted to discuss roof finish options in place of the existing system. Please note also that the Architect is keen to introduce insulation into the system, but would like to do this from above as the ceiling below is barrel vaulted (forming the fall on the roof), which the client is keen on.

As we see it the options are as follows;

1. Strip of the existing finish and lay a new asphalt onto rigid insulation. Asphalt finished with appropriate white chippings (clients preferred choice due to durability and up keep?
2. Insulation and single ply membrane over the existing system. Unsure whether this finish will have suitable durability for foot fall.
3. Option 2 with a timber/composite deck laid over the membrane.

Please note we are open to suggestions, if you think there is a more suitable option.

I've attached photographs and layouts to give you an idea, but let me know if you need further information. Otherwise we look forward to hearing from you.

Kind regards

Oliver Goodyear

9.0 Appendix D - Crack Monitoring Schedule

Crack Monitoring Schedule - Brock Keep

- Crack monitoring to be carried out in the locations scheduled below, to verify whether cracking is progressive and if so, to what extent.
- Crack monitoring to be carried out using Avongard Tell-Tales, strictly installed in accordance with Avongard's written instructions (provided with the product).
- Standard tell-tale type, can be bought on Avongard's website, 5No. required in total
<http://www.avongard.com/products/category/1/tell-tales/P-00001/standard-tell-tale>



- Tell-tales are to be fixed to walls and slab with Araldite rapid epoxy. This is to minimise damage to the building fabric.

<http://www.avongard.com/products/category/3/accessories/P-00084/araldite-rapid-epoxy-24ml>

- It is recommended that the crack monitor is photographed directly after it has been installed and then photographed monthly for at least a 6-month programme. Photographs are to be sent to Michael Aubrey Partnership

Monitor Locations

- 1) Underside of the Barrel-vaulted roof slab, over the North West art studio on the third floor



- 2) Crack in external wall near underside of 3rd floor slab. Over doorway going through to the North east turret at 2nd Floor, on the art studio side



- 3) Monitor applied to crack in chamfered section of wall on the first floor, in the North east corner (Cleaning store/WC)



- 4) Crack to underside of first floor slab corner over the corridor



5) Crack to stone capital first floor, in the ground floor corridor



10.0 Appendix E - Mark Lovell Design Engineers Report