

Your ref: 151537 (EA ref: WA/2015/121402/01-L01)

Our ref: 32704/CBH/SCD/RMF



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Attn: Jonathan Markwell

Dear Jonathan

**RE: ORACLE RIVERSIDE, READING, RG1 2AG
RESPONSE TO ENVIRONMENT AGENCY LETTER OF 02/11/15**

We are writing to address the points raised in the second Environment Agency (EA) consultation response dated 17th December 2015, in relation to the planning application for a proposed restaurant unit and public realm improvements in the Riverside area of the Oracle Shopping Centre.

Despite the clarifications provided in our previous response dated 3rd November 2015, the EA advise they are maintaining their objection to the scheme and they set out three reasons, which are set out in *italics* and addressed in immediately below:

1 – Flood Risk Vulnerability

"The site lies within Flood Zone 3b (functional floodplain) in accordance with the Reading Borough Council Strategic Flood Risk Assessment (SFRA) and our Flood Risk Mapping. Functional floodplain is defined as land where water has to flow or be stored in times of flood, in accordance with Table 1 'Flood zones' of the Planning Practice Guidance.

The proposed development is defined as less vulnerable... In accordance with Table 3 'Flood risk vulnerability and flood zone 'compatibility' of the Planning Practice Guidance, less vulnerable development within Flood Zone 3b should not be permitted.

As stated previously, this 'in principle' objection from the EA is purely a point of policy and does not reflect any consideration of the 'technical' impacts of the proposals. The justification for the development addressing this specific issue is set out in the submitted FRA, the Technical Note submitted to Reading Borough Council (RBC) in July 2015 and the previous PBA response to the EA of November 2015. As such, we will refer to those documents to address this point.

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2 – Flood Risk Assessment

"The FRA provides some detail about the impact of flooding on the development and elsewhere. We are not satisfied that this is robust. We acknowledge that ...there will be limited opportunity to provide compensatory flood storage. This is recognised in the design approach which promotes the use of voids to ensure floodplain storage is maintained...."

Although under the umbrella of 'Flood Risk Assessment', review of the EA response confirms that the key concern is the impact on floodplain storage and how this has been taken into account.

*"There is a floodplain compensation scheme in section 5.2 of the FRA. However, ramps, steps and planters are the only part of the built development that are been considered. **The raised pavilion area, decking and steps on the north bank and the raised exhibition area on the south bank have not been considered**".*

This is incorrect. All 'solid' elements of the raised pavilion area, decking and steps have all been considered and they are shown on the analysis by Barton Willmore provided in Appendix B of the FRA (i.e. the **'Flood Diagram' plan** and the associated **'Flood Areas' calculations**, both of which are appended for clarification). The plan clearly shows the supporting pillars below both exhibition space and the pavilion, and the extent of the proposed timber steps.

Section 5.2 of the FRA does not provide an assessment of the impact of supporting structures which are located within the void

Section 5.2 of the FRA provides a simplified overview of the net gains/losses in floodplain storage resulting from the development, based the detailed information in the aforementioned Barton Willmore data appended to the report. The plan clearly shows the support structure has been taken into account in the analysis.

In conclusion, the analysis includes for all 'solid' elements of the proposed development.

"We would expect voids to be designed so that they remain fully open up to the design flood level to ensure flood water enters and leaves the void effectively. There are timber steps on the west side of the proposed pavilion and also encasing the exhibition area. It is not clear how the mitigation measures will function based on the current design proposal"

The void openings in the scheme were developed based on previously issued guidance from the EA which specified a minimum opening of 1 metre for every 5 metres of wall. This has been applied in the design of the timber steps (see **Barton Willmore drawing RG-L-300-02** attached) and the details of the void openings below the pavilion are shown on the **Object Space Place drawings 97.300D and 97.301D** (attached for reference). The openings are in accordance with the EA-advised 1:5 ratio of open area to perimeter wall (15mm opening for every 60mm timber) in both instances.

"If the above details for voids are submitted the local planning authority will need to consider if they are willing to accept the use as voids as mitigation for the loss of floodplain storage and that an adequate maintenance plan is in place to ensure the voids remain open for the life time of the development."

This is acknowledged and, as stated in the original FRA, the voids (and the void openings) will be maintained as part of the ongoing Oracle Shopping Centre maintenance programme to ensure they remain fully open and operational at all times.



“Regarding the new floating reed beds in the River Kennet we don’t consider these to be appropriate as in high flows these could become detached and cause blockages downstream. This could lead to increased flood risk”

One of the key objectives of this proposed development is an improvement to the waterside environment in this section of the River Kennet. Due to the canalised nature of the watercourse through the area, the options for enhancement to the channel itself are limited but the provision of the reed beds/floating baskets provides a clear enhancement to the channel by softening the edge. This is a reasonably common detail and indeed we are aware of other urban schemes where the EA have specifically recommended using ‘floating edge ecosystems to provide riparian in channel habitat improvements’.

We feel the potential flood risk has been inappropriately assessed by the EA. Firstly, the probability of floating planters becoming detached is related to (a) the probability of a flood occurring (i.e. the return period of an event) and (b) the probability of the system ‘failing’ in some way and becoming detached during the flood. If the planters and fixings are correctly installed and maintained then the probability of failure is very small. Furthermore, they would be in a highly visible location and observed 365 days of the year by Oracle staff, workers and the public. Therefore, any defects, vandalism or other issues can be identified and rectified before a flood event occurs and the probability of failure during a flood event reduced to extremely low.

The proposals indicate the proposed planters protrude only about 1m into the approximate 15m wide watercourse and they are narrower than the existing planting shelf to the west (which the EA want us to pay to lower, despite it coinciding with a meander bend in the river). Whilst there may be some small risk of the planters being damaged by boats, they would be robustly designed to allow for a reasonable amount of contact. The risk of the riverside planters collecting floating debris could be mitigated by tapering or rounding the ends of the planters into the banks, so that debris slides off rather than snags and collects (the latest Barton Willmore drawing of the planter, **RG-SK-L-33**, is attached for reference).

Even in the ‘worst case’, if floating debris were to lodge upstream of the Duke Street bridge then the direct receptor of any potential upstream increase in flood levels would be the Oracle itself – and it is for this reason that a rigorous regime of inspection and maintenance of the planters by Oracle staff would be an integral part of the proposals.

In conclusion, the potential that the floating planters cause a flood risk is negligible and the provision of the planting is wholly in accordance with the overall aspiration to enhance the urban riverside location – discussed further below.

3 – Nature Conservation

“We maintain our nature conservation objection. We are still reviewing the latest information regarding this objection and will follow on from this letter with a further response about the ecology of the River Kennet”

Further clarification on the wider site constraints to ecological enhancement were set out in the previous PBA response and it is important to reiterate that this proposal will provide an enhancement over the existing situation (as the EA acknowledged in the previous response) and there is no policy justification for seeking ‘more’ of a biodiversity enhancement.

Notwithstanding the above, Nature Conservation will be addressed under separate cover.



We hope the above satisfactorily addresses the issues raised by the EA. We would be happy to meet RBC to discuss further if there are any outstanding concerns with regard to the scheme.

Yours sincerely

Richard Fisher
Associate
For and on behalf of
PETER BRETT ASSOCIATES LLP

cc. Michelle Kidd, Environment Agency

Encls.

- Object Space Place drawing 97.300D – Proposed Section AA
- Object Space Place drawing 97.301D – Proposed South Elevation
- Barton Willmore 'Flood Diagram' plan and 'Flood Areas' calculations
- Barton Willmore Drawing RG-L-300-02 – Timber Clad Steps
- Barton Willmore Drawing RG-SK-L-033 – Riverside Planter Detail