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Joe Harding

Berkeley Homes (Oxford & Chiltern) Limited

Berkeley House,
Farnham Lane,
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14 July 2020

Dear Joe,

Re: 53-55 Vastern Road – Response to Environment Agency

Introduction

Following a meeting with the EA on 11th June, it was agreed that eb7 would provide more additional information relating to impact of the proposed development on the River Thames and in particular, the impact of the amount of sunlight on the marginal vegetation area on the southern bank of the River Thames. Previously the assessment focused on amenity spaces surrounding the site and did not provide sufficient detail to determine the effects comparatively on the River Thames as a result of the proposals.

We have managed to obtain the detailed bridge model from Reading Borough Council in order to accurately model the sunlight exposure on the River Thames between 21st March (equinox) to the 21st September (equinox) which shows the areas where shading occurs in both the existing and proposed scenarios.

Information and Assumptions

In order to inform the modelling of the river bank and Christchurch Bridge, information within the planning application for the bridge was used, as well as an accurate 3D computer model obtained from the bridge designers. We have assumed that the river level would be at its highest, meaning the obstruction from the existing bank itself would be minimised, thus presenting an absolute worst case in terms of additional effect as a result of the proposed development. Should the river level be lower, the exiting shadow would be greater and therefore the difference as a result of the proposal less. As these assessments are primarily during the summer months, and to simplify the assessments, trees have been assumed to be in full leaf with tree heights and canopies estimated using photographs.

Sunlight Availability

A sunlight availability assessment was run across the surface of the river to assessment the impact resulting from the proposed development. This shows the hours of sun the river will receive each month

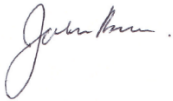
from 21st March (equinox) to 21st September (equinox) at a 1 to 6 hour + scale; this also coincides with the growing season which we mentioned at the meeting in June. These images show that there is already overshadowing and a lack of sunlight exposure to the marginal planting on the southern river bank and as a result, the increases as a result of the proposed development are minimal. Where there are reductions, these are generally not for more than 1.5 hours during the day over the period from 21st March to 21st September.

Summary

The assessment provides further details on shadowing and sunlight exposure levels to the river Thames in the existing and proposed conditions. The assessments show that many marginal areas on the south bank already see a level of overshadowing from the bridge, bridge access structures and existing buildings and that the proposed development would not significantly add to the current effects, particularly in relation to the marginal vegetation.

I hope that the information provided is useful in describing the current and likely affects as a result of the proposed development and if you would like any additional information or clarifications I would be happy to help.

Yours sincerely,

A handwritten signature in dark ink, appearing to read 'John Barnes'.

John Barnes



Appendix 1

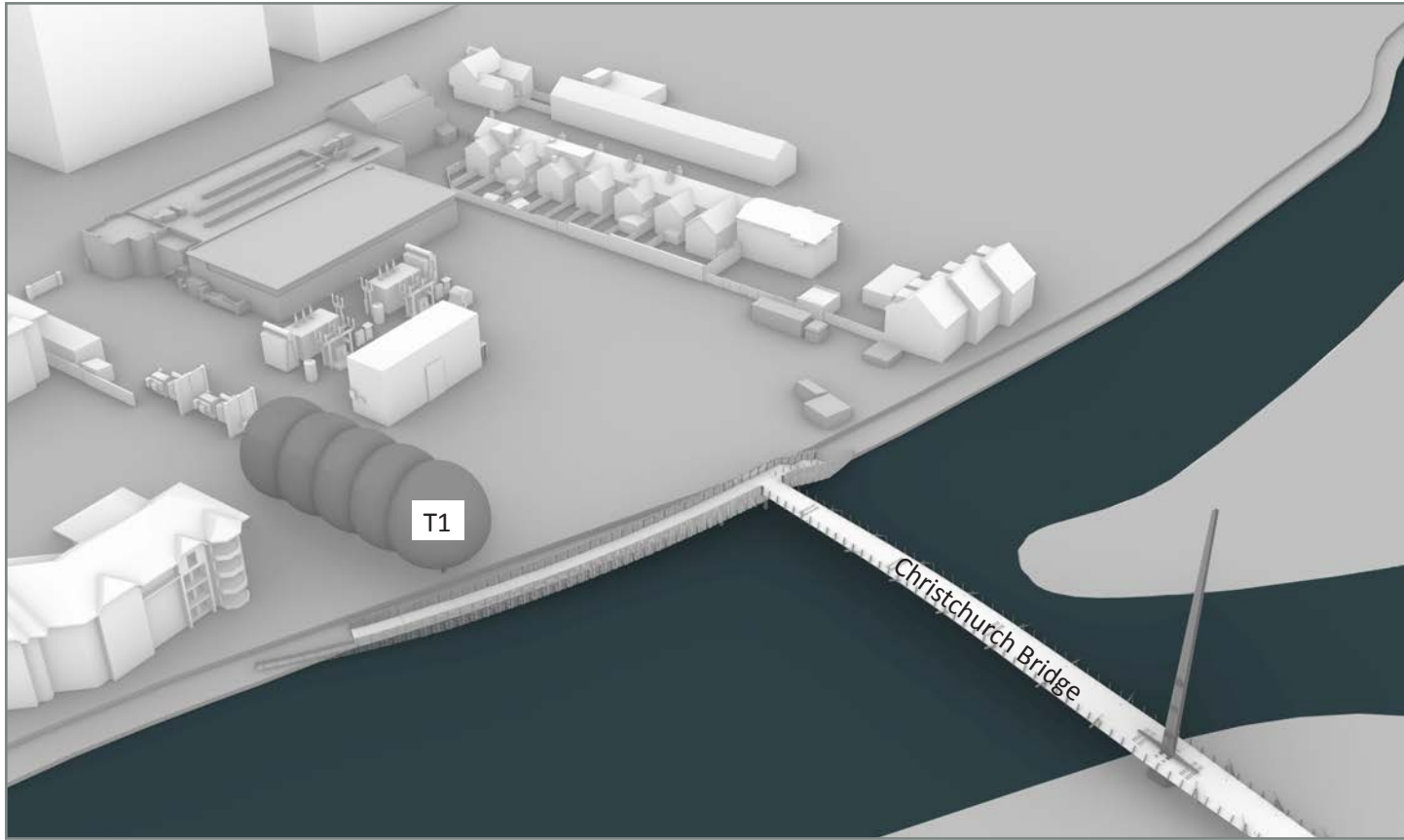


Fig. 1: Existing - Bird's Eye View



Fig. 3: Proposed - Bird's Eye View

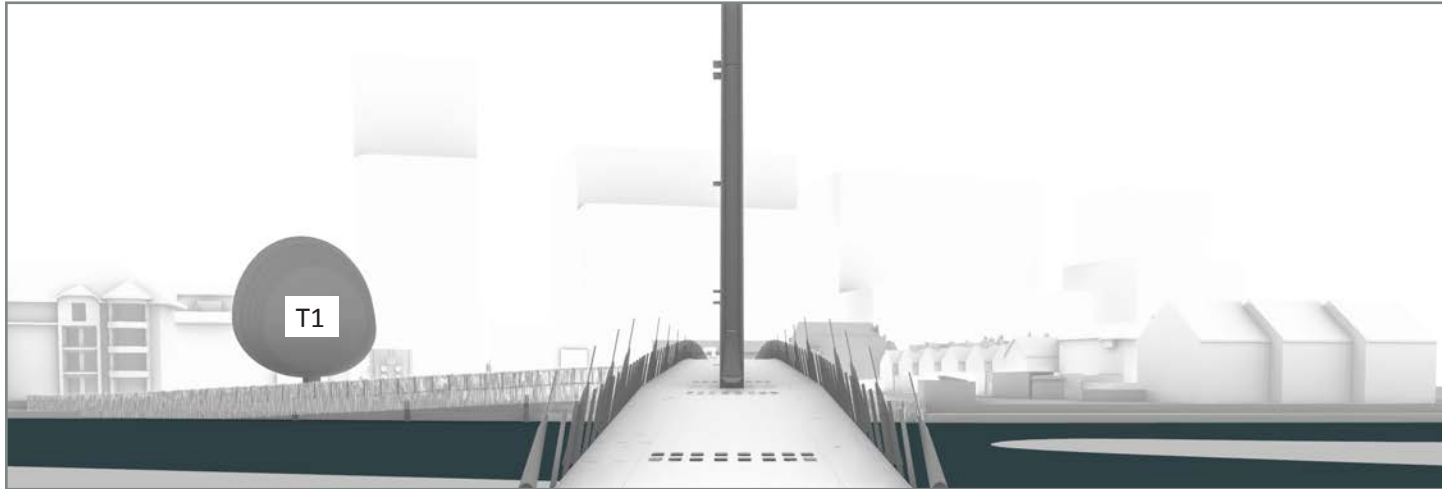


Fig. 2: Existing - View from Bridge

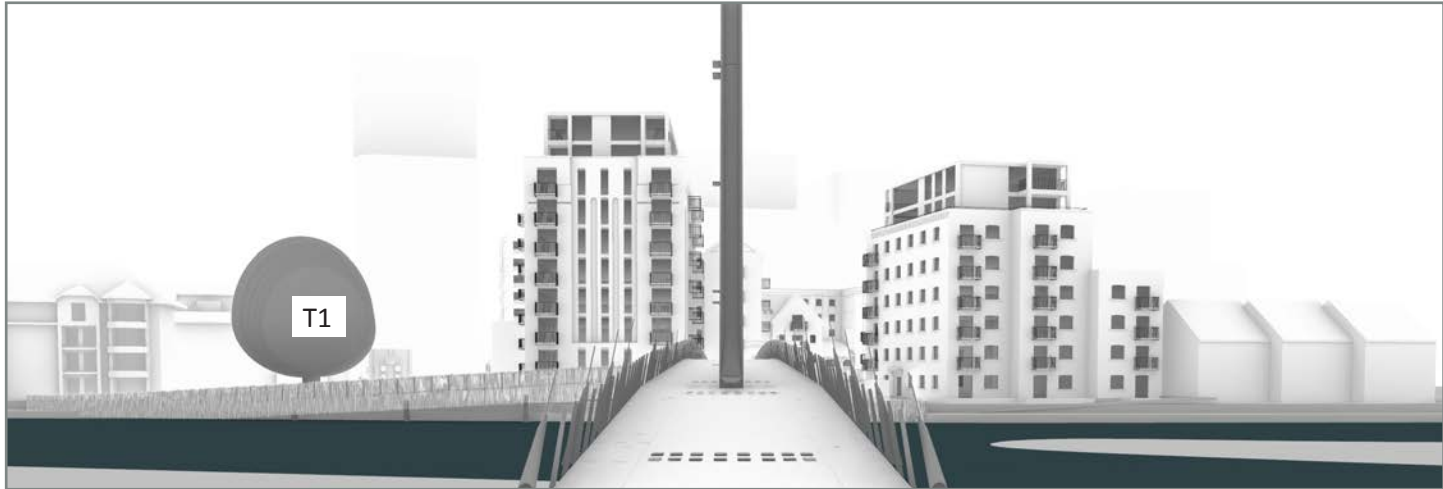


Fig. 4: Proposed - View from Bridge

Tree Code	Species		Folliage type	Height (m)	Spread (m)				Transparency	
	Common name	Scientific Notation			N	E	S	W	Full leave	Bare branch
T1	Unknown	Unknown	D	17	7	7	7	7	20*	55*

Tree transparencies taken from BR209 Table H1 where available

*Assumed

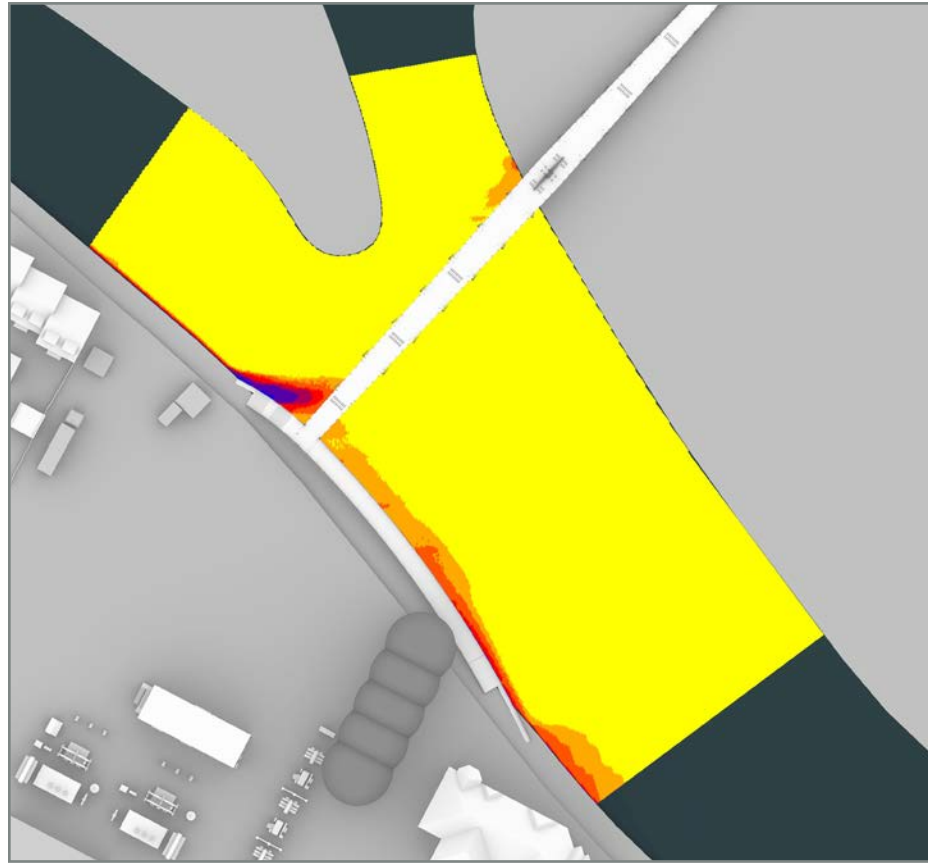


Fig. 5: Existing - 21st March

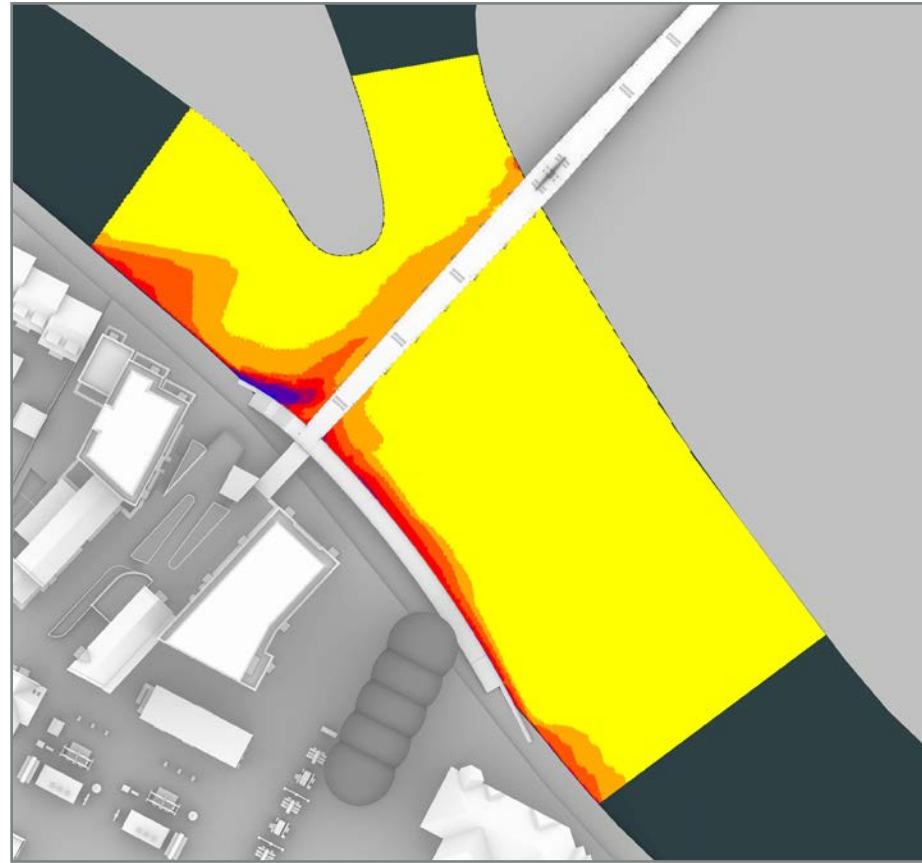


Fig. 6: Proposed - 21st March

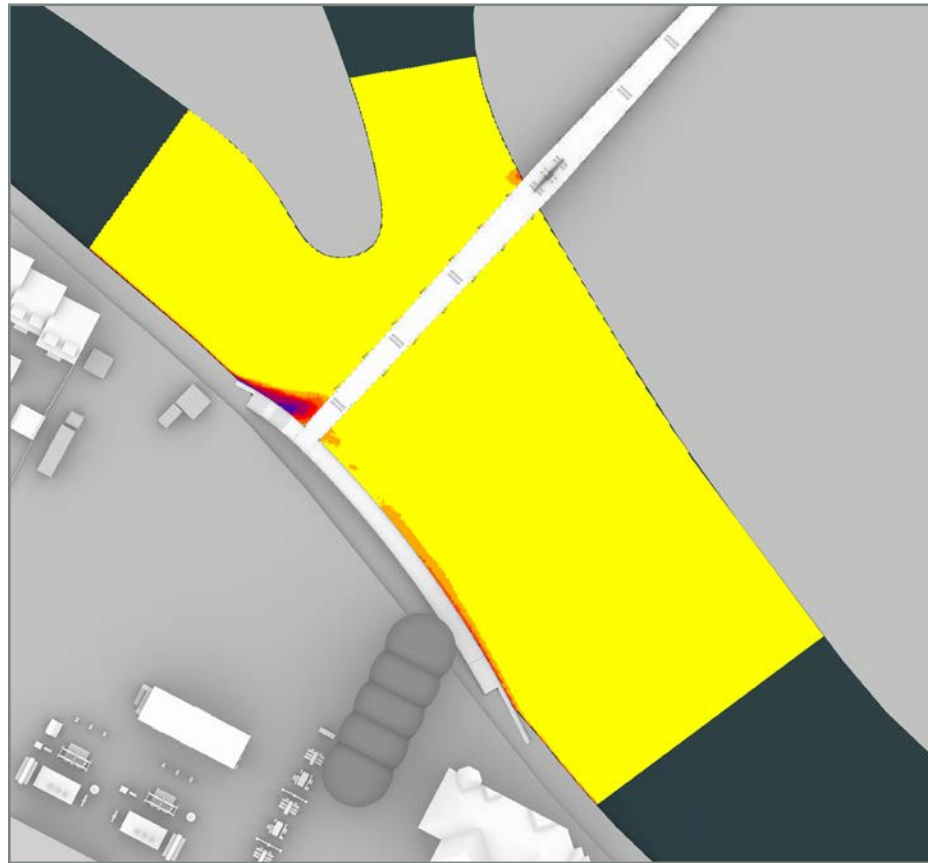
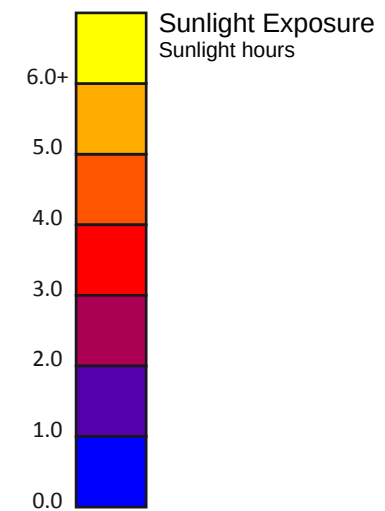


Fig. 7: Existing - 21st April



Fig. 8: Proposed - 21st April



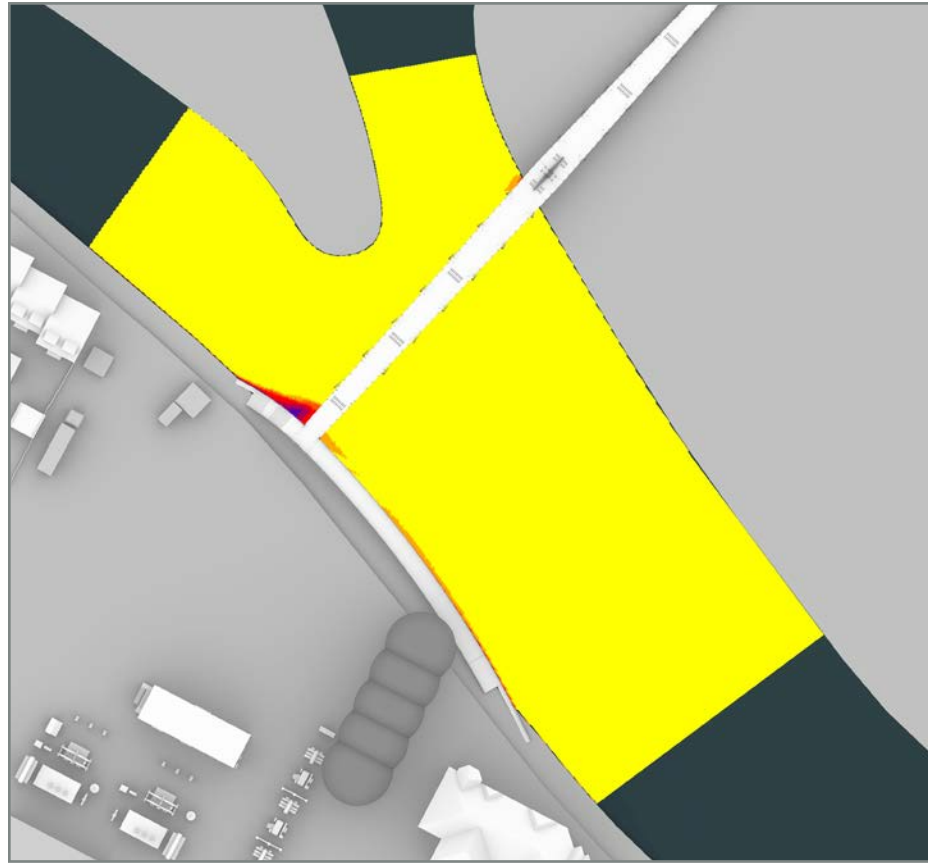


Fig. 9: Existing - 21st May

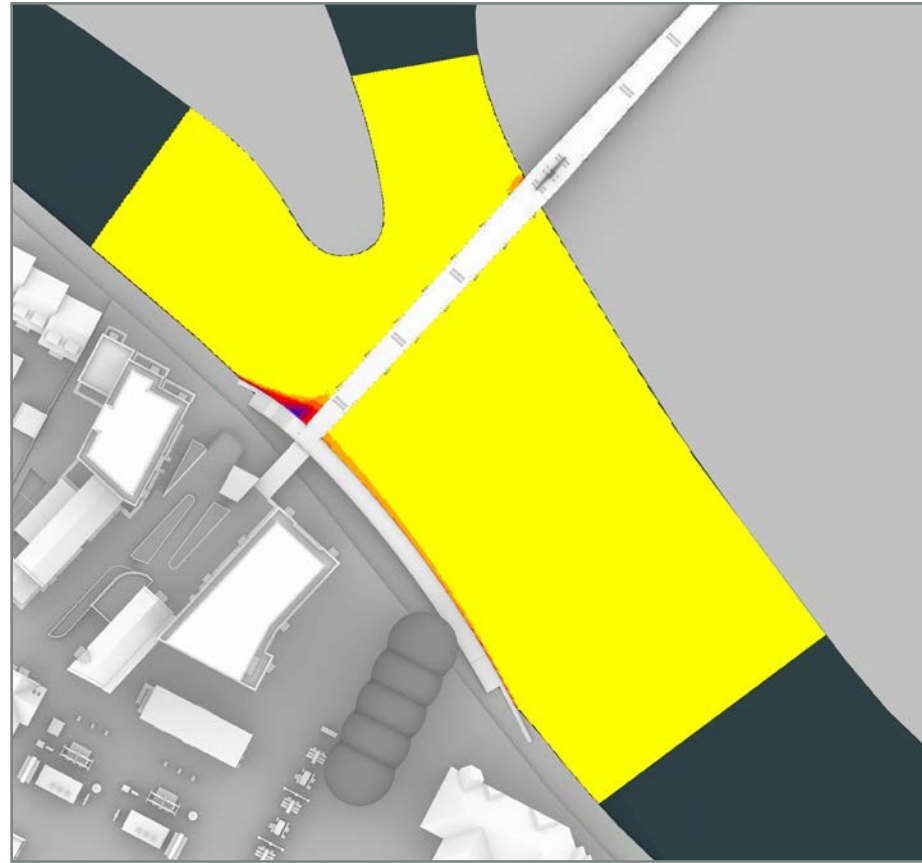


Fig. 10: Proposed - 21st May

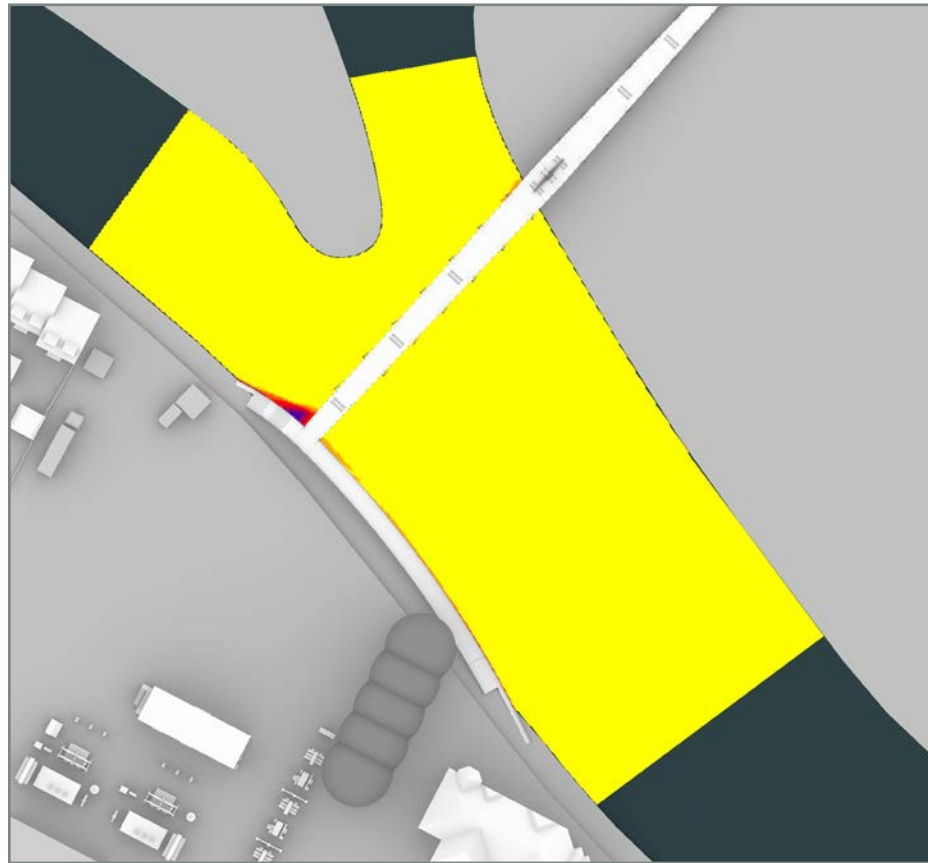


Fig. 11: Existing - 21st June

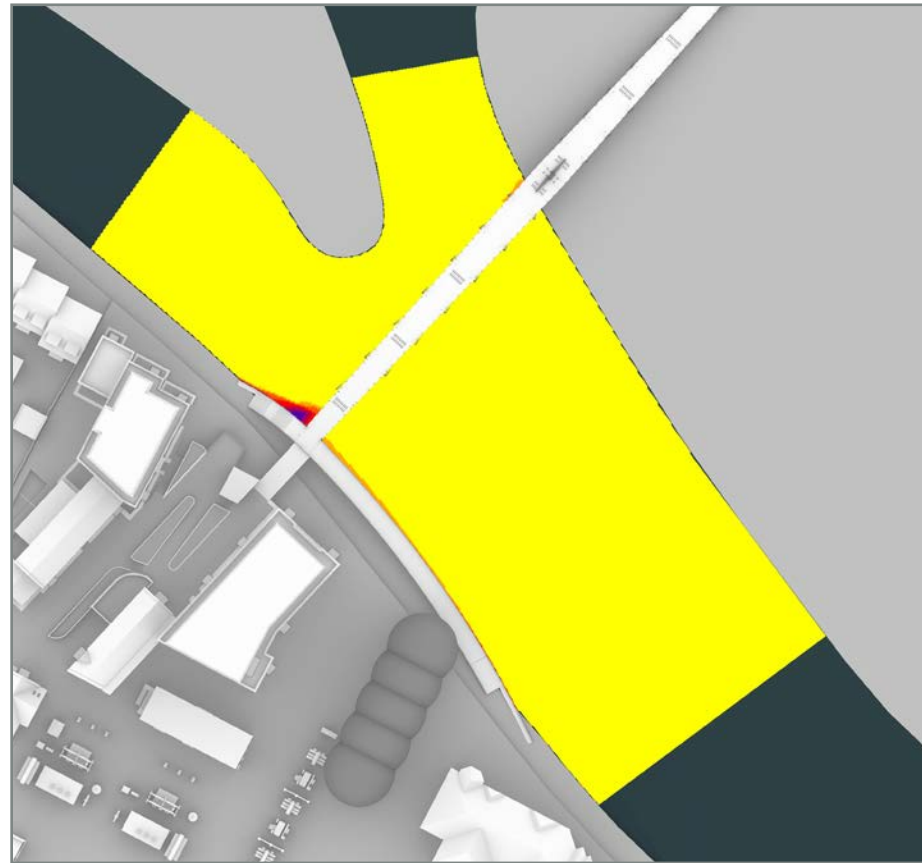
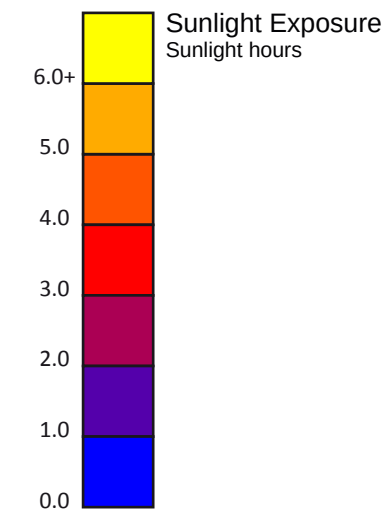


Fig. 12: Proposed - 21st June



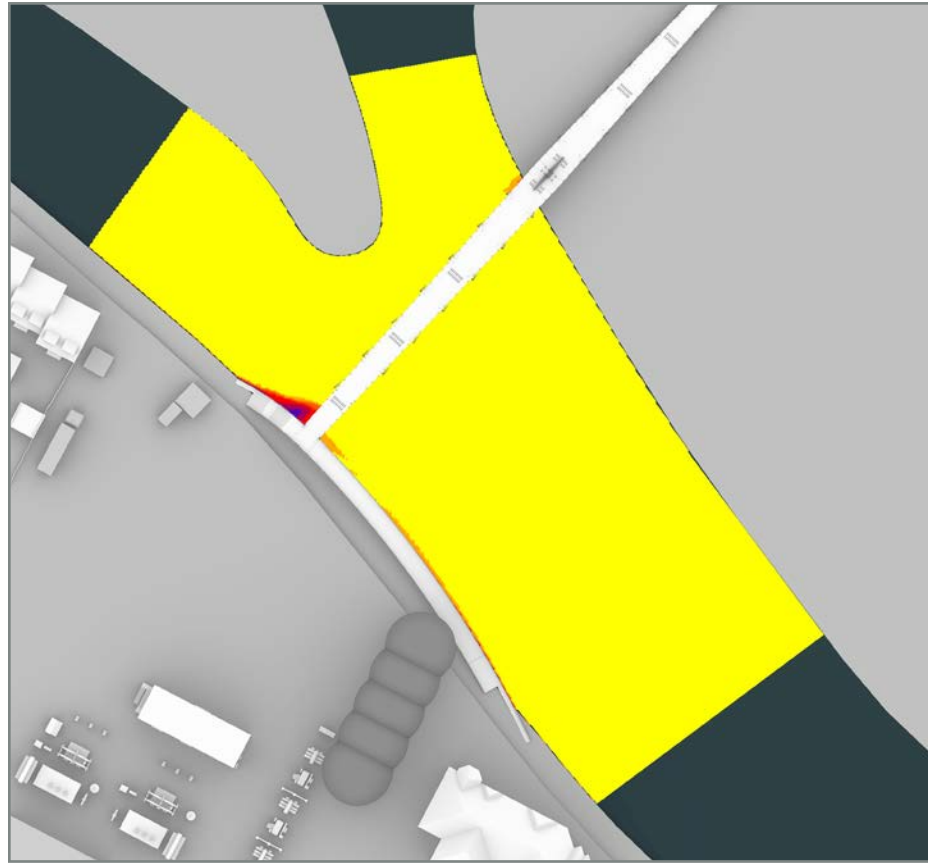


Fig. 13: Existing - 21s July

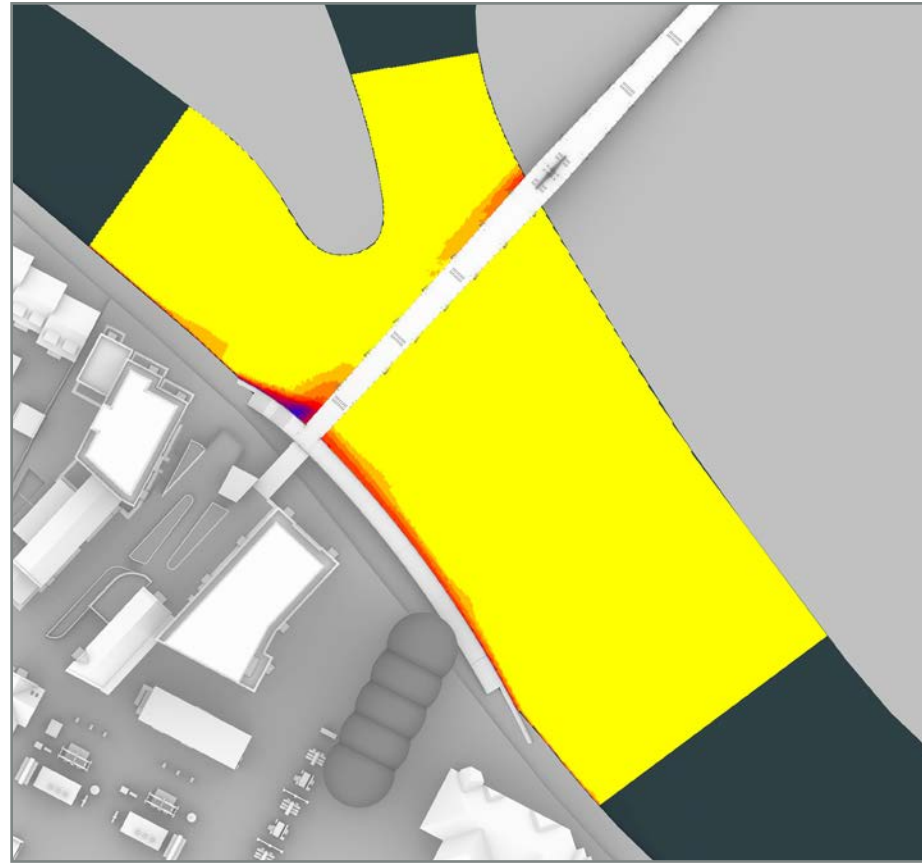


Fig. 14: Proposed - 21st July

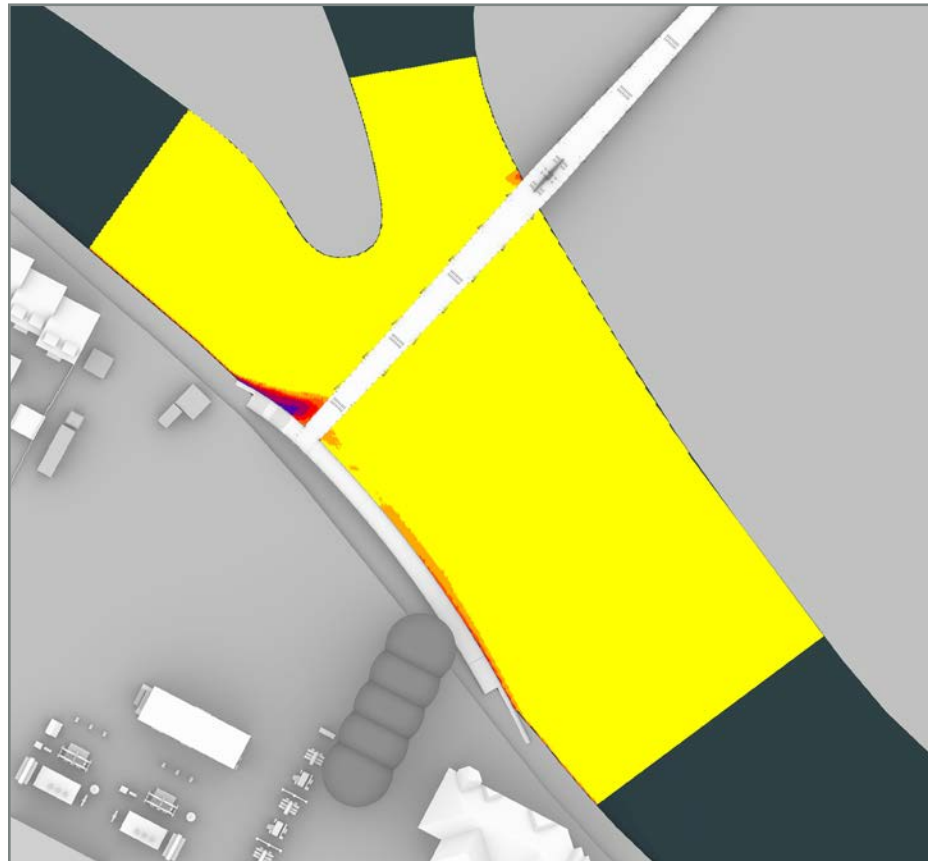
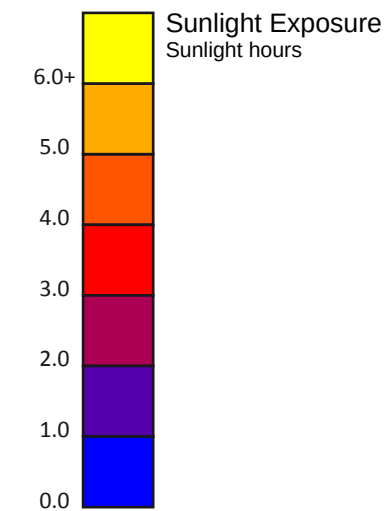


Fig. 15: Existing - 21st August



Fig. 16: Proposed - 21st August



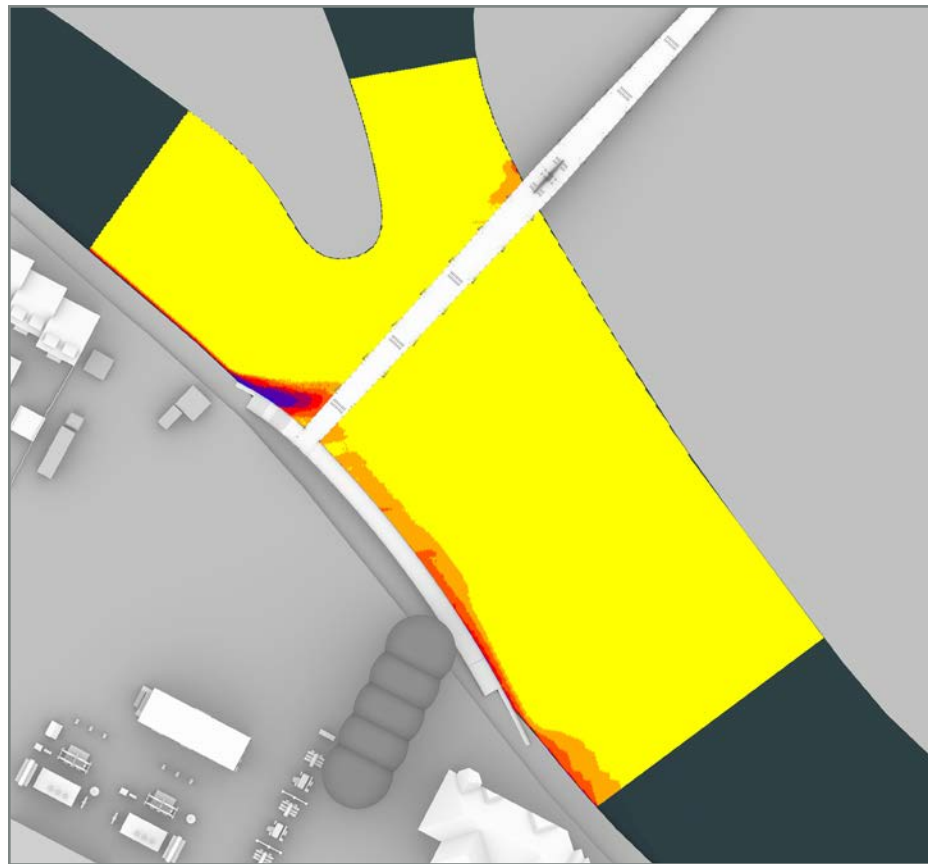


Fig. 17: Existing - 21s September

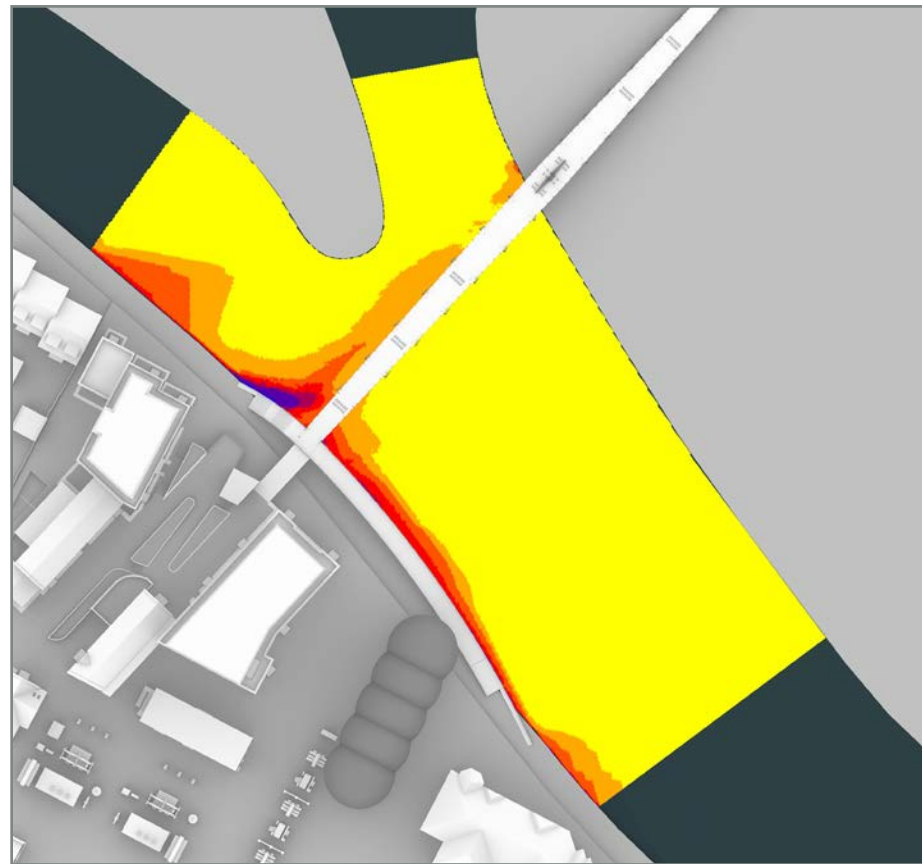


Fig. 18: Proposed - 21st September

