























| Design Consideration

| Roof Maintenance Access

The Old Quad provides access to the facades of the buildings that surround it. The team have engaged with the University of Manchester's Facilities, Maintenance and Compliance (FMC) staff who manage this.

Regular maintenance access is required to gutter levels and rainwater down pipes of all buildings forming the Old Quad, and the Beyer building gable to prune the Boston ivy.

Drone surveys of the higher and concealed roof levels are undertaken on an annual basis to establish condition and identify areas requiring maintenance work.

The project team have been provided with a range of MEWPs that are used for this purpose. These typically weigh 20 metric tons and are 2.5m wide by 4m long. They change proportion when in operation.

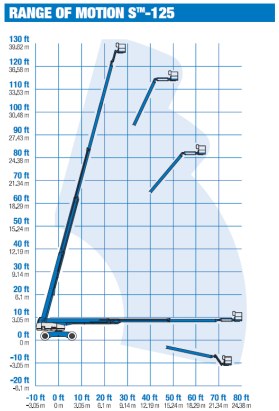
The access to Old Quad for these is from Oxford Road, through the Queens Arch due to the weight limit on the access from Burlington Street.

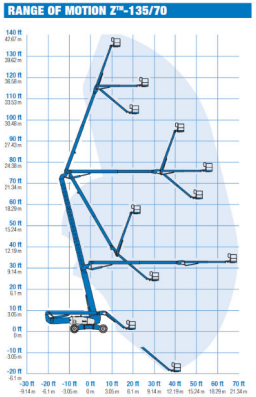
The University also use a 'lightweight' spider MEWP in order to work round the weight limit on the access from Burlington Street. The spider MEWP is used for access to the higher levels.

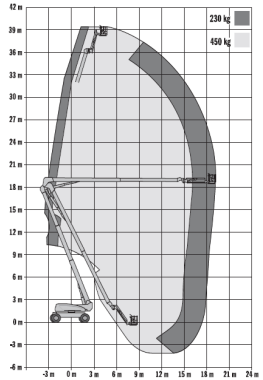
The use of MEWP within the courtyard is enable by the use of ground plates to spread the imposed load to limit / mitigate against damage to the surface below.

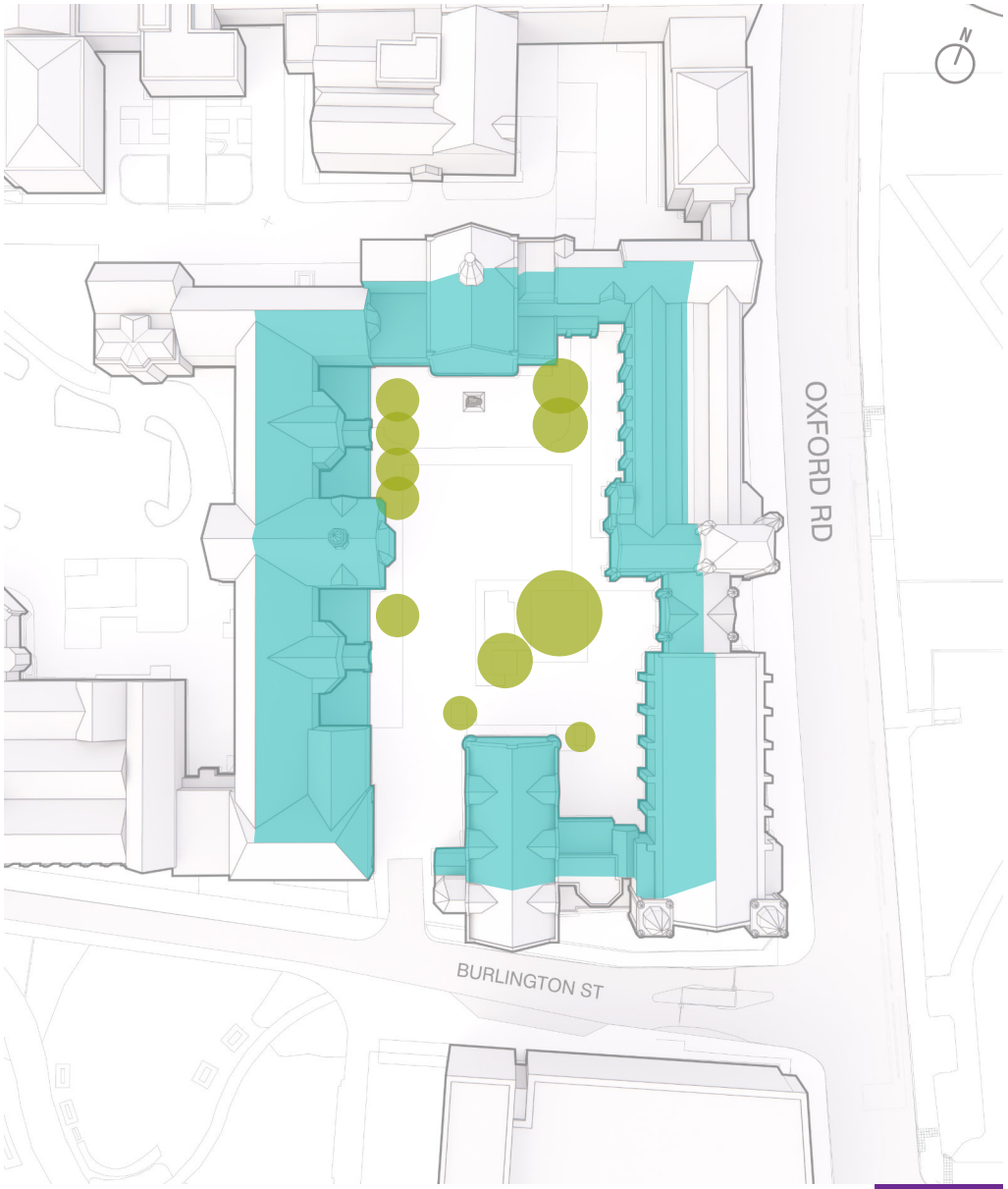
The diagram adjacent illustrates the roofs accessed from the Old Quad. Details of the MEWPs used to undertake the elevated access have been received from the University.

This information has been used to assess the needs for access that the Bicentennial project has to address. This has then been overlaid on the concept design and reviewed with the University FMC staff, and their comments gained to shape the proposal.







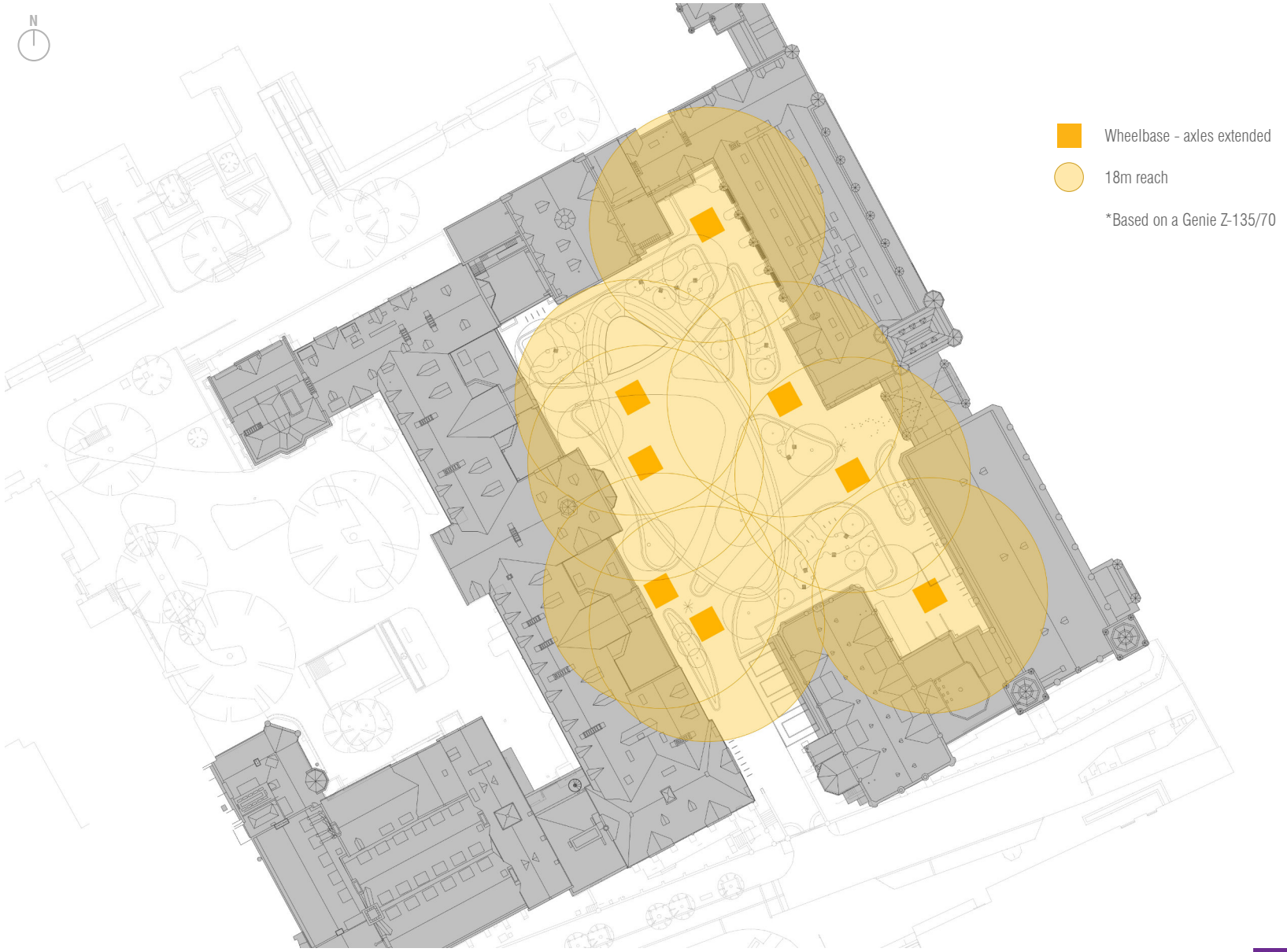


WILSON MASON architecture and interior design

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| Appendix C

| MEWP Access Proposal



| Design Considerations
| Vehicle Access

Vehicle access to the Old Quad is restricted.

This is due to the presence of a basement and service tunnel under the access from Burlington Street. A result of this is that a 3 ton limit has been defined in order to protect and prevent damage to these structures.

FIRE FIGHTING ACCESS

The weight limit to the Burlington Street access means that there is no access for fire tenders within Old Quad. The agreed arrangement is that in the event of a fire they park on Oxford Street or Burlington Street.

SERVICE ACCESS

The service access to Whitworth hall and the Christie Bistro is that vehicles over the 3 ton limit access the area through the Queens arch.

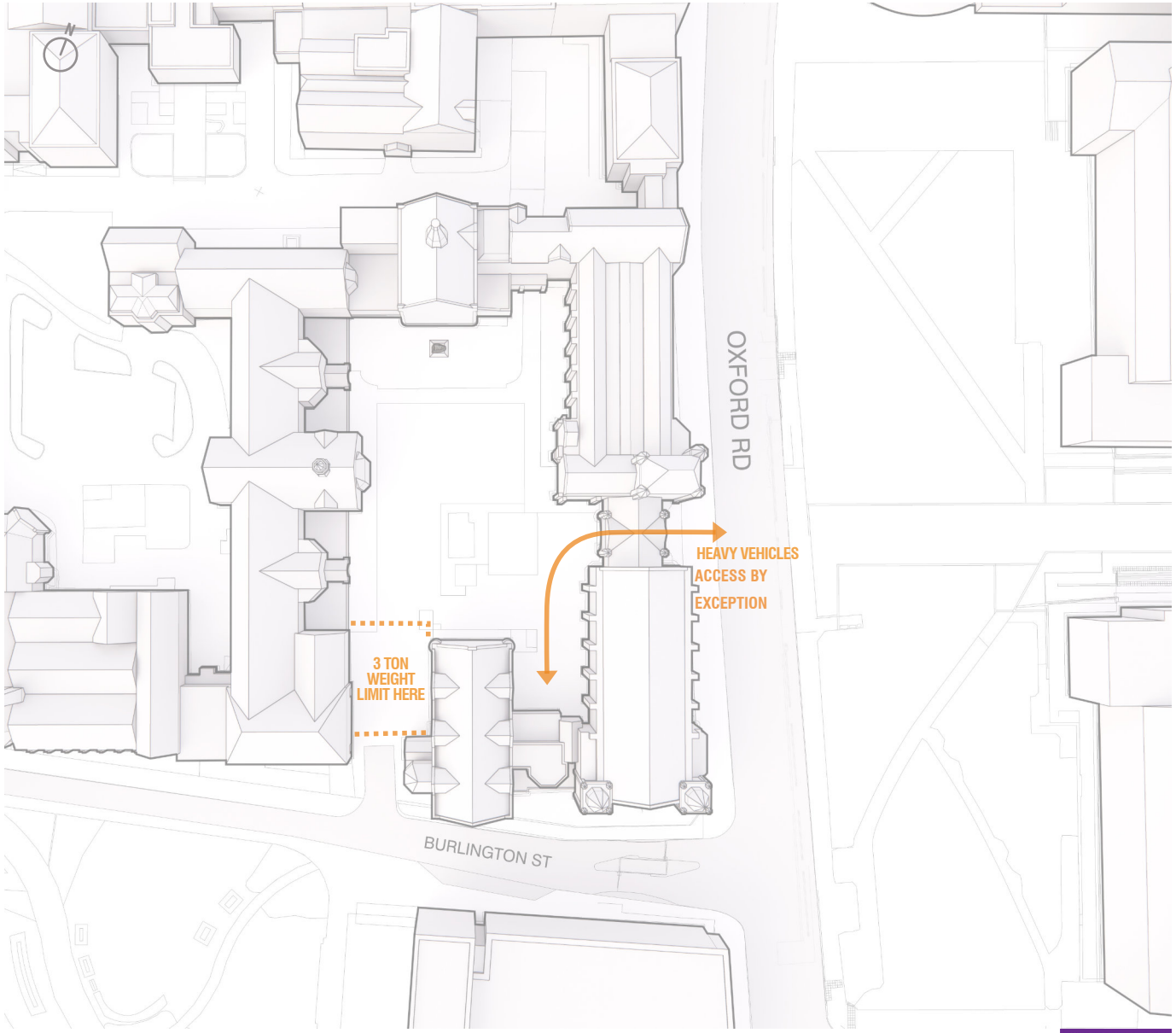
The entry point to the buildings is the door to Old Quad within the link between the two buildings.

The bins are taken to Burlington Street to be emptied.

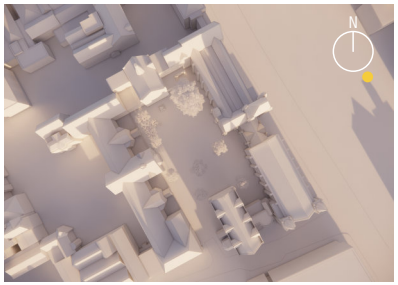


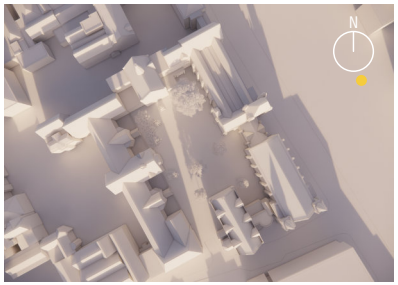


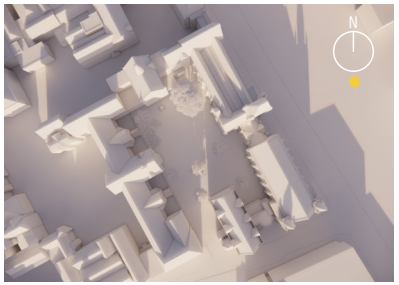


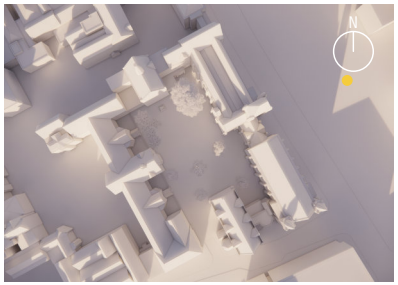


| Design Considerations
| Seasonal Solar Shading

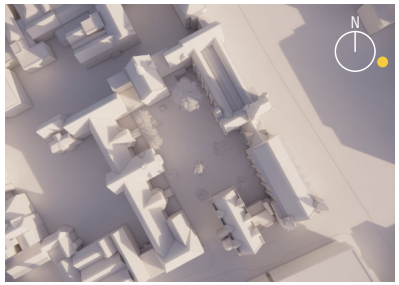

Winter 1000 GMT

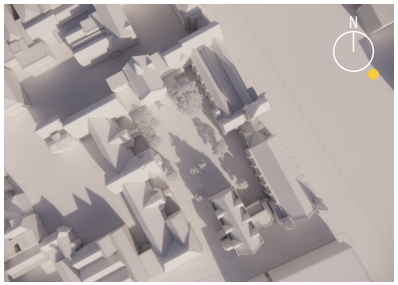

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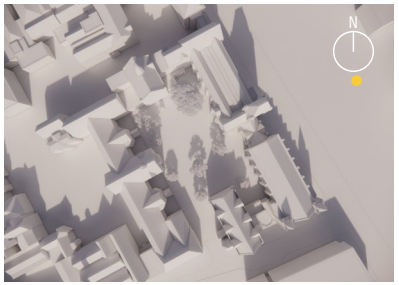

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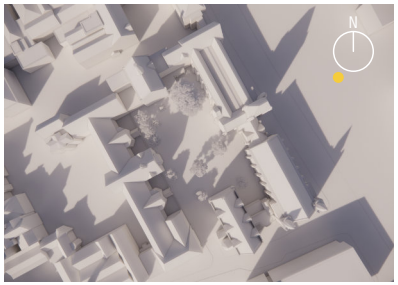

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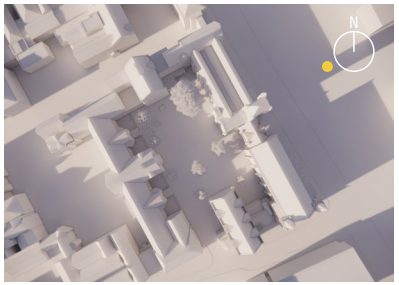

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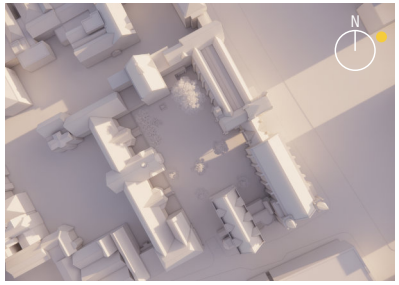

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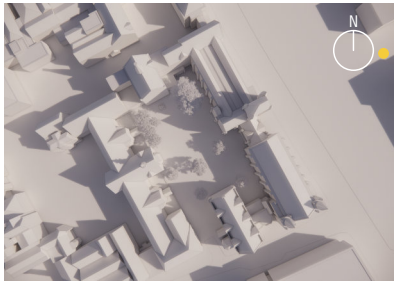

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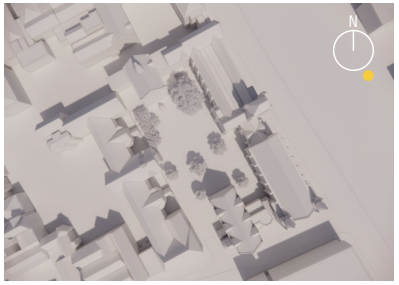

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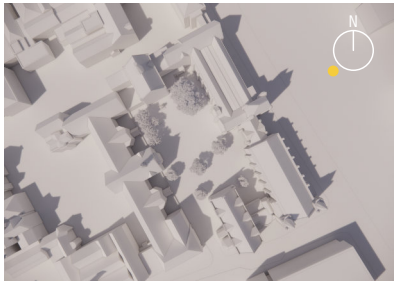

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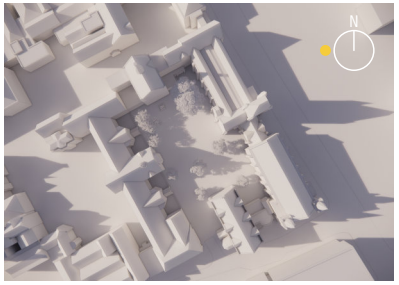

Spring Equinox 1600 GMT


Summer 0600 BST


Summer 0900 BST


Summer 1200 BST


Summer 1500 BST


Summer 1800 BST

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