| Design

|

THE DESIGN

The project is to enhance the Old Quad and provide an innovative and exemplar landscaped solution. This is to focus on:

- Environmental sustainability
- Retains and enhances the existing trees
- Promotes bio diversity
- Providing a landscape / planting solution that ' differentiates' it from the surrounding campus landscape areas
- Is maintainable
- Is accessible
- Addresses currents and contemporary security considerations
- Providing a lighting scheme to enhance the buildings and meet operational and functional requirements for all seasons

The design has to continue to support the functions and maintenance of the building that define it, by allowing:

- delivery access to Whitworth Hall and the Christie
- maintenance access to the facades of the enclosing buildings

Considers inclusivity and accessibility

Retains the information boards - giving historic context

Facilitates a range of uses - from day to day quiet space to large party graduations

Is complete no later than 30 May 2024

Additionally the stakeholders have identified that:

Due to a weight limit Fire Brigade access to the buildings forming the quad is from Oxford Road, with the tenders not entering the quad.

The quantities of waste bins currently located within the quad can be reduced.

SURVEYS, CONSTRAINTS AND CONSIDERATIONS

There are ashes interred within the area of Old Quad.

A weight limit exists on the access from Burlington Road due to a below ground duct. This is 2 tons.

A full topographic survey of the surface of the space and the elevations of the buildings that form the quad has been undertaken

Design Considerations
Environmental Sustainability

THE UNIVERSITY OF MANCHESTER'S THREE CORE GOALS ARE: RESEARCH AND DISCOVERY, TEACHING AND LEARNING, AND SOCIAL RESPONSIBILITY. THESE GOALS ARE PART OF THE UNIVERSITY'S STRATEGIC PLAN. ENVIRONMENTAL SUSTAINABILITY IS CONSIDERED PART OF MEETING THE UNIVERSITY'S SOCIAL RESPONSIBILITY CORE GOAL.

The strategic plan sets the University of Manchester's priorities for the first five years of their journey towards their vision in being recognised globally for the excellence of their research, learning and innovation, and for the benefits they bring to society and the environment. The strategic plan has been built around the three core goals, and defines supporting themes and key measures of success.

In celebrating the University's Bicentenary this project is considered by it's stakeholders as a way of demonstrating the University's commitment to its future defined within it's strategic plan.

The University of Manchester's Sustainability Strategy 2023-2028 was approved by the University's Board of Governors in 2023.

This Environmental Sustainability Strategy seeks to achieve the commitments as a contribution to the University's "Our Future's" goals and priorities. All of these commitments and associated actions will support delivery of the UN Sustainable Development Goals, these are delivered through the University's core goals of:

- Research and Discovery
- Teaching and Learning
- Social responsibility

Sustainable decision making within the University of Manchester Operations, is embedded within the systems and processes across the University through considering:

Construction and Refurbishment
Embed sustainability into all construction, refurbishment, and maintenance activity, working towards zero carbon and the removal of other environmental impacts.

Risk and Climate Resilience
Build climate risk awareness and resilience into all our activities.

Responsible procurement
Ensure that our purchasing activity and practices support our environmental, social, and economic priorities.

Resource Management
To drive efficiency and embed whole life cycle considerations into decision making and operations.

Travel and Transport
Reduce the impact of our travel and transport decisions on people and the environment.

Valuing Nature
Our campus is an environment where people and wildlife thrive together.

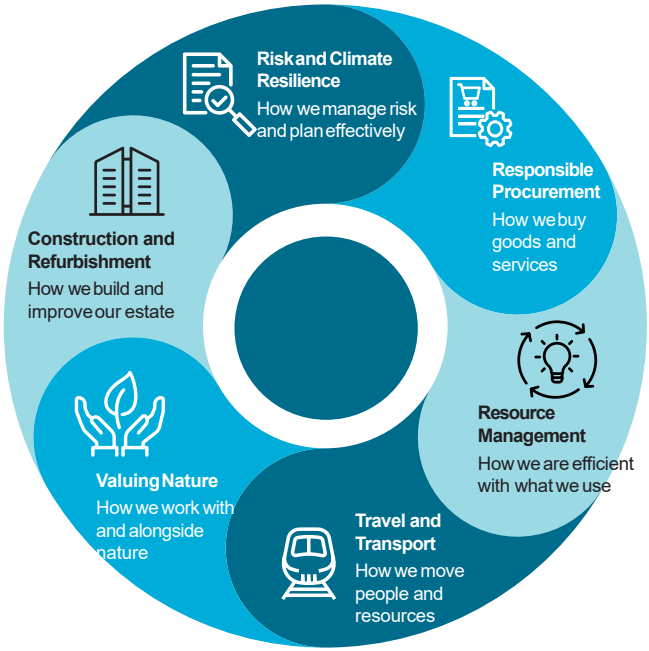
THE OLD QUAD BICENTENNIAL PROJECT

The Old Quad Bicentennial project will address these through the following:

Construction and Refurbishment
Existing materials (York stone paving) will be lifted reworked and relaid; new materials will be assessed for and specified on the basis of their embodied carbon content, the use of alternative, non plastic packaging by suppliers will be specified.

Risk and Climate Resilience
consideration of changing and more significant weather patterns, within the plant and drainage specification and design

Responsible procurement
new materials will be assessed for and specified on the basis of their embodied carbon content, the use of alternative, non plastic packaging by suppliers will be specified.



Resource Management
Existing materials will be reused, high quality long life natural materials will be specified, assessed for the embodies carbon content

Travel and Transport
Locally sourced materials will be used, TEAMS used where were possible to reduce project related travel. Consultants with carbon awareness have been selected.

Referencing Historic Landscape Design

The history of the Old Quad space is one of many layers.

Prior to the development of the Alfred Waterhouse designed John Owens, Beyer, Christie and Whitworth Buildings, the space was occupied by a series of substantial Victorian villas with large, organically shaped gardens.

The Old Quad space itself would originally have been open on the eastern side to Oxford Road as the John Owens building was constructed first (1873). The Beyer and Museum buildings were built next (1887), then the Christie (1898) and finally the Whitworth Hall (1902) to enclose and complete the Old Quad as the space we see today.

On review of historic imagery and mapping of the space, it is apparent that the public realm has frequently changed form and has only ever been designed as a transient space for movement, not serving a specific purpose other than to provide access to and around the buildings. This is most apparent in its current form as a hard surfaced car park.

The timescale in which the Old Quad buildings were constructed between spanned the late Victorian and very early Edwardian eras. British landscape, public realm and garden design in the late Victorian era was becoming increasingly about a response to the prior industrial movement and the overcrowding and poor conditions that arose from it.

The requirement to create 'Urban Lungs' within our cities brought Victorian innovation in garden design to a wider public, particularly through urban public space.

This movement increased the importance of planting and trees within public spaces, providing a space to access and enjoy nature, while appreciating the inherent benefits of these elements.



Victorian villas with large, organically shaped gardens, c.1850. *Reproduced with the permission of the National Library of Scotland*



The Old Quad on completion of the John Owens building, c.1875. The landscape design includes a curved edged lawned space and tree planting.

The Arts and Crafts movement was also heavily influencing garden design in the late Victorian era. These gardens combined structured layouts with more natural planting philosophies, using borders of colourful planting mixes.

Based on its heritage and the University's aspirations, the design of the Old Quad creates an 'Urban Lung' with references to the late Victorian and early Edwardian design theories which existed as the buildings were being developed.

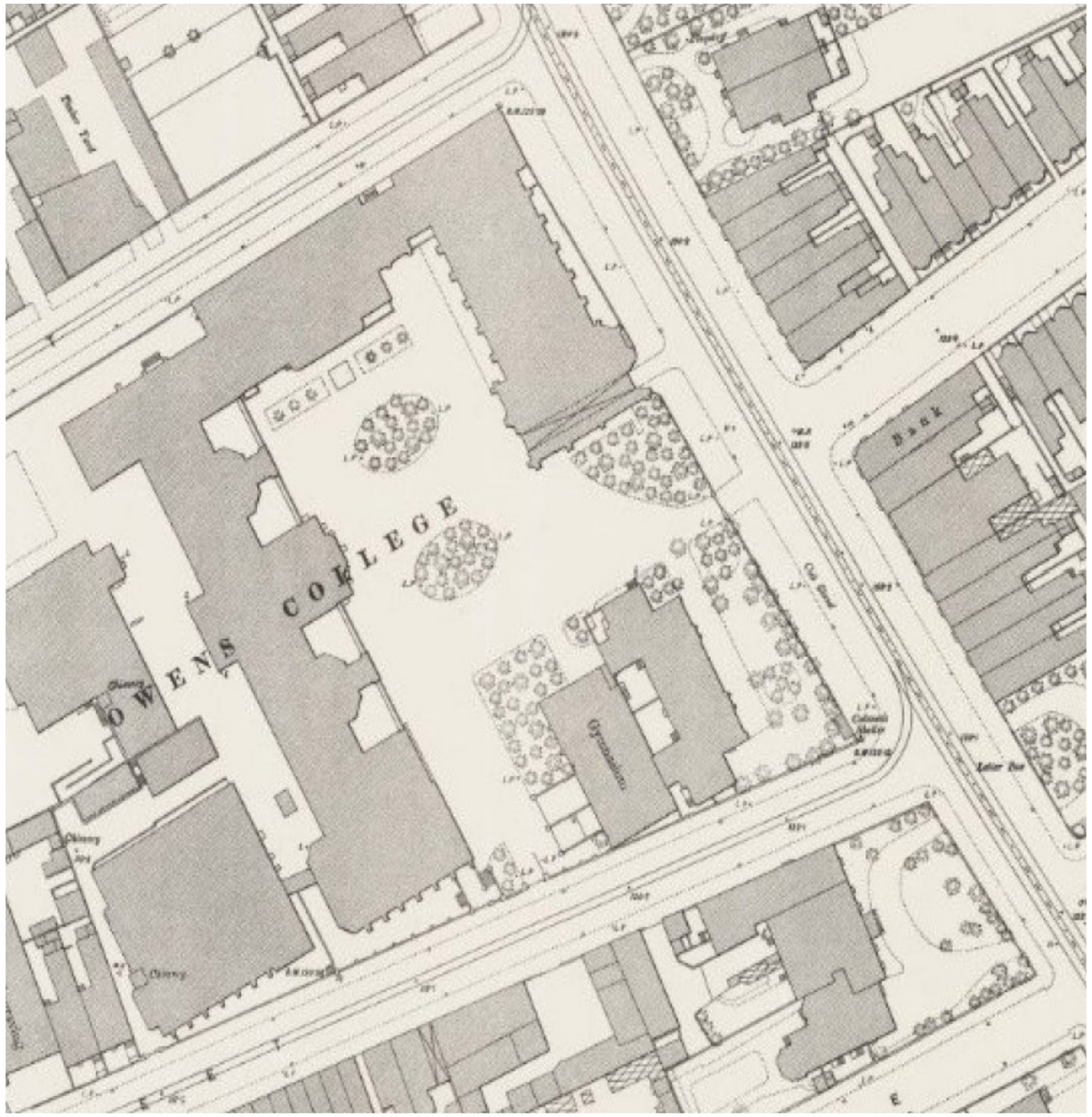
The design should be formed to create a modern, forward thinking space in terms of current technologies, sustainability innovations and wellbeing initiatives, but it should be done in a way which reflects and represents the heritage of the space, giving historic justification to the developing design.

The design team has undertaken in-depth research into how similar spaces of the same era would have been formed, while also referencing the Universities aspirations for the space.

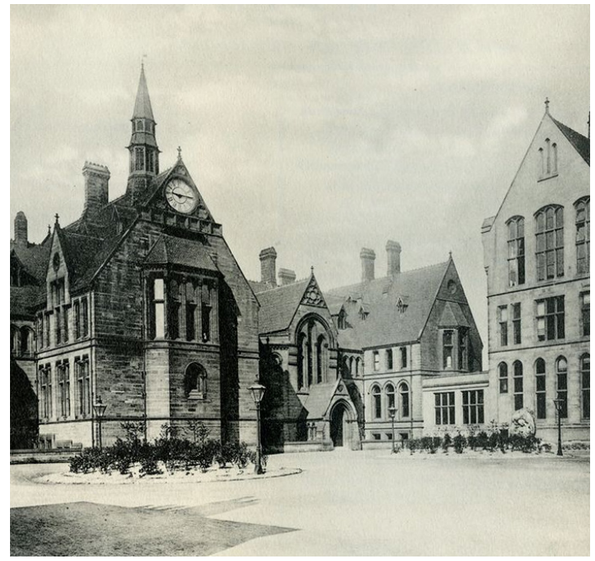
The brief is to create a space which could act as a garden, while also accommodating large volume events such as graduation ceremonies, but always in an approach which is appropriate, respectful and enhancing of the significant historic buildings.

The retention of existing mature trees and planting of additional valuable species at a lower level will create a green heart space which will draw in visitors, students and staff.

One of the key aims in attracting people into the Quad is to bring further exposure to the world class architecture within. The landscape will be designed, not to draw attention away from the buildings, but to frame and curate the very best views of the architectural surroundings and to encourage people to spend time in the space to fully reflect on its significance.



The Old Quad following completion of the Beyer building and Museum with elliptical planting beds, c. 1889. *Reproduced with the permission of the National Library of Scotland*



The Old Quad following completion of the Beyer building and Museum. The landscape design includes two elliptical planted areas.

Historic Landscape and Public Realm design references to be carried forward within the Old Quad proposals:

- The thing that makes this a world class space is the architecture. We need to ensure that the landscape response is appropriate and enhances the architecture, never detracting from or suppressing views.
- The inclusion of lawn was very important within Victorian garden and public space designs, providing open green space. This should be represented within the Old Quad.
- Areas of planting which could be highlighted and celebrated for a specific reason, often their rarity, colour or origin were a Victorian feature. This can be reflected in the developing design.
- Curved or elliptical forms have been used consistently throughout the timeline of the space. This design cue could be taken forward in the proposed design.
- The Arts and Crafts method of creating strong, structured layouts with more naturalistic planting could be referenced to provide a semi-formal design with more natural planting forms, addressing both the formality and structure of the space and the University's aspirations to create a multi-functioning garden.

While many key design references will come from the heritage of the Old Quad space, the design team have also reviewed other similar significant spaces which possess the design cues identified in our historic research.

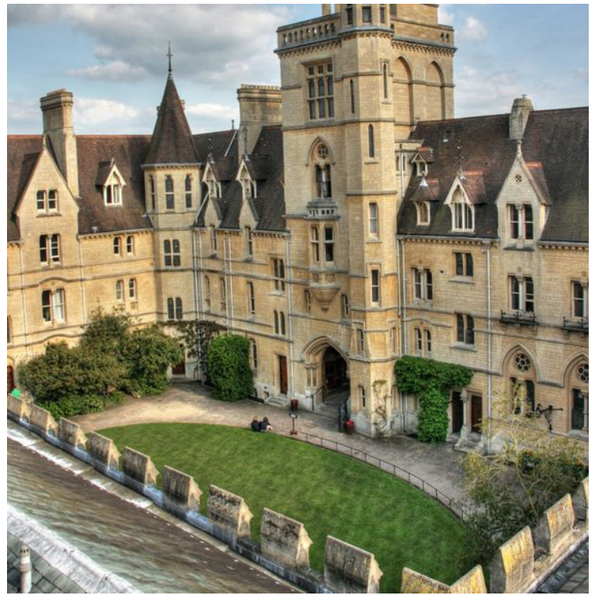
The use of curved or elliptical form within formal heritage spaces is a common design tool to accentuate the formality of the architecture and enhance flow through the spaces, removing corner cutting.



Radcliffe Camera, All Souls College and New College Quads, Oxford. Use of elliptical forms.



New College Quad, University of Oxford



Balliol Quad, University of Oxford. Elliptical form and low level soft landscape accentuating the architecture

Spaces with identified and designed-in desire lines will remove the issue of pedestrians cutting across lawned or planted spaces.

The use of desire lines is also a key tool in bringing emphasis to and highlighting building entrances.

The concept of the parterre has been used for hundreds of years in gardens and public spaces to bring a formality which ties in to the surrounding architecture, while allowing planting freedom in the bed it contains.
This theory can be applied to the Old Quad to allow us to achieve the University's ambitions in relation to sustainability and biodiversity, while also maintaining the formal base for the heritage architecture.



Jubilee Quad, University of Liverpool. Enclosed by three Grade II listed buildings



Jubilee Quad, University of Liverpool. Enclosed by three Grade II listed buildings

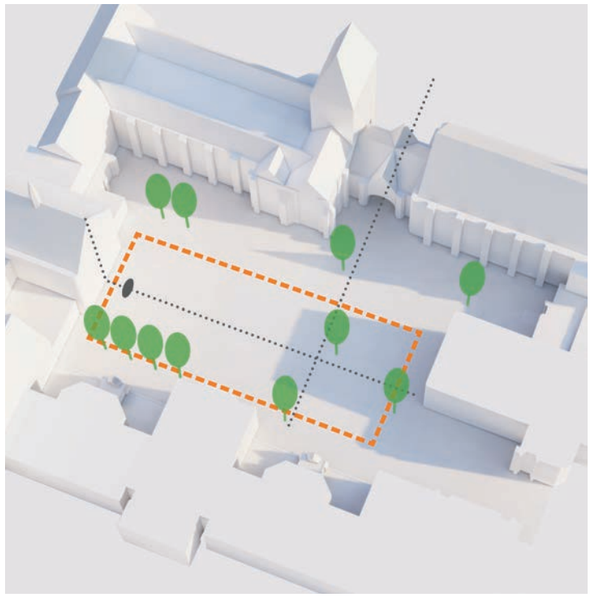


A modern interpretation of a Victorian era parterre with Arts and Crafts type planting

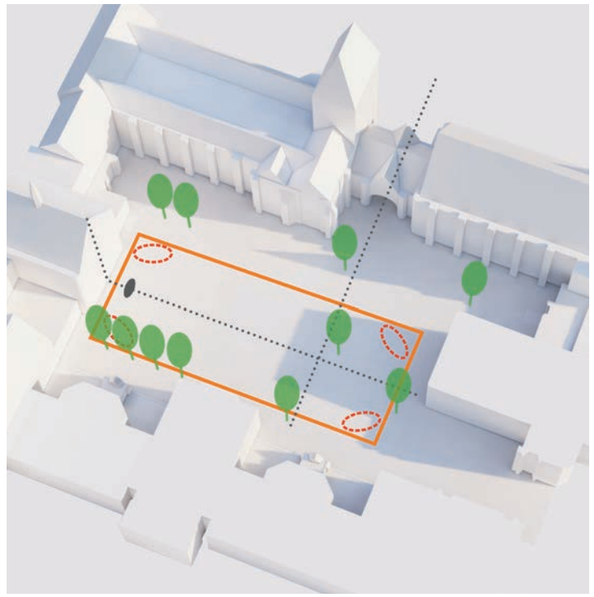
The Evolution of the Design

Through initial site analysis and concept development, the evolution of the design has led to the current proposal, the Ellipse. The outline stages of the concept development are highlighted in the images on this page and described below:

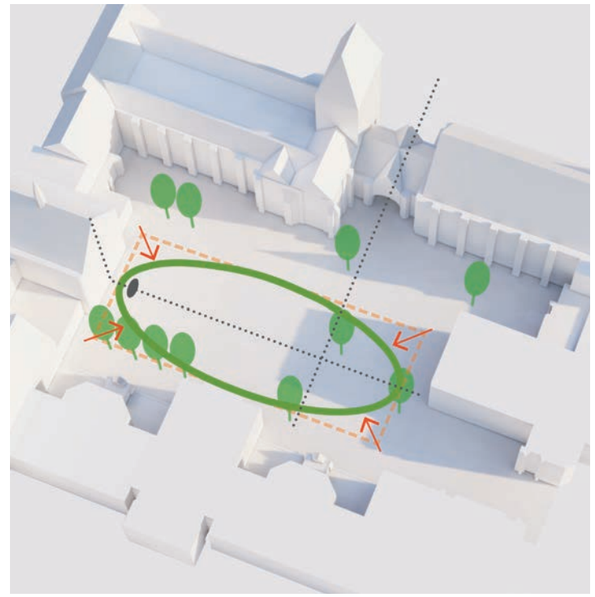
1. Key axial lines are defined by significant architectural elements, the Queens Arch (the main gateway into the site) and the Beyer Building frontage, which is the most imposing and identifiable facade on the Old Quad. Existing trees were highlighted and fixed to ensure they were incorporated into the design thinking. The existing glacial boulder, an important heritage element is retained in place. A core space is defined.
2. The core space is initially rectangular, creating 'dead space' in the four corners.
3. The corners are removed, but the axial lines retained, creating the form of the Ellipse.
4. Key movement and desire lines are identified on the plan based around site visit experience and feedback from users. These incorporate movement from the Queen's Arch to all building entrances off the Old Quad. The Old Quad is developed to be a space with high levels of soft landscape. It is essential that desire lines are identified and represented to ensure users of the space do not need to create their own routes through soft landscaped areas.
5. Desire lines are defined by soft landscape areas. The theory of the formal internal / informal external Ellipse if formed. The centre of the ellipse provides flexible, accessible lawned space for gathering and events. The informal spaces outside the Ellipse forms smaller, more intimate seating and gathering spaces in semi-naturalistic planting.
6. The design is enriched with additional layers of design development, including planting, hard landscape materials, street furniture and artwork.



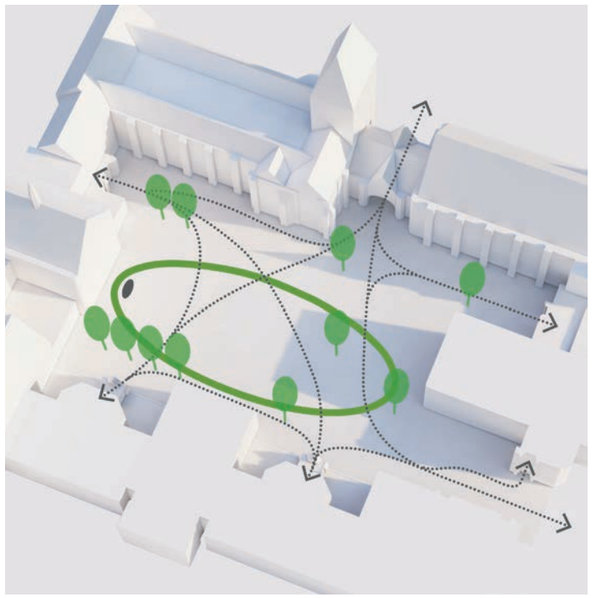
1. Identify key space and existing feature alignment



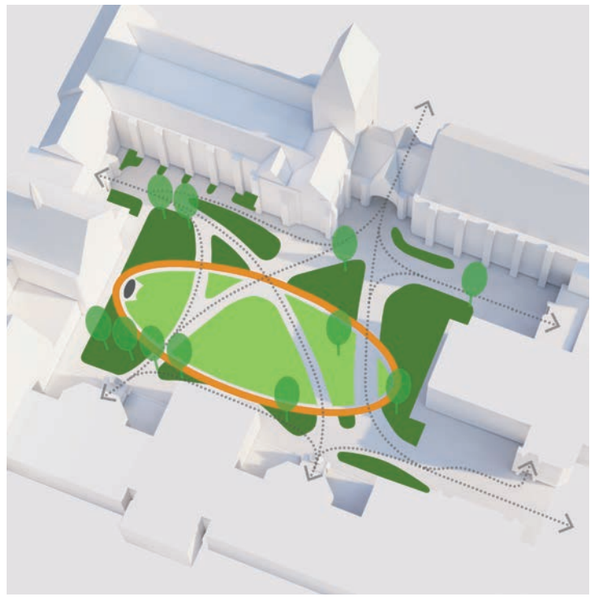
2. Review efficiency and functionality of space



3. The Ellipse is formed to remove remote corners and create an inclusive central space



4. Desire lines identified and highlighted



5. Desire lines defined by lawns and planting



6. Design development and enrichment

Historic & Architectural References

The concept design for the Old Quad has been developed to draw upon the history of the space and form strong reference to its architectural context.

The buildings currently create the visual identity of the space, requiring a design which enhances the connection between the people using the Quad and the architecture. The design forms a setting to emphasise the architecture, care has been taken to ensure it does not detract.

One of the key considerations of the design was to create strong lines of sight throughout the space to frame and enhance the views of the surrounding buildings. The existing mature trees within the space were used as elements to begin creating these architectural views.

The design removes dense mid-level vegetation which previously blocked views across to John Owens when entering through the Queen's Arch. It is important for the design to provide as much visual connection with the buildings as possible, particularly on entering the site.

The main pedestrian routes within the Old Quad flow toward building entrances. The design has key circulation areas to guide the eye toward significant architectural moments.

The development of the Ellipse design was to create a stone form which, when standing within the centre of the space, would form a direct visual connection to the surrounding building plinths. This design tool which allows us to create a space with a large amount of low level planting, and when within the central lawned space views back toward the historic architecture underlined by stone mitigating the naturalistic aesthetic of the planting.

The paving within the Ellipse will be made up of new and reclaimed stone. The new paving stone pattern references the facade stonework detail of the John Owens, Beyer, Christie and Whitworth buildings (as shown on the top left photograph on this page).

This brings an additional layer of historic connection between the proposed design and the heritage of the space. The reclaimed stone, taken from the existing Yorkstone within the space, will form the base paving of the Ellipse. This will bring a direct connection between the people sitting on the Ellipse and an element of the material heritage of the space.



Referencing the facade stonework of John Owens, Christie and Whitworth Buildings



Movement routes used to highlight important aspects of the architecture



The design has been developed to highlight key architectural and historic elements of the Quad



Mid-level vegetation removed to open up eye-level views throughout the space

The planting design has been developed as a modern reference to key influences within the era of Old Quad's formation, between 1873 - 1902.

Late Victorian public spaces were developed to become 'Green Lungs' within built up cities following the Industrial Revolution. The Old Quad provides us with the perfect setting, with established mature trees, to recreate and reinforce this space as a modern 'Green Lung'.

The Arts and Crafts movement brought structured spaces with naturalistic planting which, when combined with historic 'parterre' concept, brought the idea of structured green spaces within the Quad, enclosed by a low, formal hedge. Within the design proposal, is a modern version of the historic principal of a formal enclosing edge allowing more flexibility and natural form within the planting bed itself. The formality of the outer edge responds directly with the formality of the architecture.



Bodrhyyddan Hall, Rhuddlan, Wales. Formal parterre garden



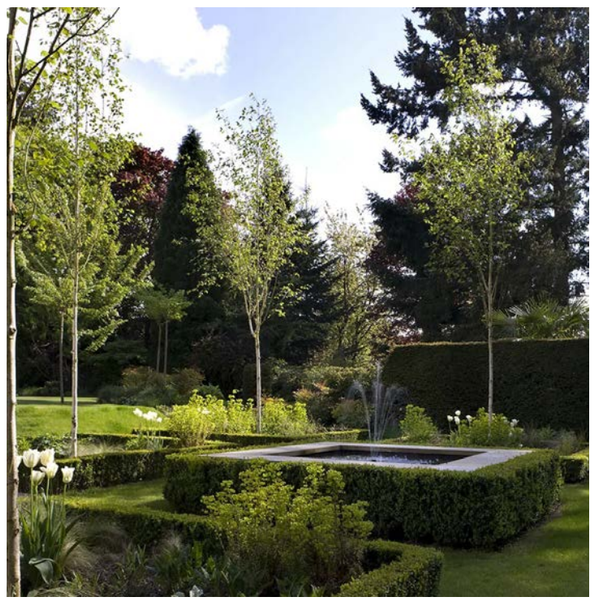
Victorian era parterre garden



A modern interpretation of a Victorian era parterre with Arts and Crafts type planting



A modern interpretation of a Victorian era parterre with Arts and Crafts type planting



A modern interpretation of a Victorian era parterre with Arts and Crafts type planting

Concept Masterplan



Legend:

1. Queens Arch
2. Museum Building
3. Whitworth Hall
4. Christie Building
5. John Owens Building
6. Beyer Building
7. The Old Quad Ellipse
8. Central Formal Lawn
9. Existing Boulder on Raised Plinth
10. Beyer Building Boston Ivy Facade
11. Feature Seating / Interpretation Ellipse
12. Structured ornamental planting
13. Habitat Creation Opportunity
14. Informal Seating Space
15. Bench Seating to Museum Building
16. Cycle Parking
17. Accessible Parking Spaces
18. Accessible Drop-off Bay
19. Bin Storage
20. Delivery Drop-off Bay
21. Wayfinding / Signage Opportunity
22. Photo Opportunity

N

The Old Quad’s Core Materials



Sandstone



Granite



Wood

Hard Landscape - Surface Types



Key

1. Granite sett mix
2. New sandstone
3. Reclaimed sandstone
4. Resin Bound Aggregate



1. Granite sett mix



2. New sandstone



3. Reclaimed sandstone



4. Resin Bound Aggregate

1. Granite sett mix





Current specification:

Supplier: Hardscape

Product: Granite mix
40% Magma flamed
40% Yellow Rock bush hammered
20% Barleycorn flamed

Finish: as above

Size: 100x100mm

Laying pattern: Stretcher bond

Origin: China



Magma flamed



Yellow Rock bush hammered



Barleycorn flamed

2. New sandstone





Current specification:

Supplier: Hardscape

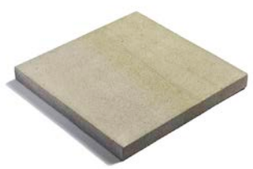
Product: Mixed Colour Pennant

Finish: Sawn

Size: 300mm wide x 900 / 600mm long and 100mm wide x varying lengths

Laying pattern: Stretcher bond

Origin: Gloucester, UK



Mixed Colour Pennant Sawn

3. Reclaimed sandstone





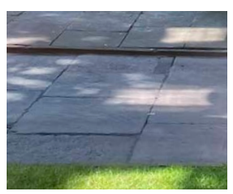
Current specification:

Supplier: Sourced from existing stone within the Old Quad. Hardscape provide a 'Paving Refresh' service to re-purpose lifted / relaid paving.

Product: n/a

Finish: To be re-finished to provide necessary anti-slip properties

Origin: Original origin unknown



Existing sandstone reclaimed and re-purposed

4. Resin Bound Aggregate



Current specification:

Supplier: Sureset

Product: Resin bound aggregate, Winter Pearl 6mm

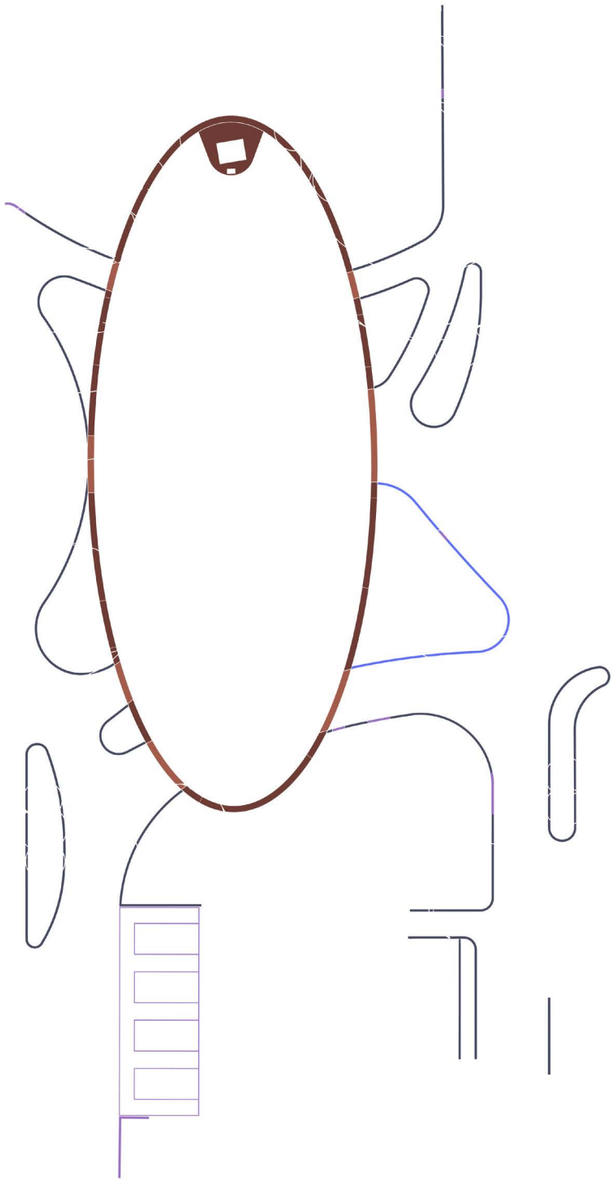
Finish: n/a

Origin: tbc



Winter Pearl 6mm

Hard Landscape - The Ellipse and Edging Materials



Key

1. Granite ‘Ellipse’ seat wall
2. Granite ‘Ellipse’ flush
3. Granite edging (50mm upstand) with flush access as required
4. Granite edging (300mm upstand)



1. Granite ‘Ellipse’ seat wall



2. Granite ‘Ellipse’ flush



3. Granite Edging (50mm upstand)



4. Granite Edging (300mm upstand)

1. Granite ‘Ellipse’ seat wall



Current specification:

Supplier: Hardscape

Product: Silva Montemuro Cinza

Finish: Flamed

Origin: Portugal



Silva Montemuro Cinza
flamed

2. Granite ‘Ellipse’ flush



Current specification:

Supplier: Hardscape

Product: Silva Montemuro Cinza

Finish: Flamed

Origin: Portugal



Silva Montemuro Cinza
flamed

3. Granite Edging (50mm upstand)



Current specification:

Supplier: Hardscape

Product: Yellow Rock

Finish: Bush Hammered

Size: 50mm upstand (above adjacent ground level)

Origin: China



Yellow Rock bush hammered

4. Granite Edging (300mm upstand)



Current specification:

Supplier: Hardscape

Product: Yellow Rock

Finish: Bush Hammered

Size: 300mm upstand (above adjacent ground level)

Origin: China

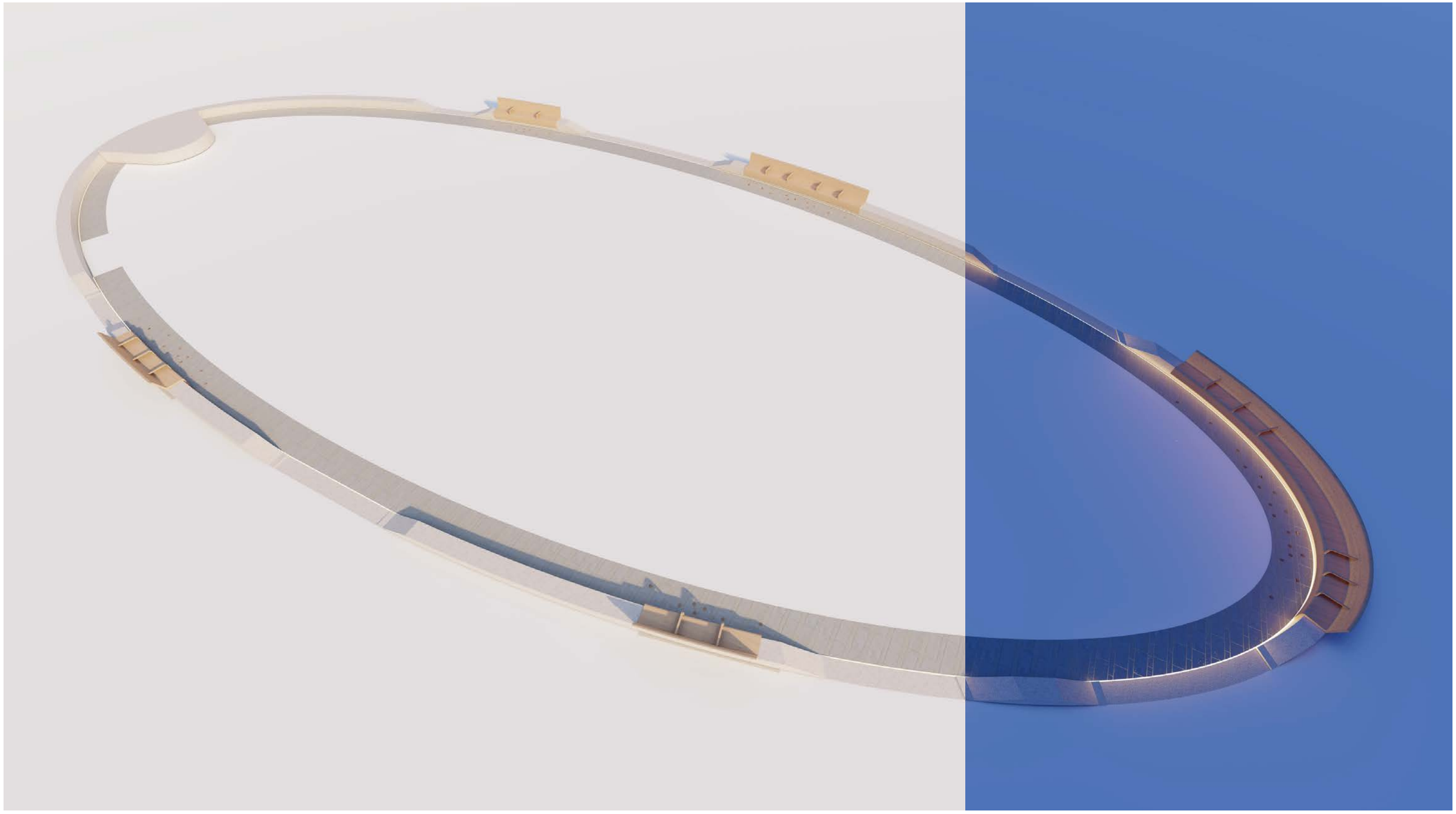


Yellow Rock bush hammered

Material Samples



Seating and Furniture - The Ellipse







Timber slats - natural finish



Timber slats - natural finish



Timber slats - natural finish weathered



Timber slats - natural finish



Existing campus example



Existing campus example

Timber Classification system

Durability class	Designation	Timber life(worst case)	Examples
1	Very durable	25+ Years	Tropical Hardwood, Teak, Opepe
2	**Durable**	**15 – 25 Years**	**UK Grown Oak**, Ekki, Iroko, Other Topical Hardwoods
3	Moderately durable	10 – 15 Years	Douglas Fir, Walnut
4	Slightly durable	5 – 10 Years	European Elm, Scandinavian Pine, Larch
5	Not durable	0 – 5 Years	Beech, Ash, Balsa

Seating and Furniture - Glades and Alcoves





Seat type 1



Natural stone seat

Current specification:

Seat Type 1

Supplier: Logic Bespoke

Product: Plateau seat 580mm

Finish: UK grown oak with powder coated legs

Origin: UK

Natural stone seat

Supplier: Hardscape

Product: Mixed Colour Pennant

Finish: Sawn top, natural sides

Size: 450mm high x 500mm wide x 500mm long

Origin: Gloucester, UK





Current specification:

Bench Type 1

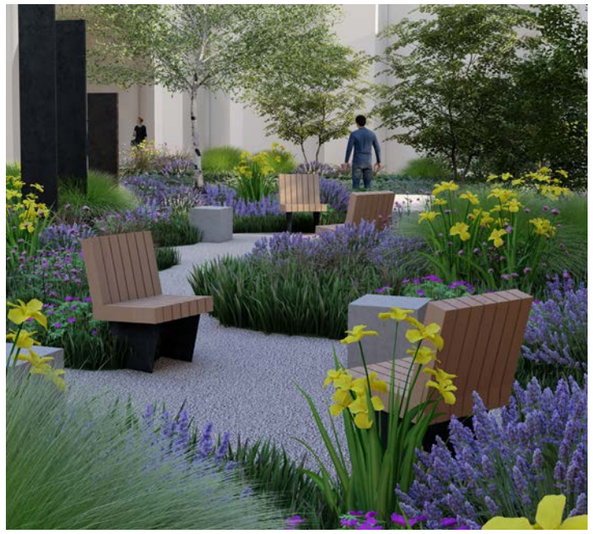
Supplier: Logic Bespoke

Product: Plateau Bench 2380mm

Finish: UK grown oak with powder coated legs

To include armrests

Origin: UK



The Glades

The Glades are a series of smaller, informal seating opportunities within areas of planting throughout the Old Quad.
These spaces provide grouped individual seats which offer a variety of seating opportunities for quieter, more reflective time in the Quad.



The Alcoves

The alcove bench seating is located in the Whitworth Building recesses to the north of the site. These longer benches with backrests and armrests offer views from the perimeter of the Old Quad looking into the space.



Reclaimed sandstone



New sandstone





Granite ‘Ellipse’



Granite sett mix



Resin bound aggregate