Design and Access Statement

Ellen Wilkinson Quad, University of Manchester

Client	University of Manchester
Job number	0658
Doc number	0658-PLI-ZZ-XX-RP-L-0006
Revision	02
	Stage 3
	For Planning
Date	27/10/23

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The Brief

An ‘Initial Brief to Estates’ document was issued by the University of Manchester in June 2022 outlining the key aims of the project and areas for consideration. This was further supplemented with an ‘Ensuring the EWB Quad Garden Is Ecologically Sound’ document issued in February 2023. Key points extracted from these briefing documents include:-

- ‘there is no alternative green space in the immediate vicinity that has the potential to accommodate a reasonable number of people and provide seating’
- ‘a significant and much needed improvement to the under-utilised space in the quad surrounding EW building for staff and students’
- ‘scope to be developed into a multi-functional outdoor area for all users of the building’
- ‘the EW building has very limited indoor space for staff and student social interaction’
- ‘lack of break-out space has a detrimental effect on staff and student wellbeing’
- ‘re-developed as an attractive outdoor area comprising shelter, seating and simple landscaping’
- ‘create a space that is more welcoming, a space to relax and an area for staff and student socialising, learning and collaboration’
- ‘upper level - new paving; re-design of steps; installation of canopies; addition of seating & tables, possibly movable’
- ‘lower level - new paved walkways with seating under trees; tree pruning to maximise light; screening from theatre; improve safety to Oxford Road exit; re-prioritise existing sculpture’
- strong desire to introduce / increase informal soft landscape elements to improve flora & fauna biodiversity
- request for more diverse materials palette, moving away from paving and lawn by introducing reinforced grass or timber decking, for example
- consider outdoor ‘classrooms’ Possible space for firepit.
- more controlled access points from surrounding streets
- improve direct connections into the courtyard from the surrounding buildings if possible
- Raised bed planters at C Block side
- Move away from lawned, trimmed and tidy campuses
- Small pond and a water source for birds/bats/butterflies etc
- Area re-wilded including features that support urban wildlife/wildflowers
- Emphasis on introducing flora or fauna including shrubs, bushes and plants that are native to the UK and support insects/birds
- Layering in cheerful colours and diverse greenery aswell as a sense of whimsy/creativity/play
- Trees close to the building be re-sited towards the centre of the quad.
- Consider future of the existing concrete sculpture.



Site Analysis

The existing courtyard is rectangular in shape, with two narrow access arms to the east and south, from Blyton Street and Brisbane Street respectively. It is enclosed primarily on three sides by the Ellen Wilkinson Building, of seven and five storeys height, and by the HCRI Building and Contact Theatre to the remaining elevation, of two and broadly three storeys height.

The Ellen Wilkinson Building, including the HCRI building, was opened in 1967 and designed by Building Design Partnership (BDP). It reflects the modernist style of the period, in particular the use of expressed concrete structure with rectangular glazed floor-to-ceiling infill panels. The HCRI building has more decorative concrete panels to its elevations, interspersed with more 'domestic' scale fenestration.

The Contact Theatre, and its later extension, are designed in the Post-modern style, with decorative brick elevations, metal panel façades, and structural metal detailing. The main theatre was first constructed in the 1963 and later refurbished in 1999 introducing the instantly recognisable structure currently seen. The extension was completed in 2020 preserving the original 90's vision whilst enhancing the sustainable design features.

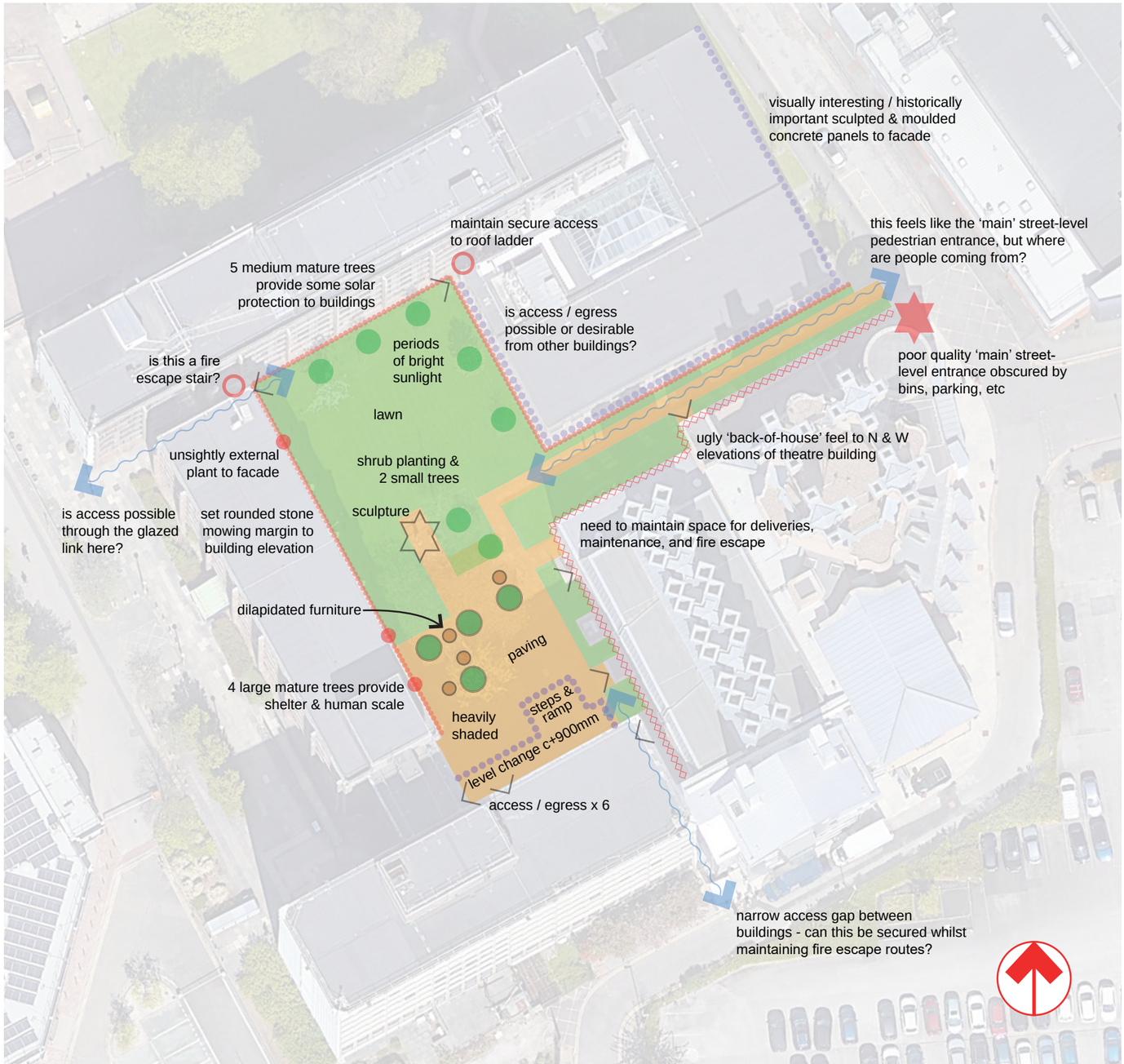
The current courtyard space is a mix of hard and soft landscape. The larger paved areas are located to the south of the courtyard, and consist of an elevated terrace approximately 900mm above ground level immediately adjacent the building, which leads to an area of flag paving at ground level towards the middle of the space. These 2 areas are connected by steps and a ramp. 4 large mature trees, interspersed with timber benches, sit within this ground level paving and form a significant overhead canopy. The broad centre of the courtyard is marked by a triptych of modestly sized 60's concrete sculptures, one approximately 1.8m high and two approximately 0.75m high, framed by low groundcover planting and two trees. The northern portion of the courtyard is dominated by mown lawn and is edged by 5 large trees in front of the adjacent building elevations.

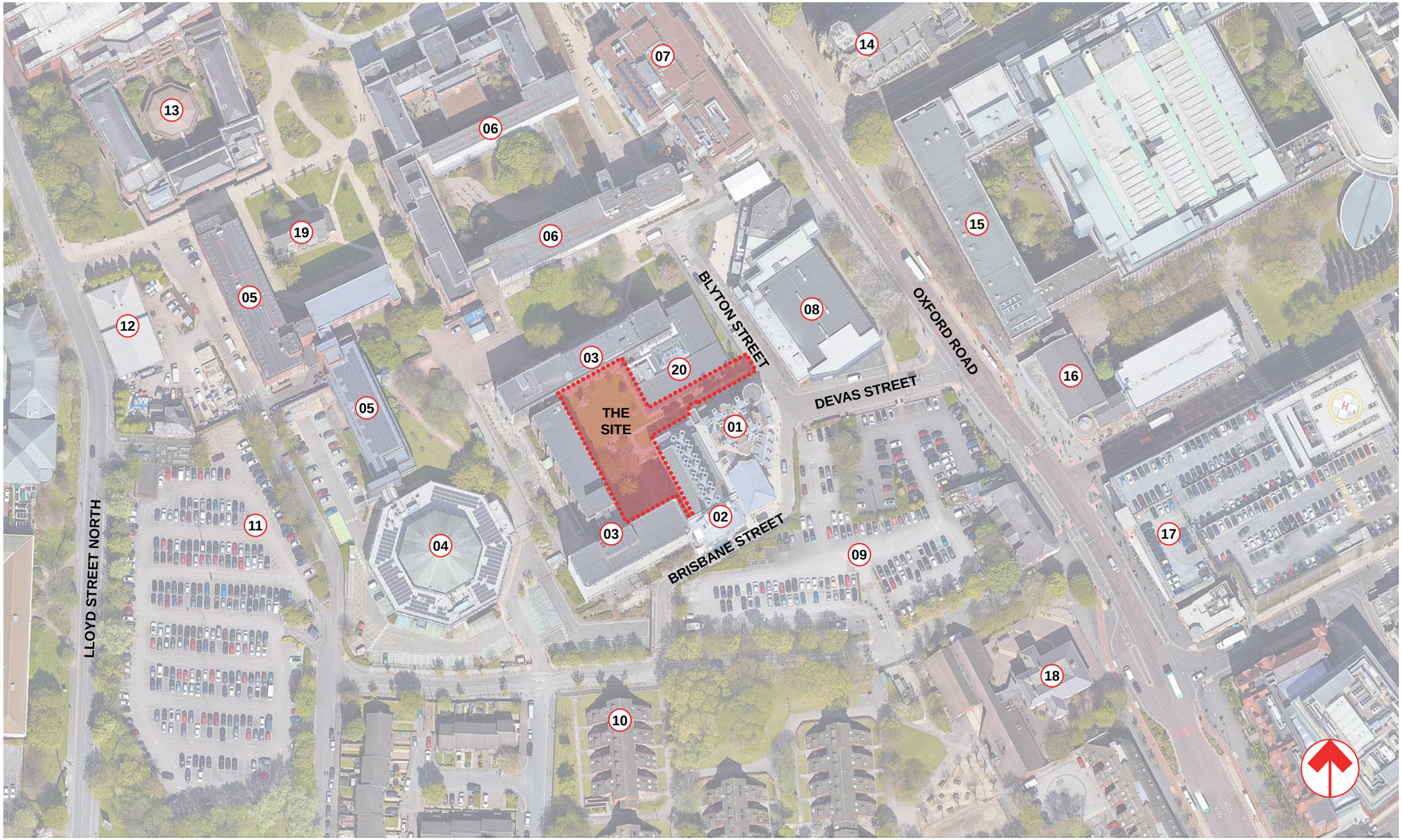
The western and northern elevations of the adjacent Contact Theatre building have a 'back-of-house' feel, consisting of fire escapes and plant and plant access, and have a negative visual impact on the space.

Access into the current courtyard is not controlled, and open to all. The route to the east, from Blyton Street, has the feel of being the primary access, in part due to its width relative to the other entrance. It is a simple linear paved path with lawn either side. The route to the south, from Brisbane Street, is very narrow and exists in the separation between the Ellen Wilkinson and Contact Theatre buildings. It provides servicing and emergency egress and is a mix of asphalt, pavers, gravel and informal grass.

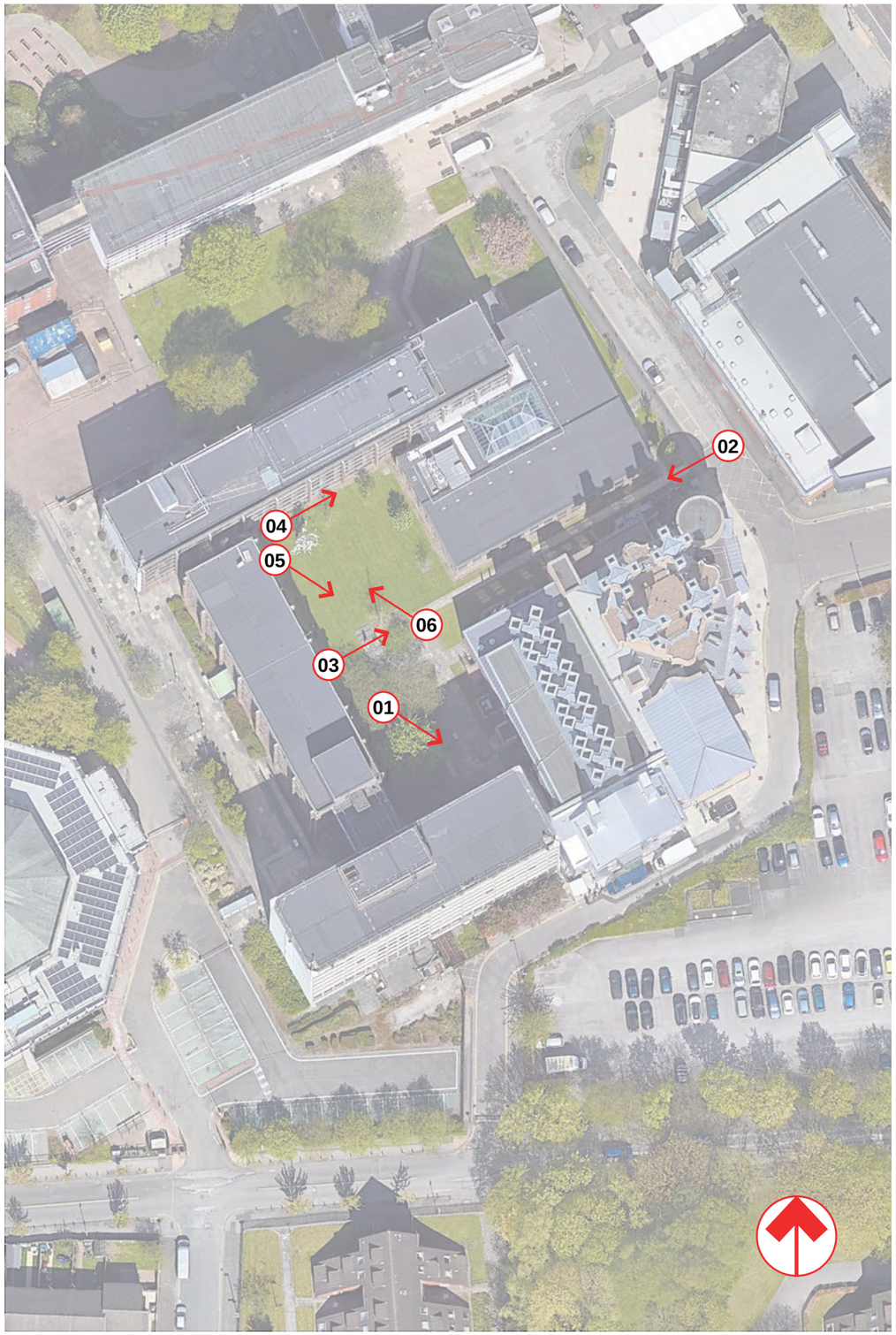
The courtyard has a very muted feel largely as a result of the surrounding architecture, and the colours contained within the building elevations. This is compounded by the generally tired feel of the existing materiality, and the high degree of shading experienced particularly at the southern end of the space.

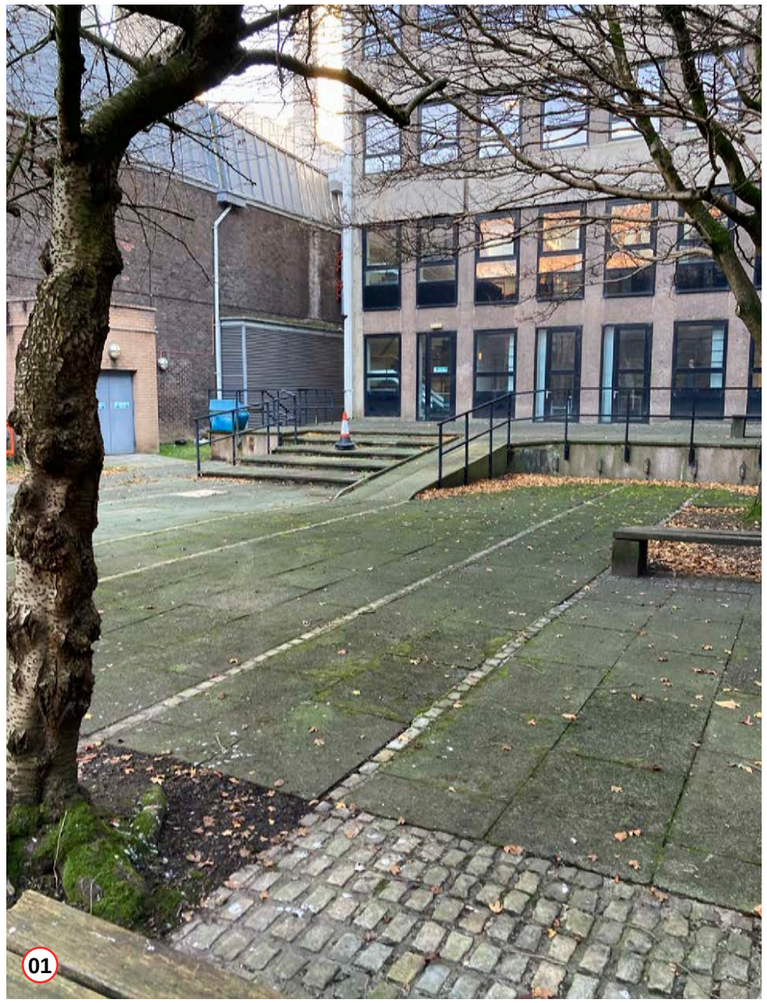
The space is heavily overlooked due to the surrounding university campus buildings, particularly to the south, west, and north edges where the existing buildings are at their tallest.





01 Contact Theatre
02 Contact Theatre Extension
03 Ellen Wilkinson Building
04 A.Q.A. Building
05 Mansfield Cooper Building
06 Samuel Alexander Building
07 Students Union
08 Manchester Academy
09 Dilworth Street Car Park
10 Whitworth Park Halls of Residence
11 Cecil Street Car Park
12 Environmental Services Unit
13 Main Library
14 The Holy Name Church
15 Stopford Building
16 Horniman House
17 Nelson Street Multistorey Car Park
18 Grove House
19 Stephen Joseph Studio
20 Humanitarian & Conflict Response Institute


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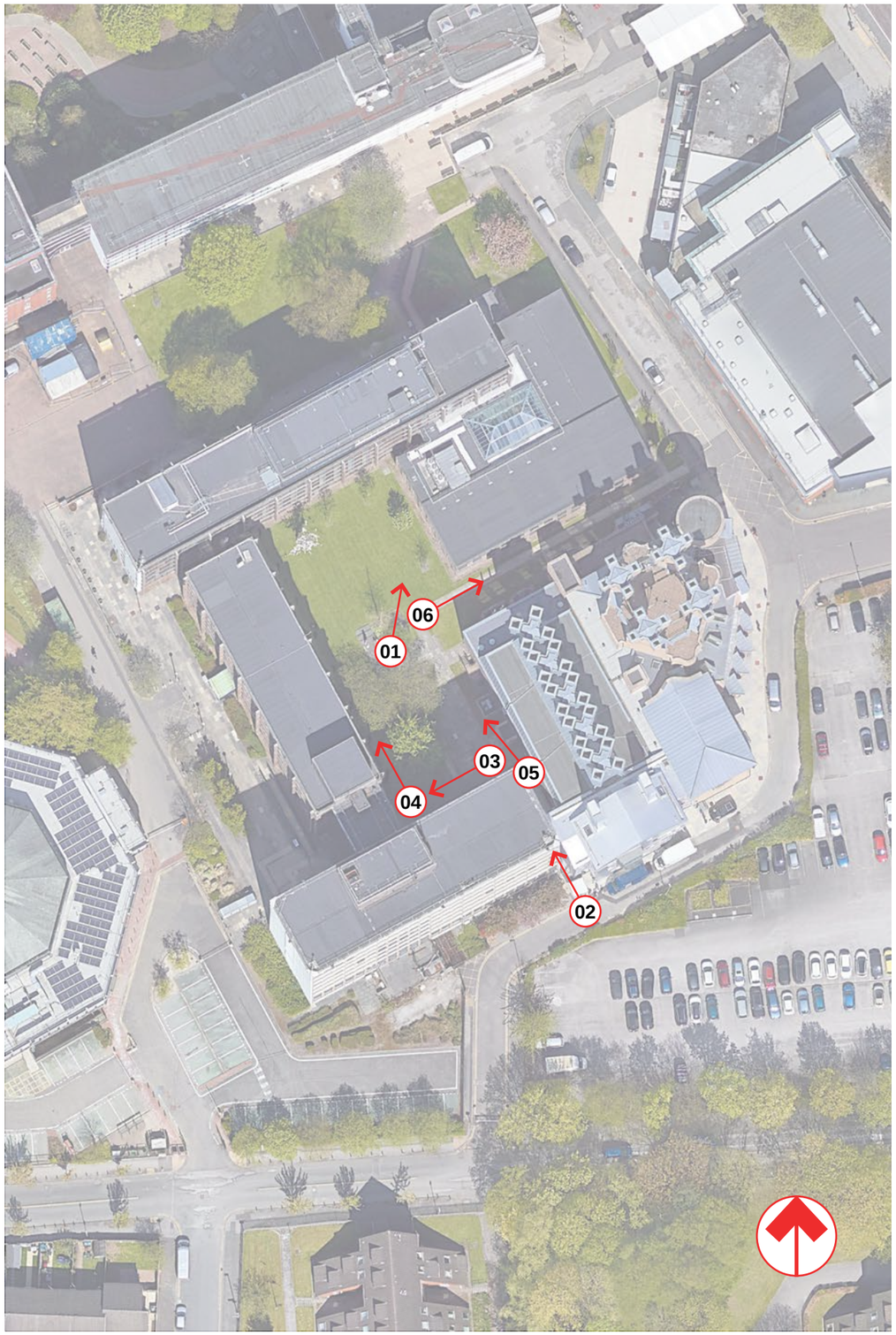

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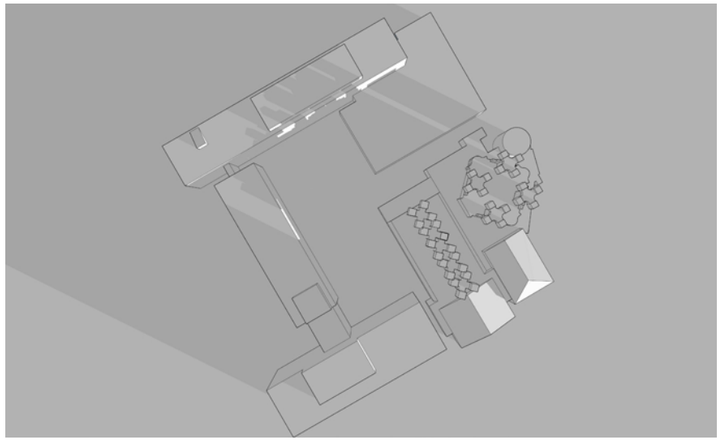

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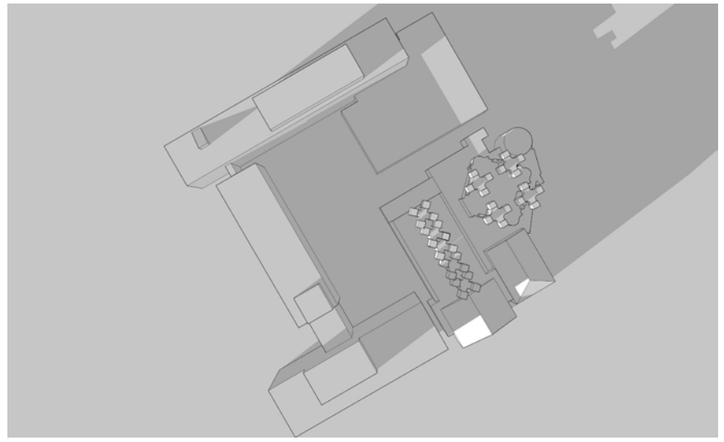

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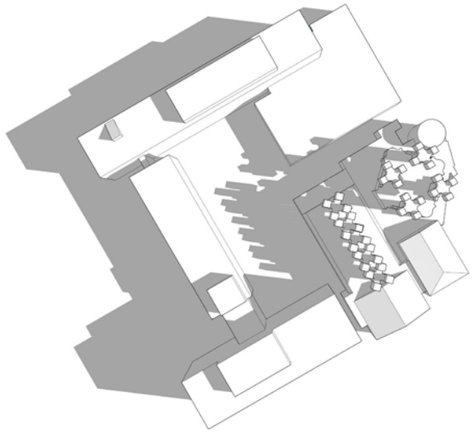
February 15th @ 8am



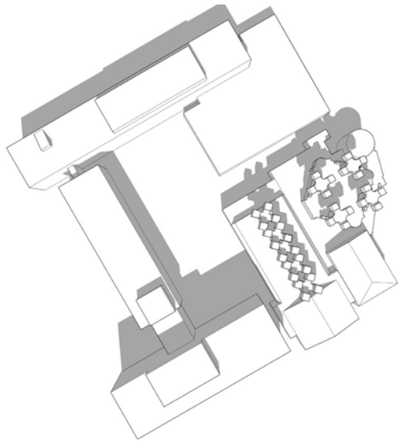
February 15th @ 12 midday



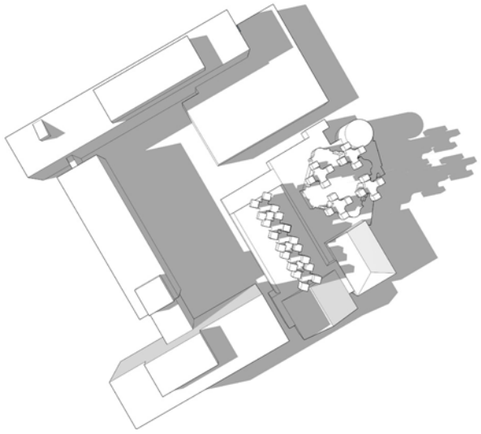
February 15th @ 4pm



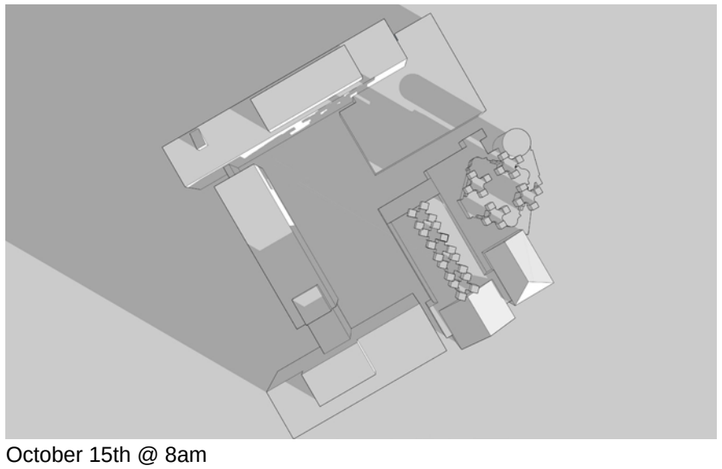
June 15th @ 8am



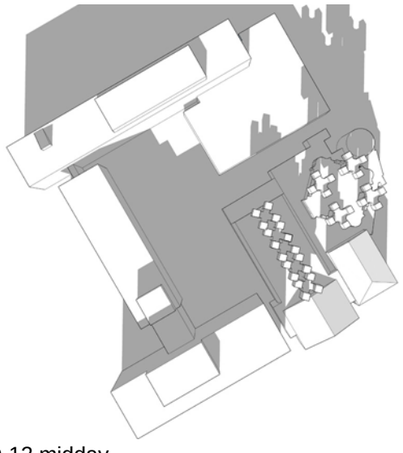
June 15th @ 12 midday



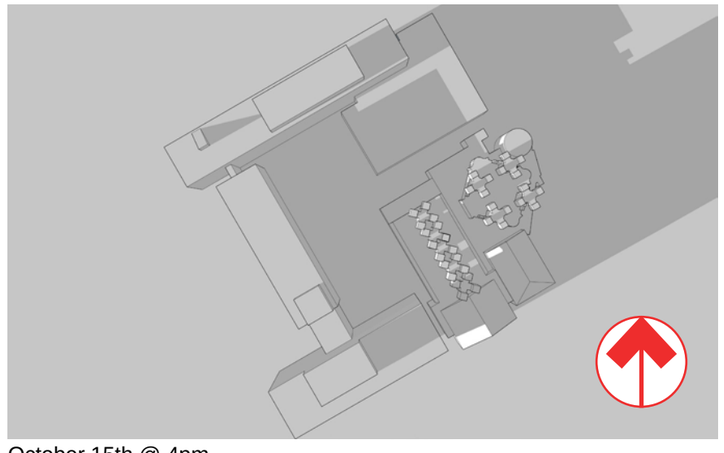
June 15th @ 4pm



October 15th @ 8am



October 15th @ 12 midday



October 15th @ 4pm

Strengths

- surrounding architecture
- mature trees
- large space
- multi-aspect space
- enclosed
- off the beaten track
- overlooked
- existing sculpture
- sun trap late-spring to early autumn

Weaknesses

- materials look tired
- area feels abandoned
- courtyard in shade esp. to the south
- adjacent theatre back-of-house
- space is off the beaten track
- landscape feels dated
- quad is under-used
- little opportunity to re-use materials
- large space

Opportunities

- interesting use of level change
- screening the theatre
- retaining the mature trees
- large enough to accommodate multi-uses
- strong architectural heritage
- retaining the sculpture
- opportunity to create a landscape ‘heart’
- scope to bring together 4 very different buildings
- chance to establish inside / outside language
- improve site biodiversity

Threats

- funding / budget
- competing / misaligned stakeholder needs
- response to architectural styles
- location of below-ground services
- poorly developed client brief
- establishing a consistent user-base
- lack of sufficient access points from adjacent buildings

Consultation & Engagement

Regular consultation and engagement has been undertaken between the design team and both the client team and wider stakeholder members.

For example, regular design team meetings (DTM's) and client meetings have been held over the preceding months from the project inception in December 2022 up to the point of planning submission, at intervals to ensure the successful development of the scheme. Regular presentations have been made to the client to ensure buy-in to the proposals, to gain feedback, and to respond to their comments. Similarly, the DTM's have been invaluable in coordinating with other consultants including C&S and M&E engineers.

Significant engagement has been undertaken with the wider project stakeholders, in particular the users of the Ellen Wilkinson building. The developing proposals were presented via Teams on 31/01/23 and 15/03/23 and discussed in depth with all attendees. An online survey was also opened up to all stakeholders which allowed them to vote on a series of precedent images in order that the design team could better understand their likes and dislikes.

Finally, a pre-application advice meeting was held with an officer of Manchester City Council on 28/03/23 where guidance was sought on the scope of the planning application information, tree replacement strategy, and extent of surveys required including arboricultural, ecological, and archaeology.

Examples of the presentation material, online survey, and survey responses can be seen in the figures to the right.

Design Development

An initial 'Review of the Brief' document was circulated to the client and wider stakeholders in late December 2022. This included a number of outline proposals in response to the briefing documents and site visit. The aim of these first sketches was to better understand the most important elements of the brief, and to form a jumping off point for discussions with the client and stakeholders. For example, an informal zoning exercise of the courtyard suggested a more heavily planted space to the south, lawned area to the north, centred around the existing sculpture feature. Likewise, there was a desire expressed to increase the amount of soft landscape and permeable areas whilst decreasing the amount of hard landscape and impermeable areas.

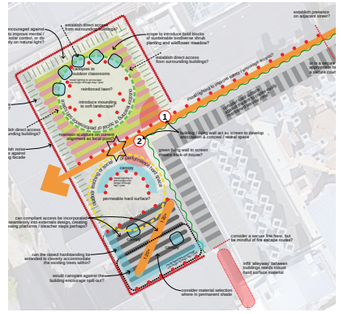
Over the following six weeks the layout was refined in response to the consultation and engagement feedback discussed in the previous section. For example, it was quickly established that a sinuous curved layout, more 'naturalised' in form, was the preferred approach. Similarly, huge importance was placed on the planting design, and in particular the desire to create a haven for wildlife including birds, bees and other pollinators. The sensitivities of the ground floor building spaces was highlighted and seating locations and screening proposals tweaked to address this. The need to screen the unsightly elevations of the adjacent Contact Theatre was underlined and a mix of soft and hard screens included. Finally, a combination of hard footpaths, ranging in widths of 1m to 2m, created primary and secondary routes around the courtyard, either to the edges or through the existing trees.

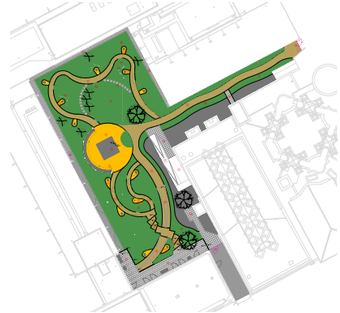
A brief hiatus through March, April, and May allowed for a site topographic survey to be undertaken and the developing proposal was subsequently updated in response to this. For example, existing trees were accurately located and below ground services identified, proposed routes under the existing trees were rationalised to reduce works in the tree root protection areas, the scope of new steps was reduced in response to existing and proposed site levels, and screening structures were relocated away from existing utilities.

In tandem with the design for the new courtyard, the escape, servicing and maintenance requirements have been considered and developed to both the courtyard and adjoining buildings. For example, the northern and western elevations of the Contact Theatre contain multiple escape and maintenance points which must be accessed as part of the courtyard layout.






21st December 2022


15th February 2023


29th June 2023


10th July 2023

Design Proposals

The current landscape proposal, as shown in the image to the right, has been developed in tandem with the client and wider stakeholders. It responds to the brief and acknowledges discussions, comments, and feedback from all vested parties.

The layout provides students, staff, and visitors with a calm quiet social space in what is currently an under-utilised area of the Universities campus.

The external proposals provide a sequence of hard and soft spaces that aim to be enriching and varied, allowing users to retreat in isolation or socialise in a group scenario.

A simple network of sinuous routes, varying in width, interweave with a rich tapestry of biodiverse soft landscape, making best use of a number of existing large mature trees.

The current landscape proposal can be broadly broken down into six key areas, and the following pages describe these areas in more detail:-

01 - Main entrance access

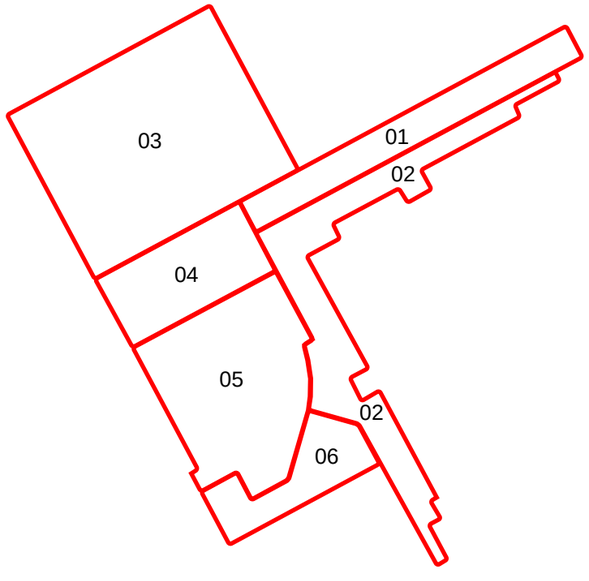
02 - Theatre servicing

03 - Northern lawn

04 - Central Social space

05 - Southern wooded glade

06 - Terrace





01 - Main Entrance Access

The main courtyard space is accessed from Blyton Street, to the east, via a new 2.1m wide linear footpath that runs between the existing HCRI and Contact Theatre buildings.

A new 2.4m high metal louvred fence and gate forms a secure line at the entrance, running from the corner of the HCRI building. The scope of access control here, whether automated or manual, is still to be confirmed by the University but the intention is that this access will be used for fire escape.

The new footpath, running east to west, is constructed from permeable resin bound gravel and bordered using aluminium metal edge.

To the north of the new footpath, in front of the HCRI building elevation, three long raised planters are to be installed parallel to the building elevation which provide growing space for the users of the Ellen Wilkinson building. The intention is that these planters are populated and maintained by staff and students, not by the University Estates Team. The planters are simple metal structures, polyester powder coated in a colour sympathetic to the surrounding architecture, to be agreed. At ground level the existing cobbled stone surface trim around the HCRI building is to be retained, helping to delineate a working area between the planters.

To the south of the new footpath, in front of the Contact Theatre building elevations, a bold linear mixed species hedge is to be planted to provide a soft screen edge to this unsightly view. Evergreen and semi-evergreen species ensure a year-round barrier, and the intention is that the hedge will be maintained at between 1.5 and 1.8m in height.



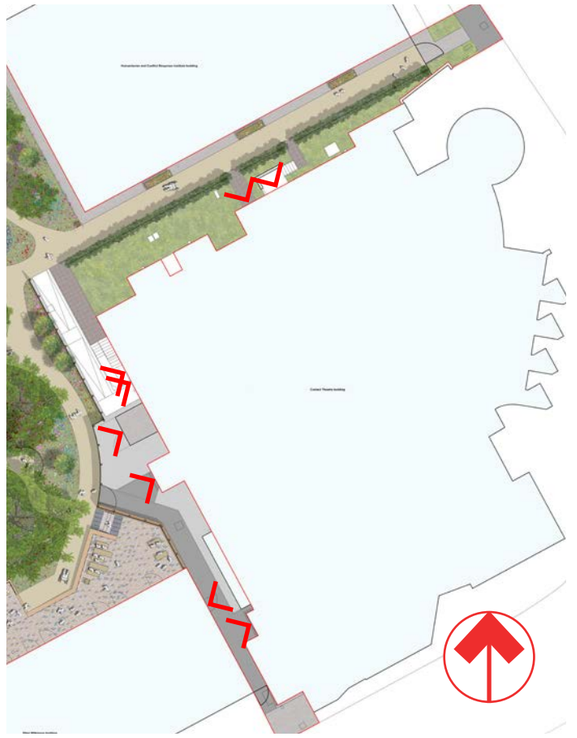
02 - Theatre Servicing

The northern and western elevations of the Contact Theatre are home to a number of emergency and servicing access points. Furthermore, the elevational treatment is reflective of the ‘back-of-house’ feel here. The design for the new courtyard space to the Ellen Wilkinson building has given consideration to these egress points and ensures that their current functionality is maintained, whilst providing a degree of screening to these unsightly elevations.

The two doors to the northern elevation are serviced via a new paved footpaths leading to a break in the new screening hedge and giving access out onto Blyton Street.

The two doors to the north-west corner of the theatre are at upper-ground and lower-ground levels. The door at lower-ground level is accessed via a new paved footpath which leads to a set of existing steps down. The door at upper-ground level is accessed via a new ramp structure which is not part of this application but is expected to be insitu in time for the installation of the courtyard. This ramp ‘plugs’ into the new linear path described above. These doors and the adjacent ramp structure are screened by a new horizontal slatted timber screen fence, described in more detail later in this report.

Access to the remaining doors on the western elevation of the theatre is provided via two locations. The new timber slatted screen fence extends along the full length of this elevation, tying into the corner of the Ellen Wilkinson building, and a door is included in the screen allowing escape out of or access into this zone. Similarly, a new 2.4m high metal louvred fence and gate forms a secure line at the south-east corner of the Ellen Wilkinson building, running across to the Contact Theatre. The combination of a new asphalt footpath and gravelled margin along this elevation provides a robust surface for users. The scope of access control here, whether automated or manual, is still to be confirmed by the University but the intention is that this access will be used for fire escape.











03 - Northern Lawn

The northern lawn and surrounding landscape aims to take advantage of the sunnier aspects of the site, to the northern and eastern edges of the space. The space is bounded on three sides by buildings and contains 5 existing trees, all of which are to be retained. The structure of the overall space is defined by a new sinuous footpath, constructed of permeable resin bound gravel and bounded using aluminium metal edge. The path is broadly 1m in width helping to create an intimate calm experience as users navigate the space, encouraging people to take their time and admire the surrounding soft landscape. The path is punctuated with small seating areas, consisting of two timber cube seats with a backdrop of groundcover planting and a new curved hazel hurdle timber screen behind. These aim to provide an element of privacy for users to quietly socialise, whilst helping to dampen any noise to the surrounding building elevations.

Within this new footpath is a small area of lawn. This space is purposely designed to be simple, and encourages users during the warmer or drier months to socialise seated or laid out on the grass. A mixed mowing regime will allow some areas of the lawn to become longer during the year, whilst others will be kept low for seating and informal routes through. To the south-east corner of the lawn space a habitat and wildlife pond is to be created. The pond is broadly 600mm deep at its deepest but contains a number of shelves at varying depths to try and attract and encourage a greater diversity of flora and fauna through a range of planting types. The pond is lined and will be surfaced / edged using a range of stones, cobbles, and rocks to try and deter people from entering the water. Planting will be installed in baskets with species selected to thrive at the various depths of water, and to attract insects, amphibians, and birds.

Finally, the space outside the new footpath, adjacent the building elevations, is to be planted with a generous mix of groundcover planting designed to attract wildlife and provide year-round visual interest. A combination of shrubs and perennials, of both evergreen and herbaceous species, have been selected to take advantage of the sunnier / dappled shade aspect of the space.



04 - Central Social Space

The focal point of the central social space is the existing sculpture, which has been retained in its current location, and a new curved high-back bench. The aim of this space is to bring together the northern lawn and southern wooded glade, acting as a meeting point and transition space between the two.

A circular island has been defined at the heart of the courtyard space, bounded by metal edge, and is split into three complementary areas.

To the east of the circle an area of lush groundcover planting is to be installed underneath two existing trees which are to be retained. These trees help to frame the existing sculpture behind ensuring it is partially visible as users enter from the new linear footpath to the east.

In the middle of this circle the existing sculpture is to be retained on its existing plinth. Either side of the main plinth are two lower stepped platforms which are to be removed in the proposed landscape scheme. The edge to the main retained plinth will be made good and the planting described above extended around to form a new soft landscape setting to the sculpture.

To the west of the circle a gathering and circulation space is created, surfaced in permeable resin bound gravel, and contained using a large, curved, high-backed seat. The seat is intended to create a sense of enclosure here and provide audible screening to the building elevations behind. The generous length of the seat, together with its inherent curve, aims to provide a quiet group social setting here, with a vista of artwork and soft landscape in front.

Around the circular island, in the wider setting, a generous band of rich groundcover planting designed to attract wildlife and provide year-round visual interest is located behind the curved seat, continuing the soft landscape established in the northern lawn. Elsewhere, a further ring of resin bound gravel footpath ties the central social space into the wider circulation routes.



05 - Southern Wooded Glade

The layout to the southern wooded glade is defined by the four large mature existing trees that are to be retained in this location, and the sense of place created by the overhead tree canopy cover.

A new narrow weaving footpath, 1m in width, is carefully positioned to run underneath and between the existing trees. It is surfaced in permeable resin bound gravel, bounded using aluminium metal edge, and constructed using a 'no-dig' detail. This footpath links the Central Social Space to the Terrace and wider footpath network around the courtyard, creating a second alternative route through the wider area. Part-way along this weaving footpath two small intimate seating areas are positioned, laid out in the same fashion as the Northern Lawn and consisting of two timber cube seats with a backdrop of groundcover planting and a new curved hazel hurdle timber screen behind. Again, these aim to provide an element of privacy for users to quietly socialise, are resting points along the wider journey around the space, whilst helping to dampen any noise to the surrounding building elevations.

To the eastern edge of this area a sweeping curved footpath creates the main direct route up to the new terrace space outside the existing building entrance in the south-west corner. Again surfaced in permeable resin bound gravel, the route is 2m wide serving as the primary circulatory route around this end of the courtyard. Servicing and escape routes to and from the Contact Theatre are also accommodated here. This footpath defines the edge of the courtyard space, where a generous soft landscape margin with multistem trees in tandem with a horizontal slatted screen fence help to shield the unsightly Contact Theatre elevation behind.

Finally, the space underneath the existing tree canopy and adjacent the building elevations is to be planted with a generous mix of groundcover planting designed to attract wildlife and provide year-round visual interest. A combination of shrubs and perennials, of both evergreen and herbaceous species, have been selected to take advantage of the shaded aspect of the space.



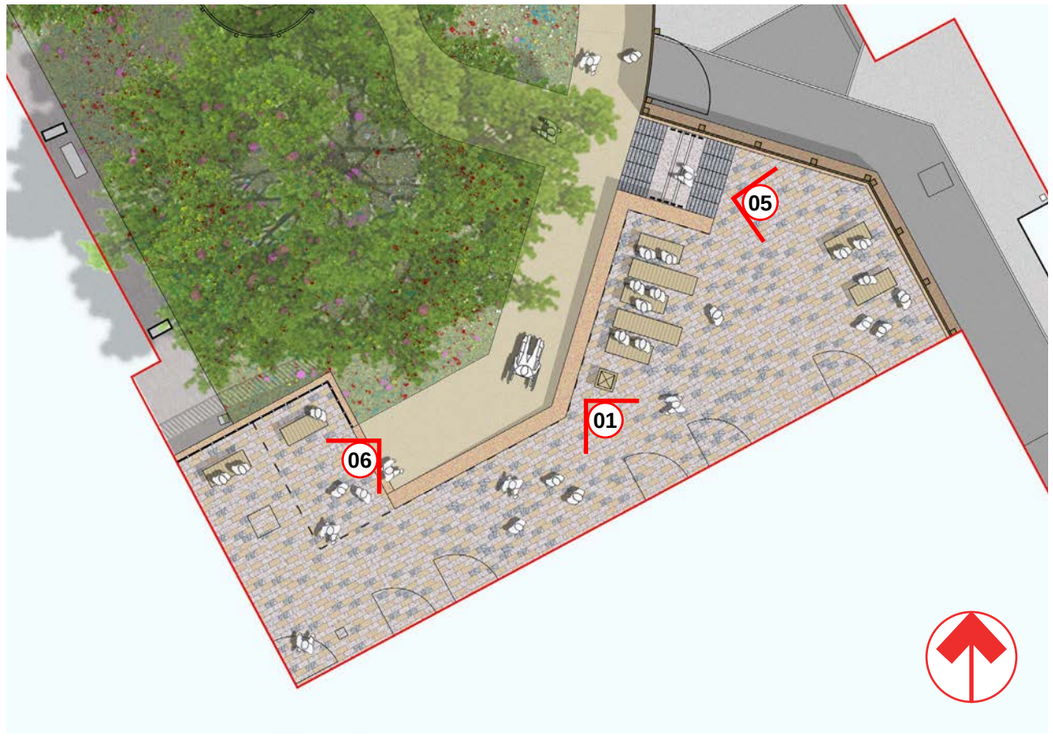
06 - Terrace

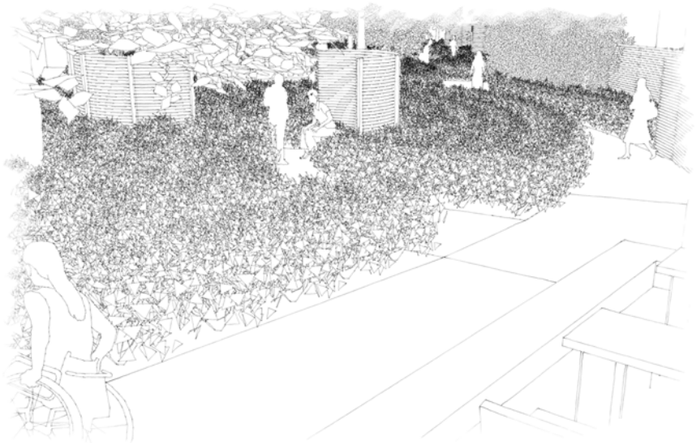
The proposed terrace space re-imagines an existing outdoor hard social area that is presently uninviting and underused. The current raised terrace consists of a large rectangular plane of concrete paving, is accessed via steps or a ramp, edged with a utilitarian two-rail balustrade, and houses a single short linear bench.

The proposed raised terrace reduces the scale of the existing area but introduces more furniture, including tables. It better responds to the building elevation, and the 'C' shape of the proposed space creates visual interest and better links the terrace to the wider space.

The surface of the new terrace consists of precast concrete granite aggregate small unit pavers, laid in a linear random mix of three complementary colours, parallel to the longest building elevation. Street furniture is strategically located between the numerous exit points along these elevations, ensuring access and egress is maintained, and orientated where possible to provide views out onto the wider courtyard.

Generally, the terrace is edged with a brick-faced retaining wall to accommodate a c900mm localised level change here, with rowlock brick coping. To the western edge of the terrace a short length of vertical-bar balustrade protects users from fall and encloses two benches, creating a small social space off from the main graded footpath approach. The central part of the terrace is more open where the level change does not require protection from fall. A number of seats, benches, and tables are positioned here, where the space widens, to take advantage of views into the courtyard and allows users to step straight off the terrace into the wider space. Finally, the eastern end of the new terrace provides stepped access down onto the wider circulation routes, but also extends the slatted screen established in the central zone of the courtyard to the corner of the Ellen Wilkinson building, ensuring a continuous screen to the Contact Theatre elevation.

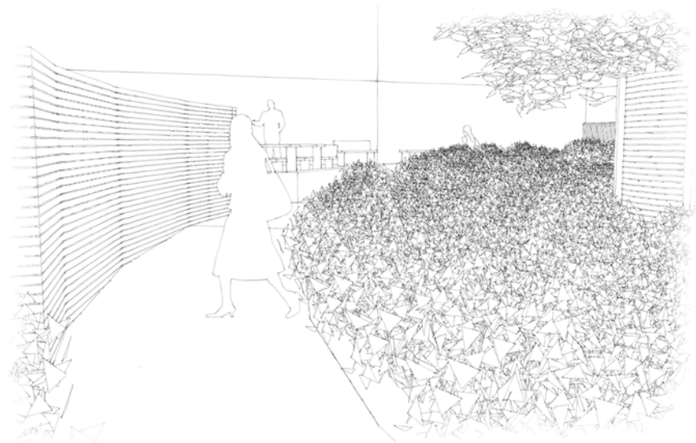




View 01



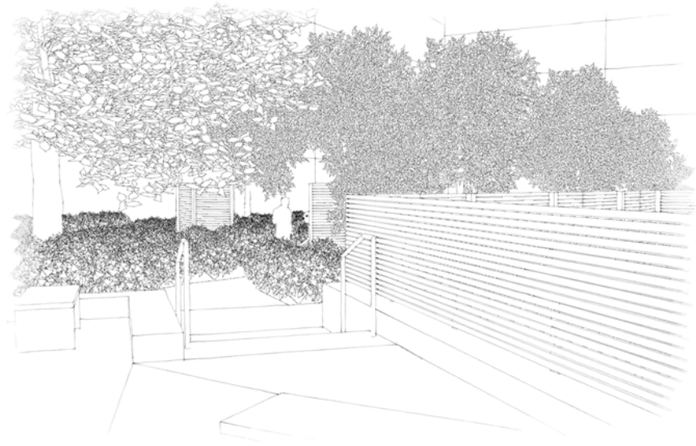
View 02



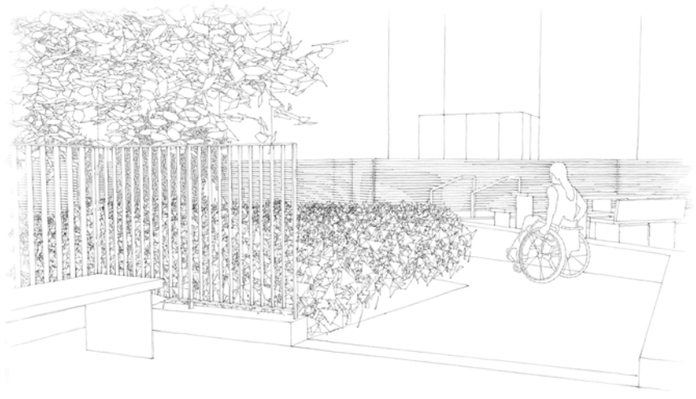
View 03



View 04



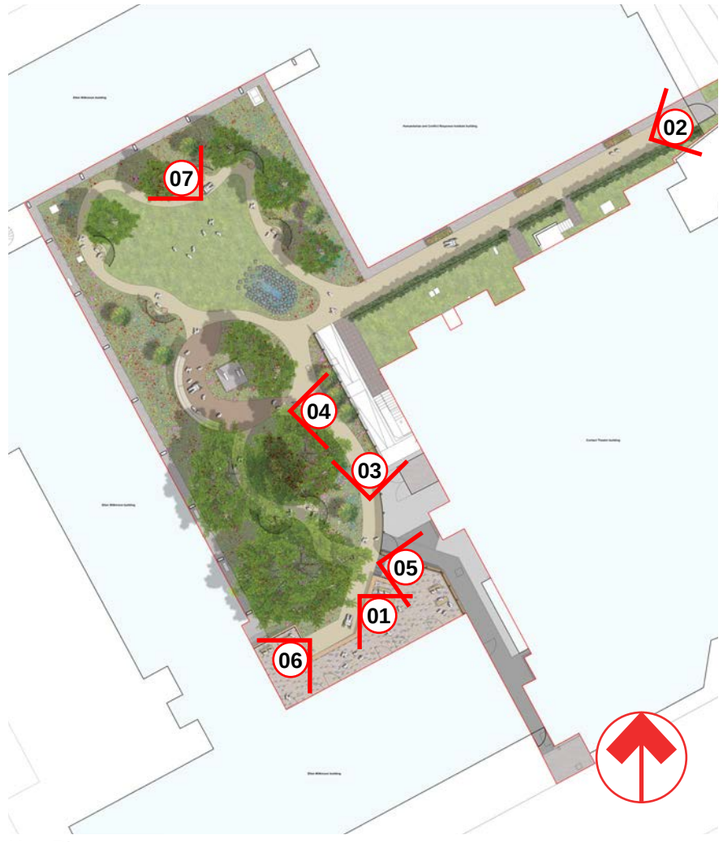
View 05



View 06



View 07



Key Plan



Close-up of the intimate small-scale seating areas around the Northern Lawn



High-level view of the whole courtyard, looking south from the northern wing of the Ellen Wilkinson building

Security, Circulation, & Access

Access into the new courtyard space is intended to be controlled in order to ensure safety and security for all users. The existing secure line provided by the surrounding building elevations will be augmented with two new fence-lines and access gates at the eastern-most and southern-most corners of the space.

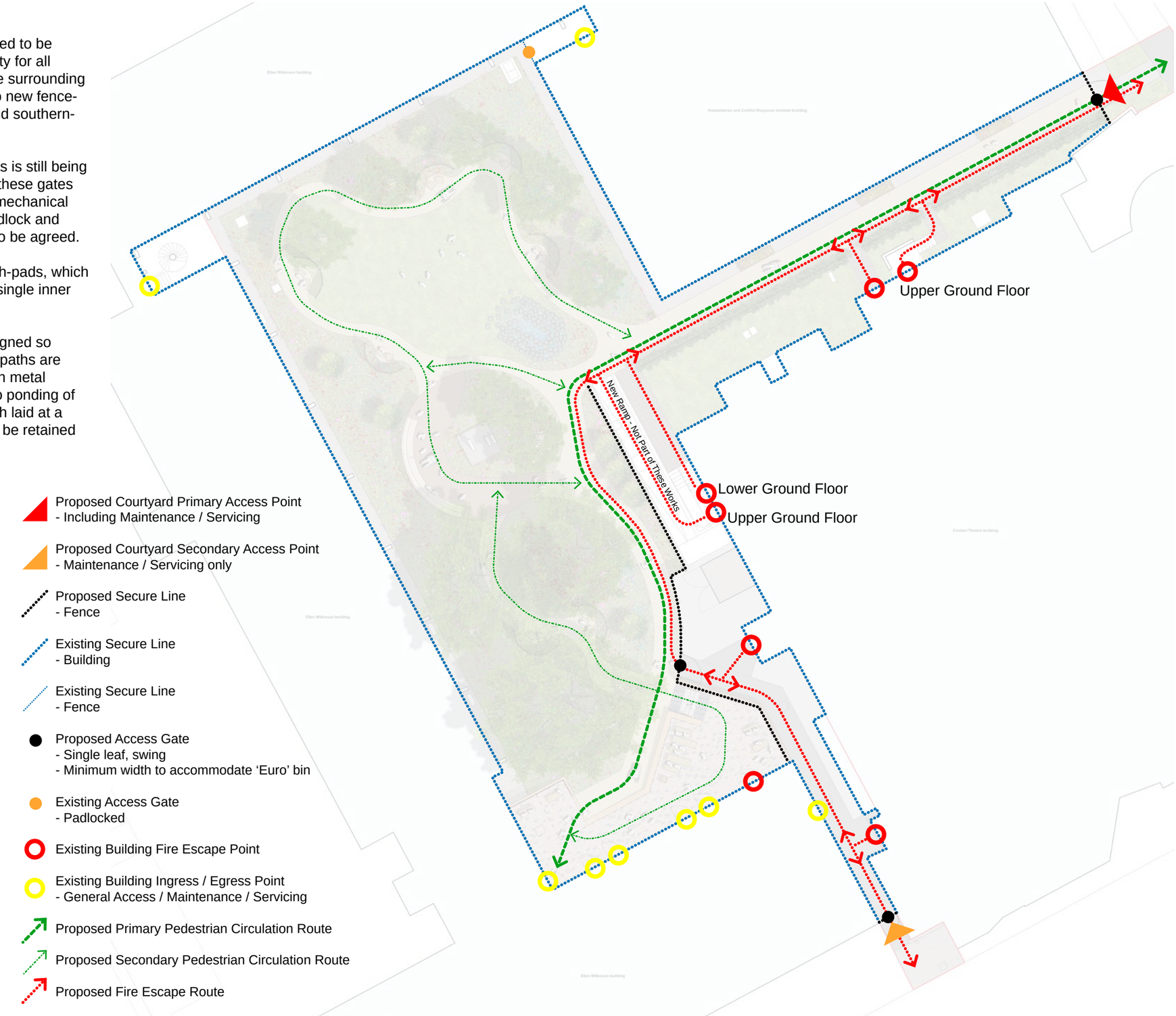
The issue of automation of these access points is still being considered by the University, and so whether these gates are controlled by mag-lock, fob / keypad and mechanical gate-closers, or controlled more simply via padlock and spring-loaded self-closers for example is still to be agreed.

Fire escape will be enabled via the use of push-pads, which will be located at the two outer gates and the single inner gate.

Circulation and escape routes have been designed so as to be accessible for all. The majority of footpaths are permeable resin bound gravel constrained with metal edging and laid with notional falls to ensure no ponding of water. There are three short lengths of footpath laid at a 1:21 grade - two adjacent the existing trees to be retained at the southern end of the space to ensure a no-dig construction here, and one providing access onto the terrace space, with an alternative stepped route as well. Supplementary routes to the periphery of the courtyard are either small and large unit paving or asphalt.

No vehicle access is foreseen as being required into the courtyard, other than a small MEWP for basic maintenance functions. The primary access point on the eastern boundary will be sized accordingly, with the associated 2.1m wide footpath sufficient for this operation.

Access to all functioning existing doors to building elevations, whether entrance / exit, fire escape, or servicing has been maintained.



Trees & Ecology

An **Arboricultural Survey** was undertaken, to BS5837:2012, by 'Arbtech Consulting Limited' on the 16th of June 2023 (extract right).

There are 11 Nº existing trees within the current layout of the Ellen Wilkinson Quad space, consisting of five Cherry, two Birch, and one each of Maidenhair, Maple, Spindle, and Sweetgum species. These existing trees range from C1 to B1 on the 'Cascade Chart for Tree Quality Assessment', consisting of six grade 'C' trees and five grade 'B' trees. Refer to Arbtech Consulting Limited report 'Arboricultural Survey to BS5837:2012' dated 29 June 2023 for full details.

All 11 Nº existing trees are to be retained and integrated in the proposed landscape layout.

A **Preliminary Ecological Appraisal** was undertaken, to all relevant guidance and standards, by 'Arbtech Consulting Limited' on the 22nd of June 2023 (extract far-right).

The existing site is made up of five habitats consisting of 'buildings', 'hard standing', 'modified grass', 'introduced shrubs', and 'scattered urban trees'. There are no protected or non-native invasive plant species on the site. No designated sites, habitat species, or insect / animal species are expected to be impacted by the proposed development.

A number of 'Biodiversity Enhancement Opportunities' have been suggested in the report, of which the creation of a wildlife pond, provision of bird and bat boxes, installation of an insect hotel, and creation of brash and log piles are to be included in the proposed scheme.

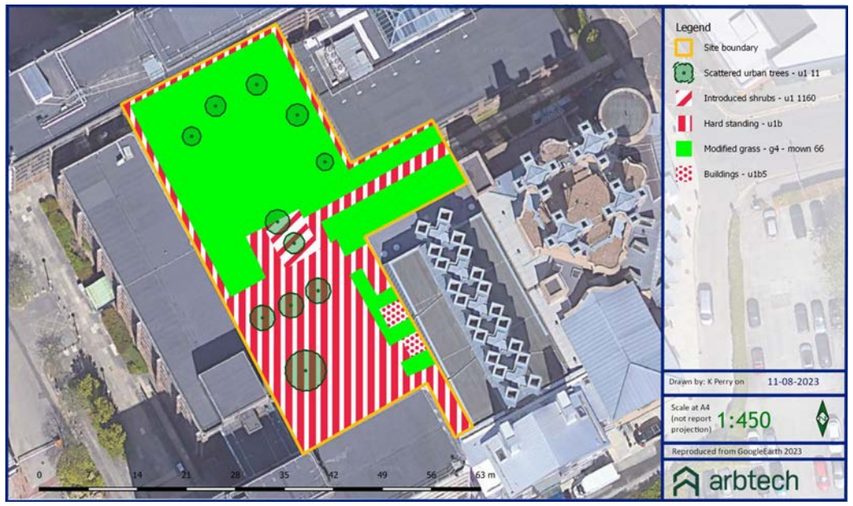
Refer to Arbtech Consulting Limited report 'Preliminary Ecological Appraisal' dated 11/08/2023 for full details.

A **Biodiversity Net Gain** review was undertaken, to all relevant guidance and standards, by 'Ecology and Land Management' on the 3rd of November 2023 (extract below-right and far-right).

This utilised Biodiversity Metric 4.0 to calculate the biodiversity net gain of the proposed landscape when compared against the existing situation, and indicates that a 12% improvement will be achieved.

Refer to Ecology and Land Management report 'Biodiversity Net Gain / Net Loss Report' dated November 2023 for full details.





Biodiversity Net Gain Assessment
Ellen Wilkinson Courtyard, UoM

Compensation – Linear Features

4.10 228.9m of ornamental is proposed within the site. This includes a mixture of ornamental shrubs including *Lonicera ligustrina var. yunnanensis* and *Berberis verruculosa*.

Table 6 – Summary of Compensation Linear Biodiversity Units

Compensation Linear - Hedgerow	Km	Distinctiveness Score	Target Condition Score	Biodiversity Units
Non-native ornamental	0.037	v.low	Poor	0.04
Total	0.037		**Total**	**0.04**

5.0 Conclusion

5.1 Biodiversity off setting has been used to inform the habitat retention, restoration, creation and enhancement proposals for the proposed site. The results show that the proposals will lead to an overall delivery of net gain in linear biodiversity units and habitat biodiversity units.

5.2 The development is valued at 0.45 units for habitats and 0 units for linear features. The retention of individuals trees and creation of a range of soft landscape including trees, ornamental shrub, modified grassland, wildflower grassland as well as planting of plants for pollinators will mitigate the loss of habitat biodiversity units. In summary the resulting change biodiversity units are 12.04% (0.05 units) for habitats and 100% (0.04 units) for hedgerows.

5.3 This means that the trading rules for habitats have been satisfied. This also means that the proposals meet the national planning policy (Ministry of Housing, Communities & Local Government, 2021) and the environment Bill 2021. See Table 7 for summary. Overall, if all the landscape proposals are followed as prescribed the current proposed development will make a net gain in terms of habitat biodiversity units and a net gain in terms of hedgerow biodiversity units. Results from the biodiversity calculator have been included in Tables 7, 8, 9 and 10.

Produced by Ecology & Land Management, November 2023 6

FINAL RESULTS		
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	0.05
	Hedgerow units	0.04
	Watercourse units	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	12.04%
	Hedgerow units	100.00%
	Watercourse units	0.00%
Trading rules satisfied?		Yes ✓

Soft Materials Palette

The proposed soft landscape is intended to be the key feature of the newly designed courtyard layout.

The is a strong desire from the University, and key stakeholders from the School of Environment, Education, and Development, that the space should have an emphasis on biodiversity and wildlife friendly planting species.

The proposed palette is intended to provide a rich, year-round sensory experience based on mixed herbaceous planting that uses a combination of shrub and perennial species of both deciduous and evergreen types. UK native and RHS 'Plants for Pollinators' species have been utilised wherever possible.

The existing trees within the courtyard, all of which are to be retained, are supplemented with addtional new small multistem trees strategically positioned to either provide a backdrop to seating areas or to act as a soft screen in front of the new timber slatted fence. Betula utilis 'Jacquemontii' has interesting white bark, looks good in winter, is tolerant of most soil types, and is known for attracting bees and birds. Cornus kousa var. chinensis brings spring and autumn interest, is again tolerant of most soils, and has strong orange and red foliage around September and October. Finally, Prunus maackii 'Amber Beauty' has shiny cinnamon-red or golden brown that peels off in thin papery strips horizontally, provides year long visual interest, provides warming colour to smaller scale spaces, and has bountiful fruit for wildlife. The multistem trees will be installed at a range of heights, varying between 1.5-2m and 2.5-3m to provide increased visual interest and scale.

A bold linear hedge, to be maintained between 1.5m and 1.8m in height, is to be installed as a screening tool to the rear elevation of the Contact Theatre. A mix of Fagus sylvatica, Fagus sylvatica 'Purpurea', and ovalifolium 'Aureum', the hedge contains semi-evergreen and evergreen species of which the Common Beech is native. All are attractive to wildlife including birds, butterflies, moths, and insects, and the hedge is easily maintained requiring only one or two cuts a year.

A small wildlife pond with associated aquatic planting is proposed to the southern tip of the Northern Lawn space. The pond has been designed with a number of shelves at varying depths of 140mm, 200mm, 350mm, and 600mm in order to try and attract varying forms of aquatic wildlife and species have been selected to flourish in these various conditions.

Three herbaceous planting mixes have been coordinated that correspond to three broad areas of the courtyard defined by its sun exposure. These are 'sunny' to the north, 'shady / sunny' to the centre, and 'shady' to the south. As discussed above the herbaceous planting is designed primarily to provide maximum sensory and wildlife benefits. The species to the right and overleaf will be developed further in the next work stage to detail the precise ratios of each plant in each mix, but generally will be installed in 1L pots, at 7 plants per m^2.

	Sun Exposure			Aspect				Position in Border			RHS Plants for Pollinators?		UK Native?		Evergreen?	
	Full Sun	Partial Shade	Shade	North	East	South	West	Front	Middle	Back	Yes	No	Yes	No	Yes	No
Achillea 'Walther Funcke'	•					•	•		•		•			•	•	•
Ajuga reptans		•		•	•		•	•			•		•		•	
Alchemilla mollis	•	•		•	•	•	•	•				•		•		•
Anemone × hybrida 'Honorine Jobert'	•	•			•	•	•	•	•			•		•		•
Anemone nemorosa		•		•	•	•	•	•				•		•		•
Asplenium scolopendrium		•	•	•	•			•	•			•		•	•	
Aster tongolensis 'Berggarten'	•			•	•	•	•	•			•			•		•
Athyrium niponicum f. metallicum		•	•	•	•			•				•		•		•
Buxus sempervirens 'Suffruticosa'		•	•	•	•	•	•	•			•			•	•	
Calamagrostis × acutiflora 'Karl Foerster'	•	•				•	•			•		•		•		•
Calamagrostis brachytricha	•	•				•	•		•			•		•		•
Caltha palustris	•	•				•	•	•			•		•			•
Campanula lactiflora 'Loddon Anna'	•	•		•	•	•	•		•	•	•			•		•
Cardamine pratensis		•	•	•	•		•	•				•	•			•
Centaurea nigra	•	•		•	•	•	•		•		•		•			•
Centranthus ruber	•					•	•		•		•			•	•	•
Cornus sericea 'Kelseyi'	•	•		•	•	•	•		•			•		•		•
Cotinus coggygria 'Young Lady'	•	•				•	•	•	•			•		•		•
Crocus × luteus 'Golden Yellow'	•			•	•	•	•	•			•			•		•
Crocus longiflorus	•				•	•	•	•			•			•		•
Deschampsia cespitosa	•	•		•	•	•	•	•	•			•		•	•	
Dictamnus albus	•	•				•	•		•		•			•		•
Digitalis purpurea	•	•	•	•	•	•	•		•		•		•			•
Dryopteris filix-mas		•	•	•	•		•		•	•		•	•			•
Echinacea purpurea 'White Swan'	•	•				•	•		•		•			•		•
Echinops ritro subsp. Ruthenicus	•	•			•	•	•		•		•			•		•
Epimedium × versicolor 'Sulphureum'		•	•	•	•		•	•				•		•		•
Eurybia x herveyi 'Twilight'		•			•	•	•	•	•			•		•		•
Galanthus nivalis		•		•	•	•	•	•			•			•		•
Galium verum	•	•		•	•	•	•	•				•	•			•
Geranium macrorrhizum 'Ingwersen's Variety'	•	•	•	•	•	•	•		•		•			•	•	•
Geranium sylvaticum	•	•		•	•	•	•		•		•			•		•
Hebe 'Pink Elephant'	•	•		•	•	•	•	•			•			•	•	
Helleborus foetidus 'Gold Bullion'	•	•	•	•	•	•	•		•		•			•	•	
Helleborus purpurascens	•	•			•	•	•	•			•			•		•
Heuchera 'Huckleberry'	•	•			•	•	•	•				•		•	•	•
Hyacinthoides non-scripta	•	•		•	•	•	•	•				•	•			•
Knautia arvensis		•				•	•			•	•		•			•
Leucanthemum vulgare	•					•	•	•	•		•		•			•
Libertia formosa	•					•	•	•	•			•		•	•	•
Liriope muscari 'Ingwersen'		•	•	•	•			•				•		•	•	
Melissa officinalis	•	•				•	•		•	•		•		•		•
Osmunda regalis		•		•	•	•	•			•		•		•		•
Pachysandra terminalis	•	•		•	•		•	•				•		•	•	
Pennisetum orientale	•					•	•		•			•		•		•
Persicaria bistorta 'Superba'	•	•				•	•	•	•		•			•	•	•
Polygonatum multiflorum	•	•	•	•	•	•	•		•			•		•		•
Primula veris	•	•		•	•	•	•	•				•	•		•	•
Pulmonaria 'Cotton Cool'		•	•	•	•		•	•			•			•	•	•
Rudbeckia fulgida var. sullivantii 'Goldsturm'	•	•				•	•		•		•			•		•
Salix hastata 'Wehrhahnii'	•	•			•	•	•		•		•			•		•
Salvia nemorosa	•	•			•	•	•		•		•			•		•
Sanguisorba officinalis 'Red Thunder'	•	•			•	•	•		•	•		•		•		•
Sarcococca hookeriana var. humilis		•	•	•	•		•		•		•			•	•	
Senecio polyodon	•					•	•	•				•		•	•	•
Silphium perfoliatum	•	•				•	•			•		•		•		•
Stachys byzantina 'Countess Helen Von Stein'	•					•	•		•		•			•	•	
Stipa tenuissima	•					•	•	•	•			•		•		•
Symphyotrichum novae-angliae 'Purple Dome'	•	•			•	•	•	•			•			•		•
Tiarella 'Spring Symphony'		•	•	•	•	•		•	•			•		•		•
Verbena bonariensis	•					•	•		•	•	•			•		•
Veronica chamaedrys	•	•			•	•	•	•				•	•			•
Viburnum opulus 'Compactum'	•	•	•	•	•	•	•			•	•			•		•



Betula utilis ‘Jacquemontii’ MS


Prunus maackii ‘Amber Beauty’ MS


Cornus kousa var. chinensis MS



Fagus sylvatica


Fagus sylvatica ‘Purpurea’


Ligustrum ovalifolium ‘Aureum’



Primula japonica ‘Miller’s Crimson’


Iris ensata ‘Variegata’


Ligularia ‘Gregynog Gold’


Matteuccia struthiopteris


Rodgersia pinnata ‘Superba’


Lythrum salicaria


Typha minima


Cardamine pratensis


Houttuynia cordata

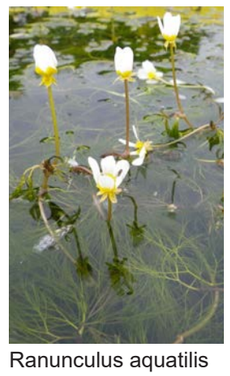

Isolepsis cernua

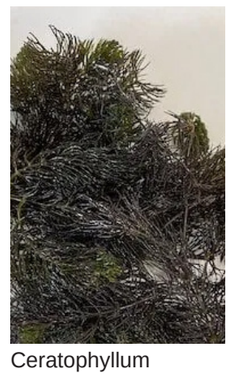

Carex acutiformis

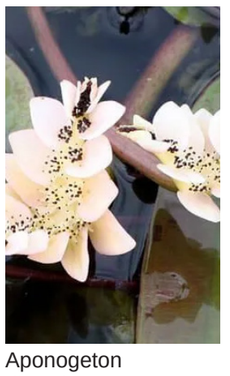

Mentha aquatica

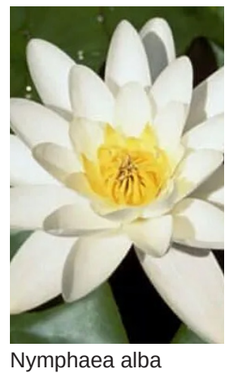

Pontederia cordata lancifolia


Alisma plantago-aquatica


Ranunculus aquatilis


Ceratophyllum demersum


Aponogeton distachyos


Nymphaea alba



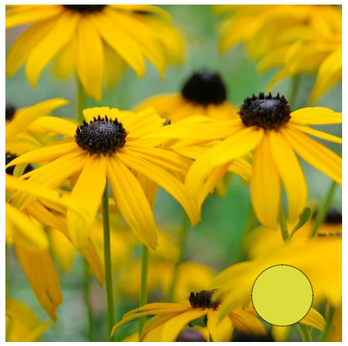
Persicaria bistorta ‘Superba’


Hyacinthoides non-scripta


Stachys byzantina ‘Countess Helen Von Stein’


Cardamine pratensis


Knautia arvensis


Rudbeckia fulgida var. sullivantii ‘Goldsturm’


Primula veris


Asplenium scolopendrium


Osmunda regalis


Centranthus ruber


Deschampsia cespitosa


Leucanthemum vulgare


Digitalis purpurea


Pennisetum orientale


Stipa tenuissima


Salvia nemorosa


Galium verum


Veronica chamaedrys


Centaurea nigra


Sanguisorba officinalis ‘Red Thunder’


Caltha palustris


Senecio polyodon


Silphium perfoliatum


Aster tongolensis ‘Berggarten’



Cotinus coggygria ‘Young Lady’


Sarcococca hookeriana var. humilis


Dictamnus albus


Buxus sempervirens ‘Suffruticosa’


Geranium macrorrhizum ‘Ingwersen’s Variety’


Geranium sylvaticum


Campanula lactiflora ‘Loddon Anna’


Calamagrostis brachytricha


Eurybia x herveyi ‘Twilight’


Dryopteris filix-mas


Symphyotrichum novae-angliae ‘Purple Dome’


Libertia formosa


Alchemilla mollis


Achillea ‘Walther Funcke’


Liriope muscari ‘Ingwersen’


Calamagrostis × acutiflora ‘Karl Foerster’


Verbena bonariensis


Echinacea purpurea ‘White Swan’


Pachysandra terminalis


Cornus sericea ‘Kelseyi’


Heuchera ‘Huckleberry’


Anemone × hybrida ‘Honorine Jobert’


Pulmonaria ‘Cotton Cool’


Athyrium niponicum f. metallicum



Epimedium × versicolor ‘Sulphureum’

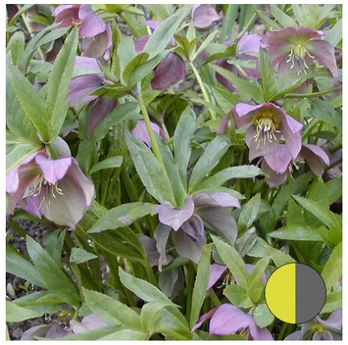

Polygonatum multiflorum


Tiarella ‘Spring Symphony’


Viburnum opulus ‘Compactum’


Melissa officinalis


Helleborus foetidus ‘Gold Bullion’


Helleborus purpurascens


Salix hastata ‘Wehrhahnii’


Crocus longiflorus


Crocus × luteus ‘Golden Yellow’


Galanthus nivalis


Ajuga reptans


Echinops ritro subsp. ruthenicus

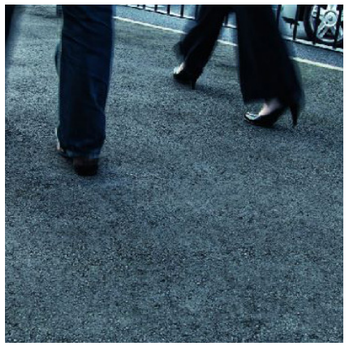

Hebe ‘Pink Elephant’


Anemone nemorosa

Hard Materials Palette

A simple palette of materials has been developed that complement the existing buildings as well as responding to the local aesthetic. The current selection of surface and furniture materials are intended to reflect both high-quality aspiration and functionality. They are hard-wearing, robust, and minimise maintenance requirements.

Where possible, permeable surface materials will be utilised, with substantial areas of resin bound gravel and loose decorative gravel forming the majority of finished. Hardstanding areas, whether permeable or not, will be laid to discharge surface-water run-off into adjacent soft landscape areas where feasible.



PA

Asphalt to Engineers detail



RGB1

Addagrip ‘Terrabase Classic’ resin bound gravel system with 6mm ‘Addabound’ surface finish

‘Golden Beach’ colour

Permeable

Or similar



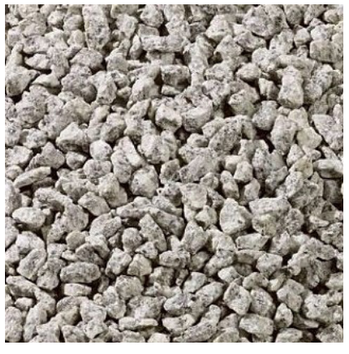
RGB2

Addagrip ‘Terrabase Classic’ resin bound gravel system with 6mm ‘Addabound’ surface finish

‘Golden Field’ colour

Permeable

Or similar



DG

CED Stone Group ‘Silver Grey Granite Aggregate’ aggregate

‘Silver Grey’ colour

10mm diameter

Or similar



BP

Marshalls ‘Modal Textured’ granite aggregate concrete pavers

300 x 100 x 80mm
200 x 100 x 80mm

50% ‘Mid grey’
35% ‘Oatmeal’
15% ‘Silver grey’ colours

Or similar



FP

Marshalls ‘Perfecta’ yorkstone aggregate concrete pavers

400 x 400 x 50mm

‘Natural’ colour

Or similar



ST

Marshalls ‘Conservation X’ granite aggregate concrete step units

1000 x 400 x 150mm

‘Silver grey’ colour

With integral visibility strips

Or similar



C

Marshalls ‘Corduroy’ hazard warning tactile concrete pavers

4000 x 400 x 50mm

‘Charcoal’ colour

Or similar



C&S

CED Stone Group

‘Highland Cobbles’
200 - 400mm dia.
30% of overall area

‘Scottish Beach Cobbles’
50 - 200mm dia.
55% of overall area

Remaining 15% to be ‘Silver Grey Granite Aggregate’ aggregate

Or similar



W1

Brick-faced retaining wall with concrete substructure

High-quality facing-brick to complement existing adjacent buildings

Brick-on-edge Rowlock coping

Or similar



SE1

Landmark Street Furniture ‘Sherwood Timber’ cube seat

450 x 450 x 450mm

Hardwood

FSC / UKTR timber, treated with clear wood oil

Or similar



SE2

Bailey Streetscene ‘Greengate Seating’ bench and seat

B= 1800 x 410 x 450mm
S= 1800 x 550 x 775mm

50% with backrests
50% with armrests

Hardwood timber slats; PPC metalwork, ‘black’ colour to match adjacent existing metalwork

Or similar



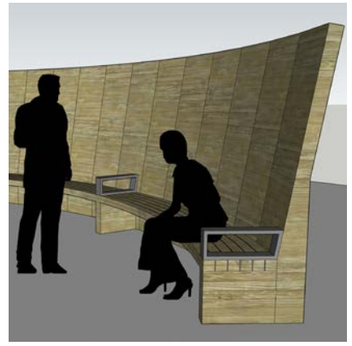
TA

Bailey Streetscene ‘Greengate Seating’ picnic table

1800 x 600 x 745mm

Hardwood timber slats; PPC metalwork, ‘black’ colour to match adjacent existing metalwork

Or similar



SE4

Hardwood timber curved high-backed seat

FSC / UKTR timber, treated with clear wood oil

2.0m high to backrest; 450mm high to seat; 500mm depth to seat

With armrests, PPC, ‘black’ colour to match adjacent existing metalwork

Or similar



RP

Bailey Streetscene ‘Inspira Linear’ raised planter

2800 x 700 x 600mm

PPC, ‘black’ colour to match adjacent existing metalwork

Or similar



LT

Bailey Streetscene ‘Greengate Seating’ litter bin

920/700 x 384mm

Hardwood timber slats; PPC metalwork, ‘black’ colour to match adjacent existing metalwork

Or similar



EF

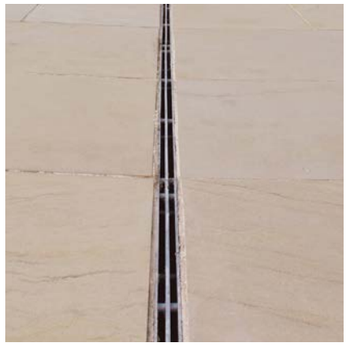
Marshalls ‘Standard Edging’ concrete edge

914 x 150 x 50mm

Flat top

‘Natural’ colour

Or similar



SD

Marshalls ’Drexus Duo’ slot drain

Galvanised steel slot

Or similar



CD

Marshalls ’Birco100’ channel drain

Cast iron heelsure grate

Or similar



EM

Kinley ‘AluExcel’ aluminium edging

75mm height

Flexible

Mill aluminium

Or similar



SC1

Hardwood timber horizontal slatted screen

FSC / UKTR timber, treated with clear wood oil

2.1m high; 94 x 17mm slats, 6mm gap between; 150x x150mm posts

With associated gate, access controls tbc

Or similar



FE1

Lang & Fulton Orsogril ‘Deltawing-70’ Fence

2400mm height

Horizontal louvre

PPC, ‘black’ colour to match adjacent existing metalwork

With associated gates, access controls tbc

Or similar



BS

AlphaRail ‘Brentford Lock’ style flat bar balustrade

1100mm high

PPC, ‘black’ colour to match adjacent existing metalwork

Or similar



FE2

Timber post and 3 metal wire fence

Temporary, to protect hedge during establishment, and to be removed

1m high, 100mm dia. posts

Or similar



HR

AlphaRail, to match ‘Brentford Lock’ style, hand rail

1000mm high

PPC, ‘black’ colour to match adjacent existing metalwork, warm-to-touch finish

Or similar



SC2

Natural Fencing ‘Hazel Hurdle Fencing’

1.8m high x 4.8m long, curved

Supplied with chestnut capping, chestnut posts, and chestnut bracing rails

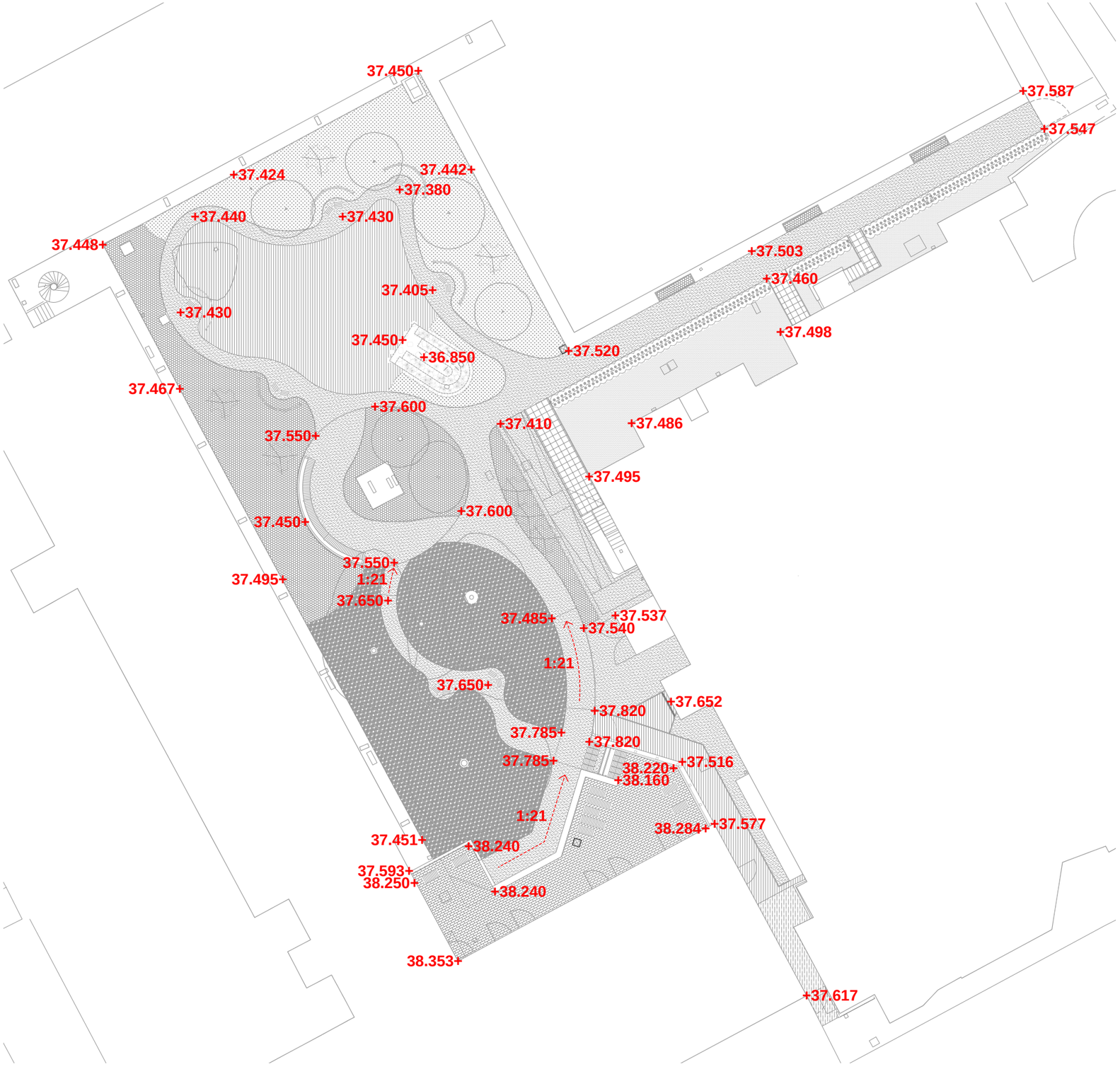
Or similar

Site Levels

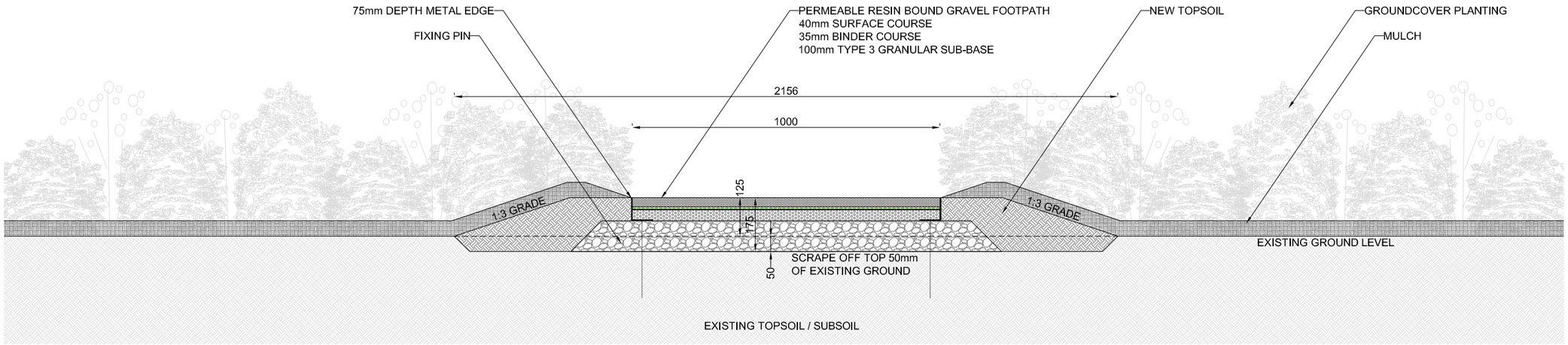
The existing courtyard space can generally be considered as flat, except for a raised terrace area to the south, immediately outside the Ellen Wilkinson building.

The proposed levels strategy aims to broadly retain these existing site levels wherever possible in order to reduce the need to import site fill, and to tie into existing building threshold levels. The only areas where proposed levels will be raised significantly over existing is where new footpath routes are introduced within the RPA's of existing trees and a 'no-dig' construction methodology will be employed. Levels are expected to be c170mm higher in these locations.

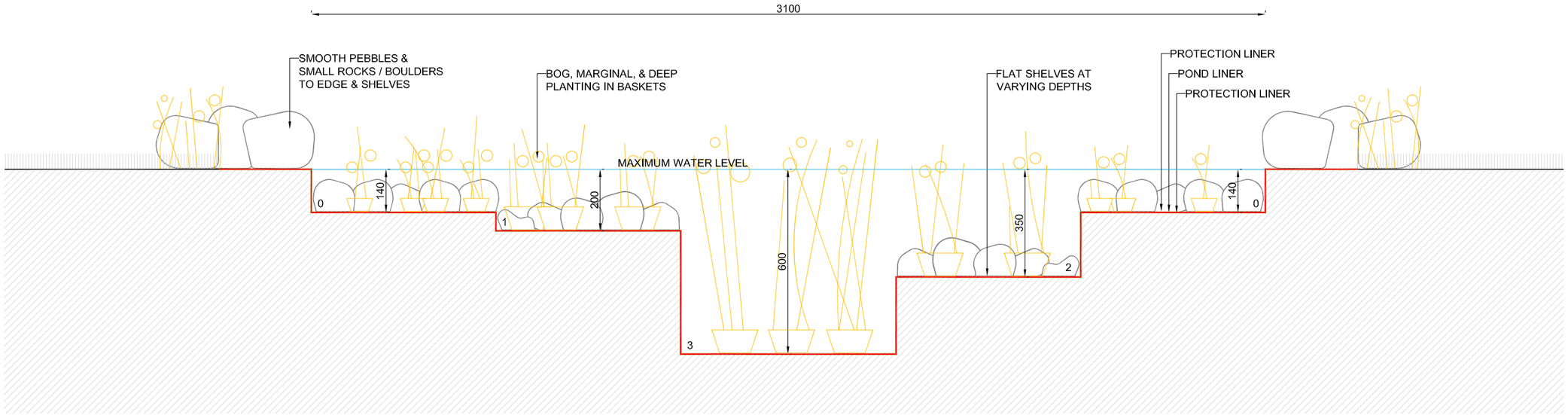
A small area of excavation is required where the new wildlife pond is to be installed, but it is envisaged that this spoil will be distributed around the site.



Typical Details



'No-Dig' Construction Within Existing Tree RPA's



Typical Pond Construction

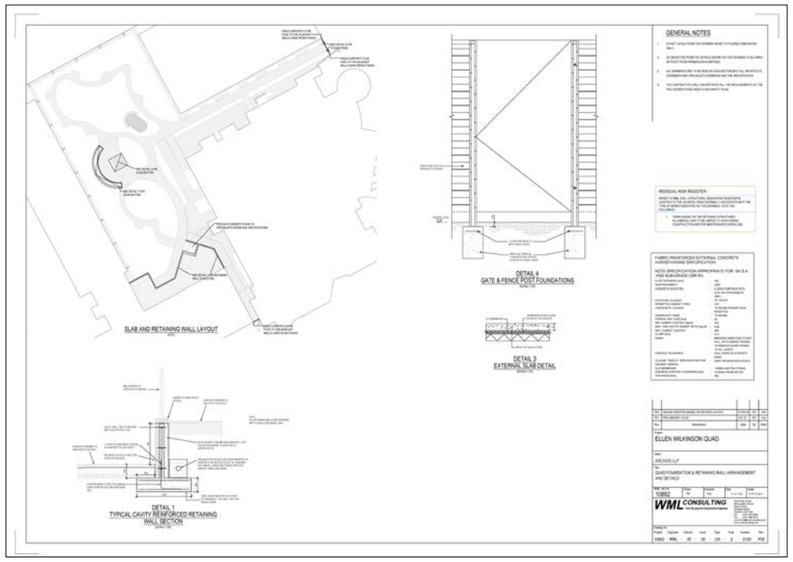
Civils & Structural

'WML Consulting Civil, Structural and Geotechnical Engineers' have been retained to provide relevant advice and design information leading up to the planning application. They have provided a 'Civil and Structural Stage 3 Report' which outlines the requirements of the current landscape proposal (extracts above-right).

With regard to site levels and drainage, the intention is to retain or broadly retain existing site levels wherever possible to ideally negate (or at least minimise) the requirement for the import of site fill. The existing below-ground drainage infrastructure is to be retained where practical and feasible, and augment with minimal new connections to accommodate short runs of new channel and slot drains. The intention is that any areas of hardstanding (both permeable and non-permeable) will drain into adjacent areas of soft landscape where feasible, noting that the percentage of hard-standing has been reduced from c45% of the overall site area down in the existing layout down to c23% of the overall site area in the proposed scheme.

Structurally, there are a number of small design interventions that require foundation and fixing designs. These include a low retaining wall to the edge of the new terrace area, new external furniture, new balustrade and new fence.

Refer to WML Consulting document 'Civil and Structural Stage 3 Report, 10892-WML-XX-ZZ-RP-S-0001, Rev 02' dated July 2023 for full details.





Lighting

'RPS Consulting UK & Ireland' have been retained to provide relevant advice and design information leading up to the planning application. They have provided a 'Lighting Impact Report' and associated external lighting design strategy which outlines their approach and proposals (extracts below-right).

The external lighting scheme has been designed to ensure safe use and circulation around the site, and has therefore been specified to meet the external road lighting category P5 as defined within BS EN 13201 Part 2 2015 to achieve an average maintained illuminance of 3 lux. Furthermore, the layout and fittings have been selected to align with the recommendations contained within the Arbtech Consulting Limited 'Preliminary Ecological Appraisal' report.

Briefly, the external lighting layout has been designed to feel low-key and discrete. The visual intent is to provide a space that is a calm and muted experience but still safe and secure to use. It utilises a combination of low-level LED illuminated bollards to general footpath and circulation routes, and wall-mounted LED lighting to the new terrace space.

Refer to RPS Consulting UK & Ireland document 'Lighting Impact Report, BSM14250, V1.0' dated 27 July 2023 for full details.



REPORT

4 PROPOSALS APPROPRIATE TO THE SITE

4.1 External Lighting Proposals

An external lighting scheme will be provided to give adequate illuminance in and around the Site, and the footpaths around the Site Designed to meet the external road lighting category P5 as defined within BS EN 13201 Part 2 2015 to achieve an average maintained illuminance of 3 lux.

External lighting will generally comprise of discrete low level LED bollard luminaires strategically placed around the Site as indicated on the external lighting Planning drawing. Additionally wall mounted LED lighting shall be provided to the raised break out area.

External illumination shall be to have minimum/zero light pollution.

Automatic photocell (or astronomical timer) and time clock arrangement for the lighting control will be provided with manual override facilities for test purpose and isolation. External lighting will be installed in compliance with ILP guidance note for reduction of obtrusive light to meet the requirements of the ILP Environmental zone E4 as described above.

4.2 External Lighting Impact Mitigation Proposals

As described above the Site External Lighting will be designed to meet the external road lighting category P5 as defined within BS EN 13201 Part 2 2015 to achieve an average maintained illuminance of 3 lux.

The External Lighting will also be installed in compliance with ILP guidance note for reduction of obtrusive light in accordance with the ILP Guidance note GN01/21 to meet the requirements of the ILP Environmental zone E4 as described above.

Additionally the external lighting will be arranged to include curfew hours outside of the following times where all external lighting will be switched off.

5am – 5 pm Monday -Friday

7.30 – 4pm Saturday

7.30am – 12noon Sunday

The controls will have the integral flexibility to be amended to accommodate any changes in terms of operating hours.

All luminaires to be energy efficient LED type and arranged to have zero upward light ratio (UWLR)