

08 Teaching Building

Elevations

The elevations of the teaching buildings take design inspiration from the building's context as well as the proposed use of the rooms. A taller ground allows for generous floor to ceilings in the Dining hall and speciality design and technology classrooms, where specialist equipment can require more headroom. Conceptually the teaching building is formed of two brick wings linked by a subservient visually lightweight circulation link.

As you move up the elevation, smaller window openings to the general use classrooms creates a vertical hierarchy and reflect the hierarchy found in Kneller Hall. The top is capped by a parapet with vertical pattern of inset brickwork inspired by the vertical opening in the Kneller Hall parapet.

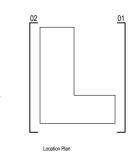
The façades have been articulated as a series of bays with vertical brick piers. On the eastern elevation (which faces onto the formal courtyard) these bays are more uniform and reflect to collegiate nature of the space. The western elevation (which faces out onto Whitton Dene) keeps the same bay principle but alternates these with narrower bays and plays with the rhythm of fenestration.





- Buff Brick strecher bond Buff Brick soldier course
- Curtain Walling solid metal panel, RAL colour T.B.C
- Curtain Walling perforated metal panel, Pattern T.B.C, RAL colour T.B.C

- Curtain walling glazing
 Glazed window, frame RAL colour T.B.C
 Metal Louvres, RAL colour T.B.C
- Rainscreen clad wall, RAL colour T.B.C Glazed Door Door with metal Louvres, RAL colour T.BC
- Pre-cast concrete banding
 Pre-cast concrete coping stone
- Recessed brickwork pattern Rainwater pipe, RAL colour T.B.C
- Solid Door, RAL colour T.B.C





08 Teaching Building **Elevations**

The south elevation as the western elevation, plays with the rhythm. Staircores are articulated with larger panels of brickwork breaking up the window fenestration pattern. Portal windows to the staircase reference similar stair windows on Kneller Hall and contrast with the rectangular form of the windows to classrooms. Full height windows in the dinning hall allow for views out onto the Mellon Yard with this visual connection reinforced by glazed doors which allow pupils to eat al-fresco during the warmer summer months.

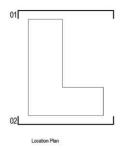
The eastern end of the north elevation follows the collegiate formal facade rhythm of the eastern elevation with clear repeating bays. However, the western end faces away from the formal courtyard and here again the main bay pattern is divided with smaller vertical breaks in brickwork, as with the southern staircase the stair here is articulated through less windows and the use of portal windows.





02.North Elevation

- Buff Brick strecher bond Buff Brick soldier course
- Curtain Walling solid metal panel, RAL colour T.B.C
- Curtain Walling perforated metal panel, Pattern T.B.C, RAL colour T.B.C
- Curtain walling glazing
 Glazed window, frame RAL colour T.B.C
 Metal Louvres, RAL colour T.B.C
- Rainscreen clad wall, RAL colour T.B.C Glazed Door Door with metal Louvres, RAL colour T.BC
- Pre-cast concrete banding
 Pre-cast concrete coping stone
- Recessed brickwork pattern Rainwater pipe, RAL colour T.B.C
- Solid Door, RAL colour T.B.C





08 Teaching Building

Dining Hall/Melon Yard/Listed Wall

In the south-west part of the site is a section of listed wall that had originally enclosed a market garden within the grounds of Kneller Hall. This page explains our proposals to rebuild the wall on another part of the wall line, and why we need to do this.

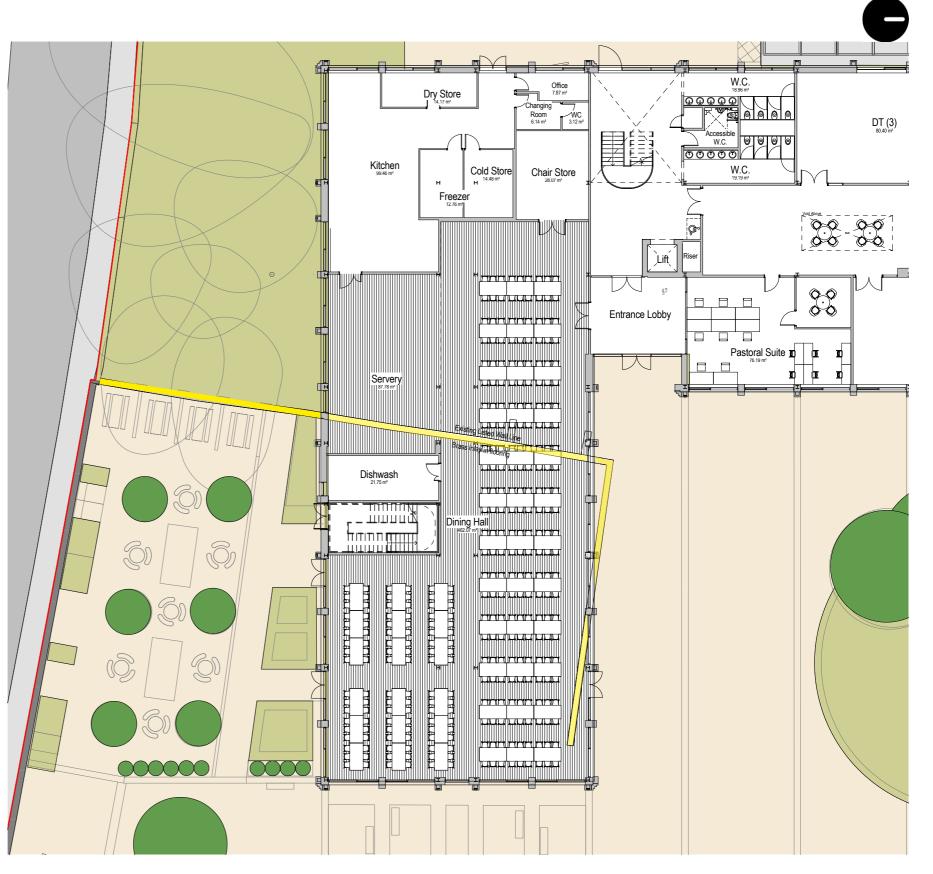
The position and orientation of the teaching block has been defined by the alignment of the School Hall (former band practice hall) and the proximity of the tree group in the south-west corner of the site. It is also constrained by the London Plane Cat A tree to the north, meaning the building is very carefully placed on the site. Because the listed wall is in a different alignment to the School Hall, it is not possible to incorporate this in the external wall of the teaching building. Nor is it possible to retain it within the building as it would bisect the ground floor and make the dining space difficult to use and poor quality. The dining hall is located in this part of the building to place it centrally within the school as a place the school community comes together, and to provide it with a connected external dining area to the south (the Mellon Yard).

The wall historically formed the boundary of the Mellon yard, a market garden area within the grounds of Kneller Hall. Part of the landscape proposal is to create a new external growing space and re-use the historic name of the Mellon Yard. This space will also provide outdoor seating for the dining hall which will allow students to have a greater connection with where their food comes from.

The listed wall will be reinstated along part of its historic line as a boundary to this space, using reclaimed bricks from the remnants of the existing wall. Historic fabric will therefore be retained on site and reused in a different section of the wall, with brick bond and mortar to match the existing. Where the historic wall line runs internally, a memory of the wall will be expressed as a brass inset strip in the floor of the dining hall. This will connect visually with the built external portion and allow an understanding of where the boundary originally ran. The corner of the wall which sits in the new courtyard will also be expressed as a brass strip inset in the paving.

This strategy has been developed with input from the heritage consultant, and is further discussed in the submitted Heritage Statement.

The wall line to be rebuilt is shown in dark yellow and the brass strip is in pale yellow on the adjacent plan.





Introduction

As part of their brief Dukes Education require a sports hall and swimming pool on site to allow them to offer pupils a larger and more varied curriculum than they currently offer at the Radnor House site. Having these facilities on site reduces the schools reliance on third party, off-site facilities and the need to bus pupils to sport lessons and allows them to offer facilities for comunity use

The Sports Centre is located with its main entrance from the formal courtyard at the centre of the site. Level access leads into a double height atrium space where people can wait for activities to start or finish. A central circulation route divides the two uses; pool and sports hall, and avoids a clash of access routes between dry and wet changing. Both the changing rooms for the pool and sports hall are on the same level as the facilities they serve, allowing for easy access between changing and sports area.

The upper level is accessed via a stair in the entrance atrium or by a lift. At this level a viewing gallery allows spectators to watch swimming in the pool below. Space has been allocated for wheelchair spectators.

A fitness studio and activity studio are also located on the first floor; like the facilities below, the associated changing for each space is on the same level, allowing easy access between activity and changing, as well as WCs.



Artists impression of view of main elevation onto the formal courtyard



Concept and Development

Initially in the masterplan the sports hall and swimming pool were proposed as separate buildings, however it became apparent that a combined sports centre would allow for better cohesive sports provision as well as being a more sustainable solution.

Design options looked at the arrangement of the swimming pool and sports hall. A key driver was routing within the building and ensuring good circulation. Due to the large size and height of the two main spaces the massing was also a key consideration.

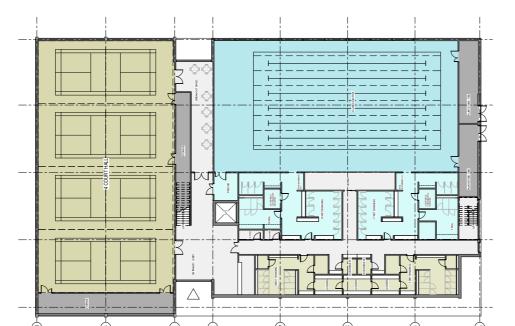
As shown in the adjacent floor plans, different entrance locations were proposed with the aim of providing efficient layouts to reduce the footprint while allowing views and paths through the building and out to the landscape beyond. As the design developed the orientation of the pool was rotated 90 degrees this still allowed views out of the pool over the MOL via large windows, but also gave a clear circulation and visual axis through the centre of the plan. This also rationalised the split of changing provision between wet and dry changing and ensured there was no crossover between the two.



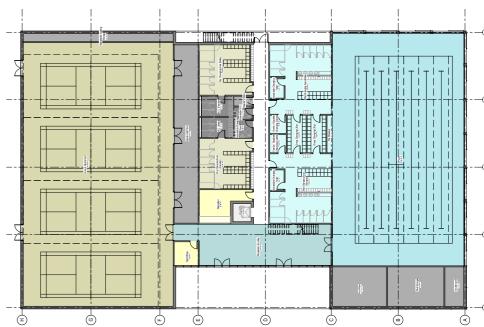
Early option with entrance in south-west corner



 $\label{prop:equation} \textit{Early option with entrance and circulation route in centre}$



Early option with entrance and circulation route between main spaces



 $Developing\ option\ which\ rotates\ swimming\ pool\ providing\ better\ funtionality$



Concept and Development

The elevations of the sports centre have been developed in line with developing layouts. The large volume of the pool hall and sports hall mean they have a large impact on the massing and proportions of the elevations. The design has responded to this challenge by looking at options to break-up the mass through window positions and materiality, using metal cladding to articulate the sports hall.

Elevations shared at Pre-app 3 treated the sports hall and swmming pool in the same way as each other. Feeback was to provide more differntation in the long elevations and that massing and scale needed to be broken down.

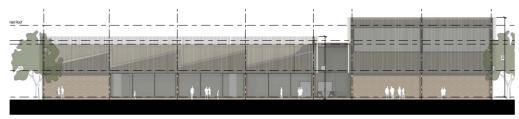
A saw tooth roof was introduced to bring daylight into the hall. The original intention was to express this on the elevations and provide more interest to the roof line. The rooflights are still included but are now concealed behind the cladding so that this industrial typology does not conflict with the look and feel of the rest of the campus which was a concern at the DRP#02.



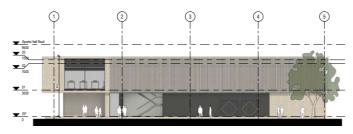
Early design option



Design Iteration from DRP 02



1) East Elevation



Design Iteration from pre-app 03



Design Iteration from DRP 02



Floor Plans

The submitted proposals for the sports hall keeps the general principle of parallel sport hall and swimming pool alignment. However, as shown the swimming pool and wet changing rooms have been rotated. This is discussed in the masterplan section.

This orientation aligns the pool to the school hall to the south, keeping a consistent space and relationship between the two. In rotating the mass it pulls the pool away from the boulevard of trees to the east, respecting the existing landscape and reducing the impact on existing trees.

The angle in the building is articulated in the central circulation. An angled entrance foyer connects the two main sports spaces and allows access up to the first floor. Beyond a wedge shaped corridor leads to the swimming pool and sports hall changing rooms. This widens from a corridor out into a waiting space with views out into the MOL landscape beyond.

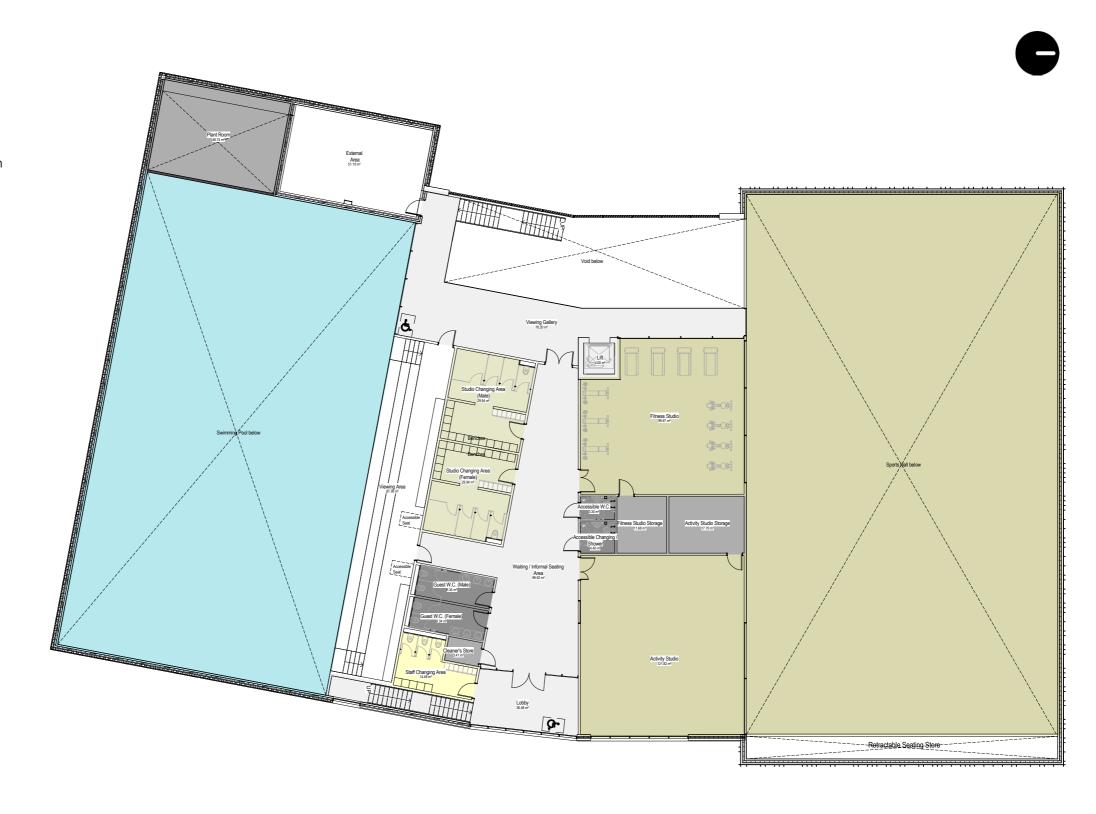






Floor Plans

The first floor follows the principle of the ground floor. The mezzanine offers visitors glimpses into the pool and sports hall below, as we as light into the fitness studio. A similar wedge arrangement leads onto the activity and fitness studios (and associated changing) with elevated views through to the MOL beyond. Also on this level is the spectator viewing gallery for the pool, looking down at high level with stepped seating and a angled roof light above providing defused light to the pool.





Elevations

The elevation approach of the sports centre, like that of the other proposed buildings, is defined by the spaces inside and outside of the building and the relationship between the two. Conceived as two large, two storey spaces with connecting circulating between in plan, the elevations express this without creating a disparate language.

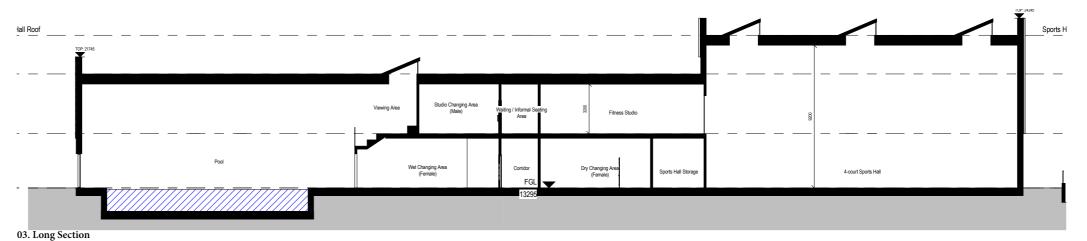
The sports hall has a requirement for a large floor to ceiling height and is the tallest element of the building. The swimming hall and central circulation portion of the building are lower (but still two storey). The sports hall has been expressed as a separate mass using the same material palette as the other new buildings on site with standing seam metal cladding.

Due to the nature of the use of the building there are few areas of glazing at ground level. However, interest is created through climbing plants on the sports hall walls closest to the ecology corridor. Overlooking the formal courtyard a inset bench allows pupils the sit and socialise, activating what could have been a blank elevation. The main entrance is accentuated by double height curtain walling with brise soleil, and framed by a pre-cast concrete element. These architectural elements break the horizontal banding and accentuate the central part of the western elevation, clearly wayfinding the entrance space

On the eastern elevation, the building is predominately brick, with large picture windows used to frame views of the MOL landscape. The swimming pool has been conceived as a simple form with a few linear interventions at ground floor (inset bench and glazing). At first floor no openings break up the form reinforcing the simplicity of the mass form and clarity of the brickwork. The use of a protruding brickwork pattern defines the pool elevations wrapping round from west to east.









Buff Brick - strecher bond Buff Brick - Flemish bond with protruding

Buff Brick - Flemish bond with protruding headers
Curtain Walling solid metal panel,
RAL colour T.B.C
brise soleil metal fins, RAL T.B.C
Curtain walling glazing
Glazed window, frame RAL colour T.B.C
Metal Louves, RAL colour T.B.C
Rainscreen cladding With standing seam,
RAL colour T.B.C
Glazed Door

Glazed Door
Door with metal Louvres, RAL colour T.BC
Pre-cast concrete banding
Pre-cast concrete wall
Pre-cast concrete bench
Solid Door RAL colour T.B.C

09 Sports Centre

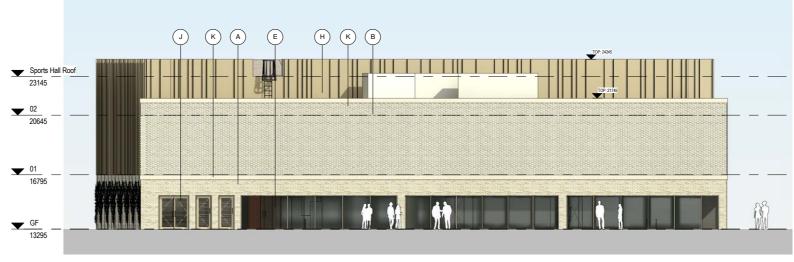
Elevations

The southern elevation continues the elevational principles shown in the west and east. Ground floor windows allow views out, whilst there are no high level windows to generate glare on the pool. Protruding header brickwork adds visual interest at the upper level.

The north elevation of the sports hall has a clear horizontal elevational approach the same brickwork wraps the whole of the ground floor of the building. At upper level metal standing seam cladding with alternating spacing between seams defines the taller mass of the sports hall. Climbing plants will add interest and link the building to the ecology corridor beyond.



03. South Elevation



(H)(A) K M K B Sports Hall Roof 20645

04. North Elevation

10 - School Hall



10 School Hall (former Band Practice Hall) *Introduction*

The former Band Practice Hall is a curtilage listed building dating from the early part of the 20th Century and built as part of the Royal Military School of Music use. It is essentially a single volume building of seven bays with the western most bay divided off for storage. The building is single storey double height with a small part basement and a later poor quality extension housing some WCs which is proposed to be removed.

The initial masterplan for Kneller Hall envisioned this providing drama studio facilities for the school and a multifunctional hall supporting a larger Performing Arts Centre (PAC). In the design development and liaison with Richmond Planning Authority the PAC was omitted from the proposals. The school still had a need for a space to put on performances by the pupils and function as a school hall as identified as required by the Department for Education for a school of this size.

A feasibility into the Band practice hall suggested this building could perform this function with the addition of raked seating to ensure good site lines for the audience and an extension to house the supporting facilities of WCs, changing rooms and MEP plant areas.

Raked seating would be retractable to allow for the fullest flexibility of the space and widest use for the school and allow this to be used for teaching for drama.





10 School Hall (former Band Practice Hall)

Concept and Development/Accessibility

The development of the extension was tested using a number of different roof profiles. We looked at the options of both encompassing the full south elevation and the option of the new roof meeting the building at the central stile of the sash windows. This latter option would not have given sufficient head height and was discounted.

As design developed it became clear more space for plant would be needed than the space the existing building and extension could provide. The west elevation was preferred for a plant enclosure, both to reduce impact on the significance of the listed building and to ensure that external spaces and routes between buildings were not impacted. An exercise was carried out to test whether a single L-shape extension would be preferable but the differing roof heights and need for differing enclosures quickly established that this would not work.

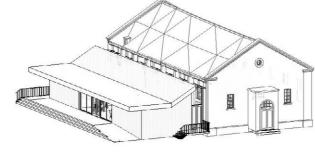
Significant work was undertaken to try to reduce the size of the plant enclosure to the west and make is as subservient as possible to the main building. The width of the enclosure sits within the projecting columns and capitals and do not impact on the decorative detail. The depth is limited to the same as one of the bays. Although the height is lower than the main building it cannot be reduced further without exposing the ducts. The position these enter the building cannot be amended as they need to pass through the roof trusses internally.

Massing Optioneering Images

- 1. Early test of mirroring gable end with the same pitch to the main slope
- 2. Flat roof profile treating the extension in a similar way to the portico to the Guards House. However the head height would be too low
- 3. Continuing the main slope of the roof over a new extension but flattening out to create head height at the eaves
- 4. Looking at an overhanging eaves due to south facing elevations
- 5. Adding a clerestory and refining areas of solid to glass
- 6. Taking the clerestory to follow the roof line. Looking at standing seam metal cladding.
- $7. \ \ Early\ massing\ of\ plant\ enclosure\ with\ extension\ full\ width\ and\ full\ height$
- 8. Massing coordination with internal layout aiming to reduce as much as possible









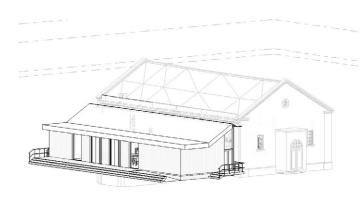






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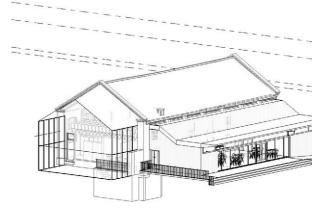


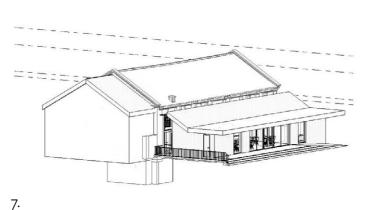


3.



6.





Views from south-west

8.





10 School Hall (former Band Practice Hall)

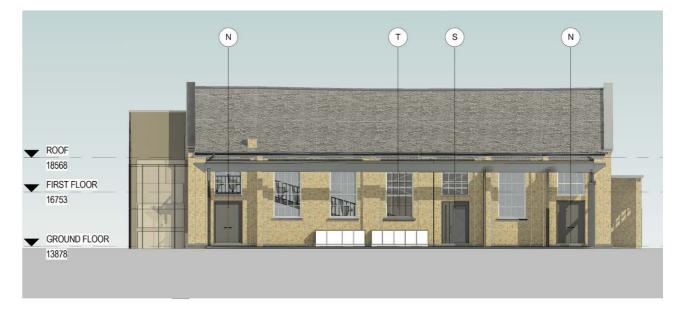
Floor Plans and Accessibility

The main hall can accommodate approximately 270 seats the majority of which are part of the retractable system with a few rows of loose seats at the front where accessible spaces will also be accommodated. When the seating is pushed back this provides the main drama studio space. The stage will be constructed with temporary staging to suit individual productions. The rear bay of the hall will remain as plant space and storage.

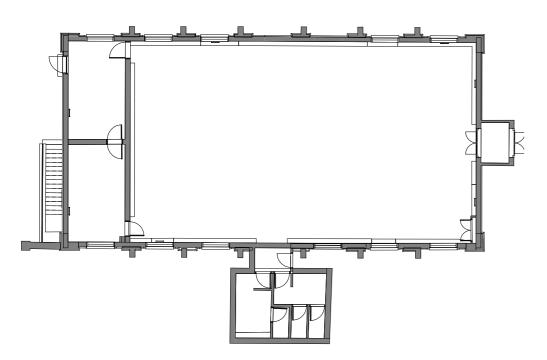
The space above the plant space and storage will be opened up to the main hall to provide fixed seating at the upper level. (See long section)

The single storey extension to the south running almost the entire length of the building would house a second teaching space or break-out space which could double as a foyer when performances are put on. This would also include the new main entrance and draught lobby to the building and changing rooms and WCs.

Initially the topography suggested that a ramp would be needed however this is not the case and step free access can be provided to the south without this.



Proposed Internal sectional elevation of south side NTS









10 School Hall (former Band Practice Hall) Elevations

The existing building is a yellow/buff London stock brick with red brick rubbed arches over the windows. Windows are large timber sash windows of 12 over 12 panes. Two windows on the north elevation and two on the south elevation have been altered in the past to remove the bottom sash and infill with brick.

Structural issues historically have resulted in steel buttresses encased in concrete being added on the long elevations at each bay. The steels are tied internally with steel rods running under (and slightly to the side of) the timber trusses

The north elevation is unaltered except for the addition of a fire exit door under one of the altered windows.

The south elevation is the location of the new single storey extension. This provides the new main entrance to the School Hall which is fully accessible. The elevation is glazed floor to ceiling to the break-out / foyer space with doors to open out onto the new landscaped courtyard in good weather. The private spaces of changing rooms and WCs have solid standing seam metal cladding that coordinates with the other new buildings on the site.

The roof of the extension follows the same slope as the main roof; ensuring the space within the extension fully encompasses the exiting south elevation, allowing the windows to face onto the new space and not be bisected by a roof. The extension is separated and articulated from the main building by a glazed slot bringing light down into the back of the new space. At the mid-point of the new slope the roof becomes level, ensuring generous head height to the eaves line. A clerestory is included to bring high level light into private spaces such as changing rooms and to create a lightness to the roof.

The roof slope articulation is visible at both east and west ends. The east end retains its original entrance porch which enters the building at the stage end. Level and to be able to be 'threaded' though the existing roof trusses. If these ducts ran internally they would require the removal

of a large number of seats making the capacity of the school hall insufficient.

The pattern to be cut into the metal panels will coordinate with the pattern cut into the metal panels at the ground floor of the teaching building. The pattern itself it yet to be determined and the images on the CGIs and elevations are indicative only.

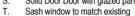


Proposed South Elevation NTS



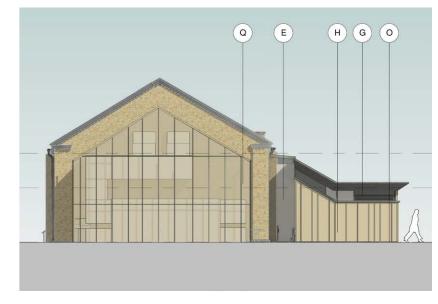
Proposed North Elevation NTS

- Buff Brick strecher bond Buff Brick - Flemish bond with protruding
- Curtain Walling solid metal panel. RAL colour T.B.C.
- brise soleil metal fins, RAL T.B.C Curtain walling glazing
- Glazed window, frame RAL colour T.B.C
- Metal Louvres, RAL colour T.B.C
- Rainscreen cladding With standing seam, RAL colour T.B.C
- Glazed Door
- Door with metal Louvres, RAL colour T.BC
- Pre-cast concrete banding
- Pre-cast concrete wall
- Pre-cast concrete bench Solid Door RAL colour T.B.C
- Dark Grey Brick Plinth
- Dark grey solid surface
- Perforated metal screen pattern T.B.C
- Rain water drainage
- Solid Door Door with glazed panel colour T.B.C





Proposed East Elevation NTS



Proposed West Elevation NTS

11 - Guards House



11 Guards House

Concept and Development/Accessibility

The former Guards House is a curtilage listed building dating from the 19th Century.

The building has two distinct and separate parts which do not connect at ground floor. At Least part of north wing of building was originally stables and expanded in the early part of the 19th Century. This rear wing is currently divided into a number of smaller spaces (likely offices) with separate external entrances.

The south section operated as the main security entrance point for the site to the south of the building and has a portico which was added in the mid 20th Century.

The guards house stands at the existing entrance to the site off the narrow Kneller Road where pedestrians and some cyclists will enter the school site on the new entrance forecourt. The main entrance to Kneller and the school is located on this forecourt as well as the bulk of the cycle parking stands. The site will have a number of security personnel and this location is ideal to retain its security function to provide them with a base and a location for CCTV monitors. This part will also house the school nurses office and the sick bay.

The rear of the building is proposed to provide the school music department. This separates music from other quieter functions and creates a performance area on the site opposite the new school hall.

The first floor has had openings introduced in the separating wall at some point in the past and so the whole of the first floor is part of the new music department.

The existing building is quite small but has numerous level changes at both ground and first floor due to its piecemeal development history. To make the building fully accessible would be disproportionate to its size and very intrusive on the fabric and significance. A different approach has been taken to ensure accessibility. The western part of the north wing has step free access from the north informal courtyard and is where the new main music entrance is located. This provides access to a music classroom, a practice room and an accessible WC. This accessible area is hatched on the plan below.





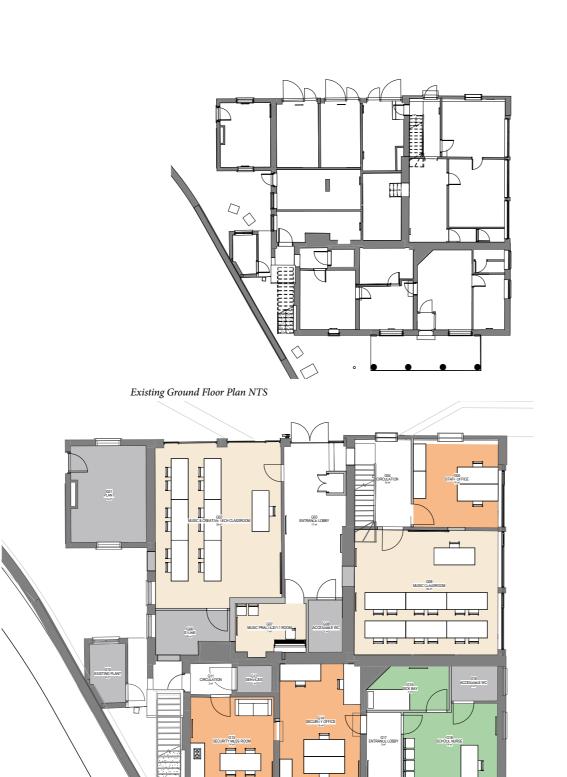
11 Guards House

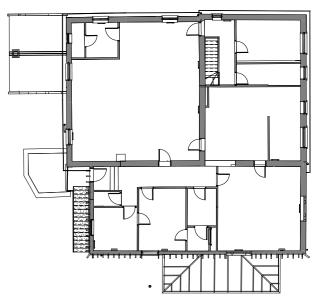
Floor Plans

The floor plans work with existing masonry partitions and lightweight partitions where these work, but rationalises the layout which had become very convoluted especially on the first floor.

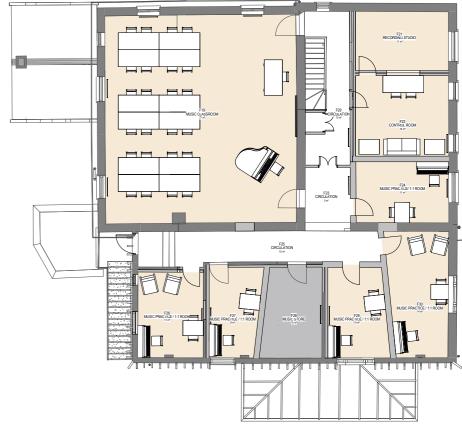
Large classroom spaces are created where large spaces already exist and smaller music practice rooms are located along the south wing first floor. These will have additional wall linings to reduce noise breakout (but not to the extent of making them 'soundproof') and new walls are angled to aid acoustics within the space and reduce reverberation.

The first floor spaces go partly into the roof void with skeiling parts (a straight sloped part of a ceiling) to the perimater of the building. The main classrooom on the first floor retains its oringal proportions and the skeiling is seen as a whole. The south part of the first floor will remain as sub-dvided space to provide music practice rooms but will rationalise the layout. The skeiling will remain within each room.





Existing First Floor Plan NTS



Proposed First Floor Plan NTS

Proposed Ground Floor Plan NTS

11 Guards House

Elevations

Generally alterations to elevations are restricted to removing redundant and intrusive services (including cabling) and refurbishing existing windows.

The south elevation has the addition of a new ramp to ensure step free access into the south wing of the building. This sits within the footprint of the portico to the south and stops before the end of the building to the east.

The east elevation and north elevation both have large structural bay openings in-filled with later external wall fabric. These are likely to have been the original stable openings. Our proposals are to replace the 'infill' with a contemporary predominantly glazed element in dark grey framing onto these two classroom spaces. These in-fills will also accommodate the louvres to the MVHR units (mechanical ventilation heat recovery) which provide fresh air into the building and recover the heat from the space.

The west elevation is predominantly unaltered except for a new louvred section in the gable to the single storey store room.



An image of the louvres which sit in front of the MVHR units at the top of the window

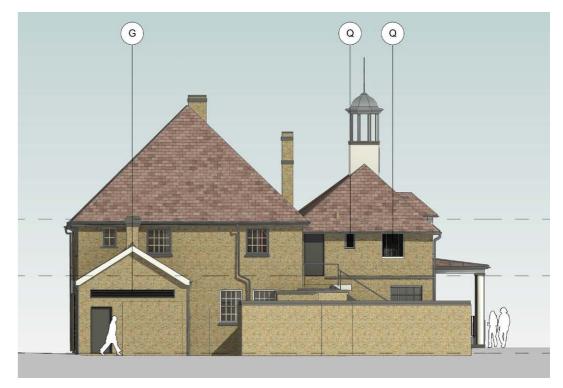


Proposed South Elevation



Proposed North Elevation





Proposed West Elevation

11 - Sports Pavilion



11 Sports Pavilion

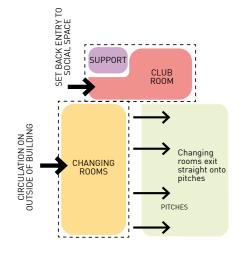
Concept and Development/Accessibility

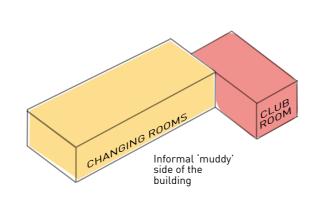
The sports pavilion is a one storey new building proposed within the Metropolitan Open Land, overlooking the proposed sports pitches. The requirements for a sports pavilion is set out in the Sports England guidance, alongside the ECB (England Cricket Board) as well as input from the school on their needs. More information on the future use of the proposed sports facilities, both by the school and the community, are set out in the Kneller Hall Sports Provision document submitted within this planning application.

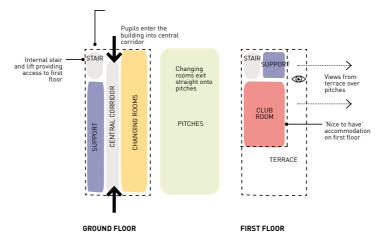
The development of the pavilion was tested using a number of massing options. We looked at separating the club room and changing facilities to allow the club room to protrude out and have triple aspect views or a two storey option, allowing the club room to spill out onto a roof terrace. Building within the MOL meant both restrictions in height and footprint whilst still requiring to comply with Sports England guidance to be suitable for community use.

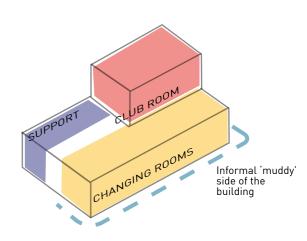
As the design developed, it was clear a one storey option within a similar footprint to the existing building on the site was the best route forward, with the club room space central to oversee all 3 pitches.











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11 Sports Pavilion

Floor Plans

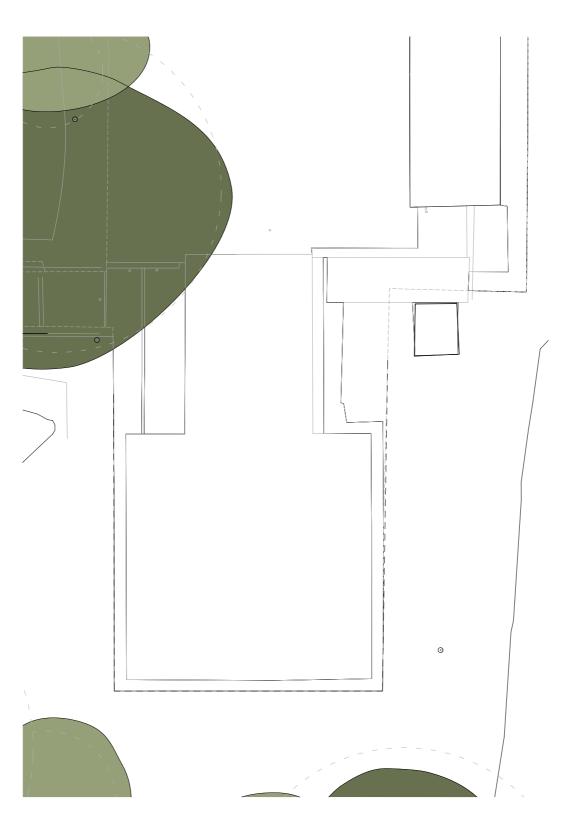
Engagement with sports clubs, has confirmed that the facilities provided in the sports pavilion, including the club room, are much needed. The club room can help clubs to generate revenue, to support the running of the clubs, from family and friends watching matches. It also allows the clubs to host competitive matches.

The location of the sports pavilion is proposed within the same location of a selection of buildings existing within the MOL which are of low quality and not fit for purpose.

The proposed plan is rectangular in shape, with 4 changing rooms and a central clubroom. To accommodate the requirements set out in the Sports England documents, the footprint is slightly longer and thinner than the existing building, situated clear of the root protection area of the nearby category A tree, and the basketball pitch on the hard surface.

Each changing room has a separate external entrance with an entrance lobby. This arrangement allows for direct access to the pitches an reduces mud being brought into the main clubhouse. Accessed off of each entrance lobby is a WC which serves the adjacent changing room, after school hours these toilets can be used by sports clubs which have hired the sports pitches but not the clubhouse. The two pitch facing changing rooms are designed to ECB guidance and will be used in summer as the cricket team changing rooms. These are larger to accommodate the bigger kit bags needed for cricket. Both changing rooms have slot windows within their lobby to allow players to look out and watch the progress of the cricket match whilst still in the changing room. Two gender neutral umpire changing rooms and an accessible changing room are also included in the meeting the requirements set out by the ECB for a cricket pavilion but also providing staff changing facilities when not hosting competitive cricket matches.

Externally, recessed benches provide sheltered seating for players and spectators to watch the games taking place on the pitches.

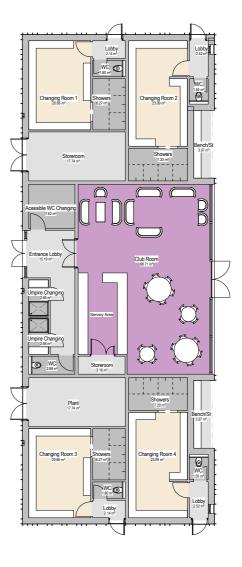


Footprint of Existing Building to be demolished

BUILDING AREA SCHEDULE

	Existing Building to be Demolished	Proposed Pavilion
GIA (m²)	281.4	308.5
Footprint (m²)	312.2	351.5
Volume (m³)	1534	1467
Height	3.2m-5.5m	3.8-4.6m

*GIA for existing buildings assumption calculated 90% GEA



Footprint of Proposed Building



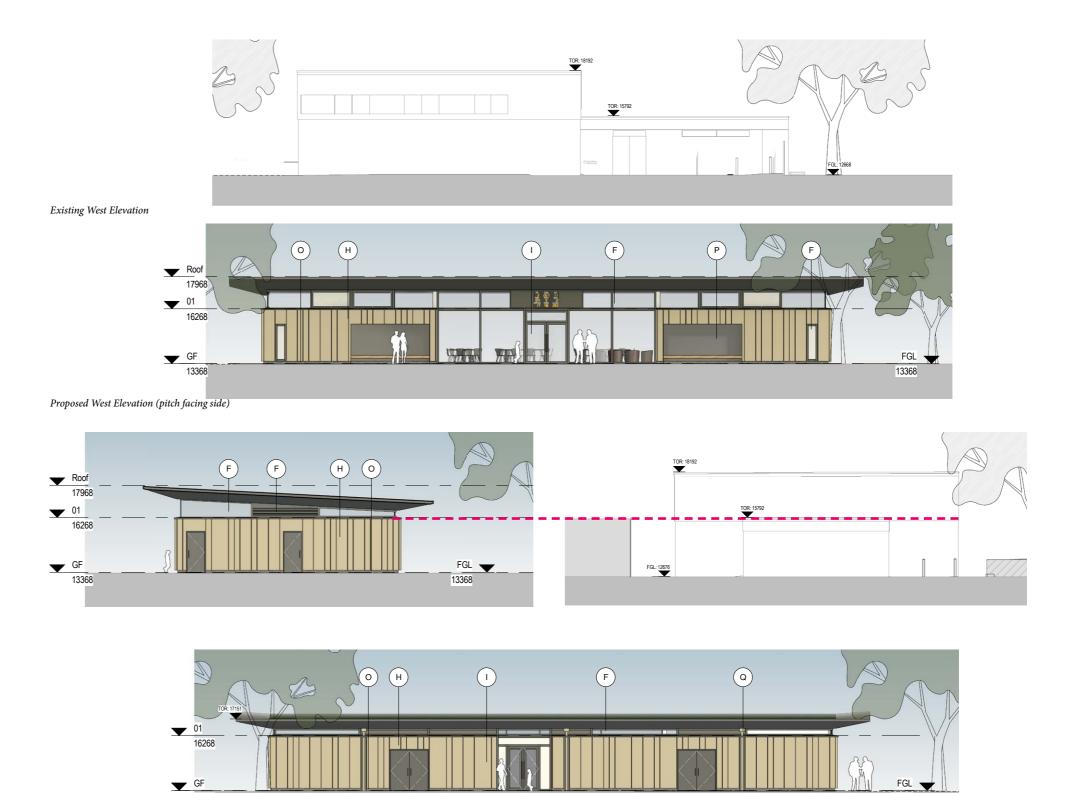
11 Sports Pavilion

Elevations

The central clubhouse is designed to provide a space for spectators and is an essential part of a pavilion as per Sports England guidance. Full height windows allow for views out onto the sports pitches, for spectators and players which is a key requirement for the design. The floorplan of the proposed pavilion consolidates the provision of the club room into a single space and looks to reduce the size as far as possible, so that it is usable and meets users needs, without being over sized, given the location in the MOL.

The proposal of the new sports pavilion sits within the existing trees and lower than the original building on the site. The building has a solid metal clad base, a clerestory below the roof and a sloped green roof.

The original building consisted of a large double volume space, and a smaller single storey element to the north. The glass band which separates the solid metal base is the same height of the original single storey element as indicated by the dashed pink line. The glass clerestory continues around the building and lightens the roof structure on top. The eaves line projects to provide shading and tapers to a narrow point to lighten the appearance of the roof. The clerestory incorporates high level windows to the changing rooms to let in natural light and a score board to the pitch side.



Proposed East Elevation

12 - Energy Centre & Grounds Maintenance

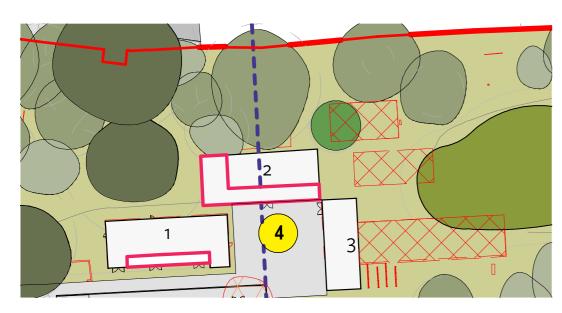


12 Energy Centre and Grounds Maintenance *Floor Plans*

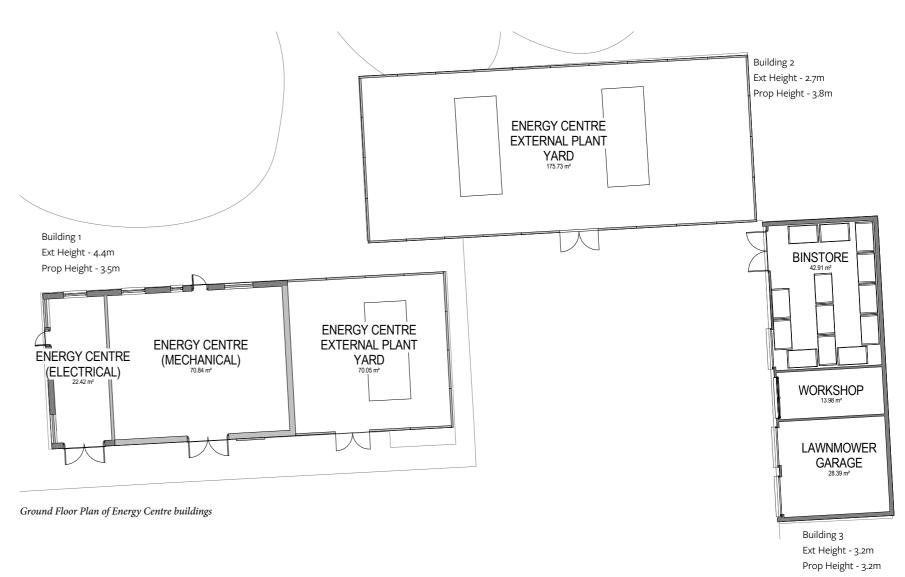
The Energy Centre is an integral part of the sustainability strategy for the whole site. It houses the machinery and plant for Air Source Heat Pumps and Ground Source Heat Pumps which provide highly efficient heating and hot water to the whole range of buildings on site.

The buildings forming the energy centre and grounds maintenance are repurposed existing garages and storage buildings to the north of the site. They have existing vehicular access which will lead to the proposed servicing entrance from Whitton Dene which will be needed for day to day servicing. The location also has good access to the sports pitches for mowing. Other accessible locations on the site would impact on the setting of the listed buildings and were discounted.

In order to house the plant equipment necessary the footprint of the two energy centre buildings are slighltly increased; however the total footprint in this area of the site is reduced as the other buildings in this area will be removed.



Excerpt from Site plan showing buildings to be demolished in red hatch and extensions in solid pick outline.



BUILDING SCHEDULE FLOOR AREA GIA (SQM)

	Existing GIA Total	Existing GIA inside MOL	Demolition GIA	New Build GIA Total	New Build GIA inside MOL	Total GIA Total	Total GIA inside MOL
Building 1	138.4	0	0	24.6	0	163.0	0
Building 2	88.2	57.5	0	75.8	25.6	164.0	82.6
Building 3	259.4	259.4	172.3	0	0	87.1	87.2
Total	486.0	316.9	172.3	100.4	25.6	141.1	169.8

*GIA for existing buildings assumption calculated 90% GEA

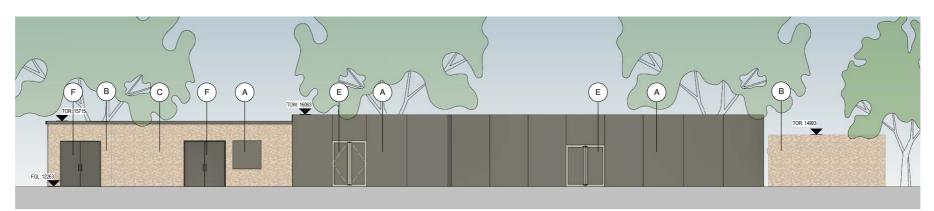


12 Energy Centre and Grounds Maintenance Elevations

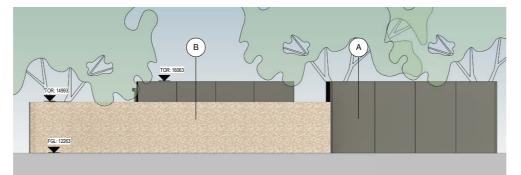
To house the air source heat pumps (ASHP's), air flow is required so part of the buildings will be open to the elements. To visually screen the ASHPs a perforated metal panel screen is proposed around them.



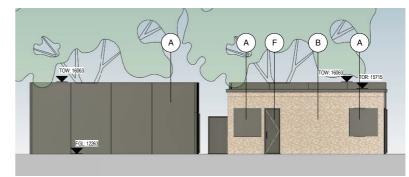




Proposed South Elevations



Proposed East Elevations



Proposed West Elevations

- Laser etched perforated metal panel, RAL colour T.B.C Existing External Brick Wall Proposed External Brick Wall to

- D. Glazed window, frame RAL colour T.B.C

 E. Laser etched metal Door, RAL colour T.BC

 F. Solid Door RAL colour T.B.C

13 - Forest School Shelter