



Bromsgrove
District Council
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Bromsgrove Sport & Leisure Centre

Sports Hall Options Appraisal

April 2018

Programme Management



Cost Management



Architect



Civil & Structural Engineering



MEP Engineering



Leisure Consultancy



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The image features a large, dark grey arrow pointing to the right, which serves as a background for the text. The arrow is set against a photograph of a modern building with a facade of light-colored panels and a prominent section of multi-colored glass windows in shades of yellow, green, blue, and red. In the foreground, there are some people walking on a paved area near a building entrance, and some greenery. The sky is blue with light clouds.

1. Introduction

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1 Introduction and background

The Council requested that Mace complete an options appraisal for the addition of a 4 court Sports Hall to compliment the facilities within the recently completed Bromsgrove Sport & Leisure Centre (BSLC).

Currently the new BSLC comprised of a 25m pool, learner pool, spa, fitness suite & studio space. By adding a Sports Hall this facility will provide a publically accessible sports hall space to the local community which can be utilised by the local's sports clubs of Bromsgrove, further enhancing the facilities that the council & Everyone Active have to offer.

Whilst BSLC has recently opened it was initially planned to provide a Sports Hall space in the adjoining school grounds through the use of a security gate. This agreement would have led to a joint use approach between the school, BAMFM and Everyone Active, with the leisure centre being able to access the space at evening and weekends (there is no holiday agreement in place). However due to change in the access agreement and the availability of the activities spaces at the school site, the Council has requested that further construction based options are explored to provide consistent access to a sports hall on site.

The purpose of this report is to provide a RIBA 0 level options appraisal of the concepts available to the council for providing a sports hall facility and to review the design, cost and programme implications of each of these. Mace have coordinated with architects, Roberts Limbricks; who were also the Architects for the main BSLC building from feasibility. Modular specials, Elliot's; who Mace have engaged with to understand the options for modular and pre-fabrication of a new build sports hall. Civil & structural consultants, Curtins; also previously

engineers for the new BSLC. M&E consultants, DDA; also consultants of the main BSLC building. These consultants have been engaged with to provide a robust report that covers all key areas of consideration. This report outlines the following considerations:

- Sport England Requirements
- Options to Create USP and Added Value aspects
- Development of an affordable scheme
- Outline project Programmes
- Provide next steps

Do date Sport England have funded £1.5m towards the development of sporting facilities in Bromsgrove. The introduction of a new sports facility will include consultation with Sport England as a key stakeholder in the project.

The Seven options available to the council will look to utilise the rear area of the currently proposed car park & three of the options reviewed will provide a new build structure, which differ in layout & buildability. The final option is to renovate the existing sports hall by demolishing the remainder of the Dolphin Centre.

Further to the Seven options included, this report also covers the potential for an interim solution in the existing sports hall to provide Everyone Active with a space that is fit for purpose until a permanent solution is provided.

This report summaries the conversations and findings, concluding by outlining the key next steps moving forward, for discussion with Bromsgrove District Council.

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The background of the slide features a photograph of an indoor swimming pool. The pool is partially visible in the lower right, with a curved edge and a light blue interior. A silver metal handrail is positioned near the pool's edge. The surrounding area is tiled with light-colored square tiles. The ceiling has recessed lighting. A large, semi-transparent yellow arrow points from the left towards the right, framing the text. The overall background is a dark grey color.

2. Design Overview

2 Design Overview

The existing site has been reviewed by the design team and they have provided seven options which can be located at one of two sites across the facility. These are to either utilise the existing sports hall or locate a new sports hall facility adjacent to the new BSLC.

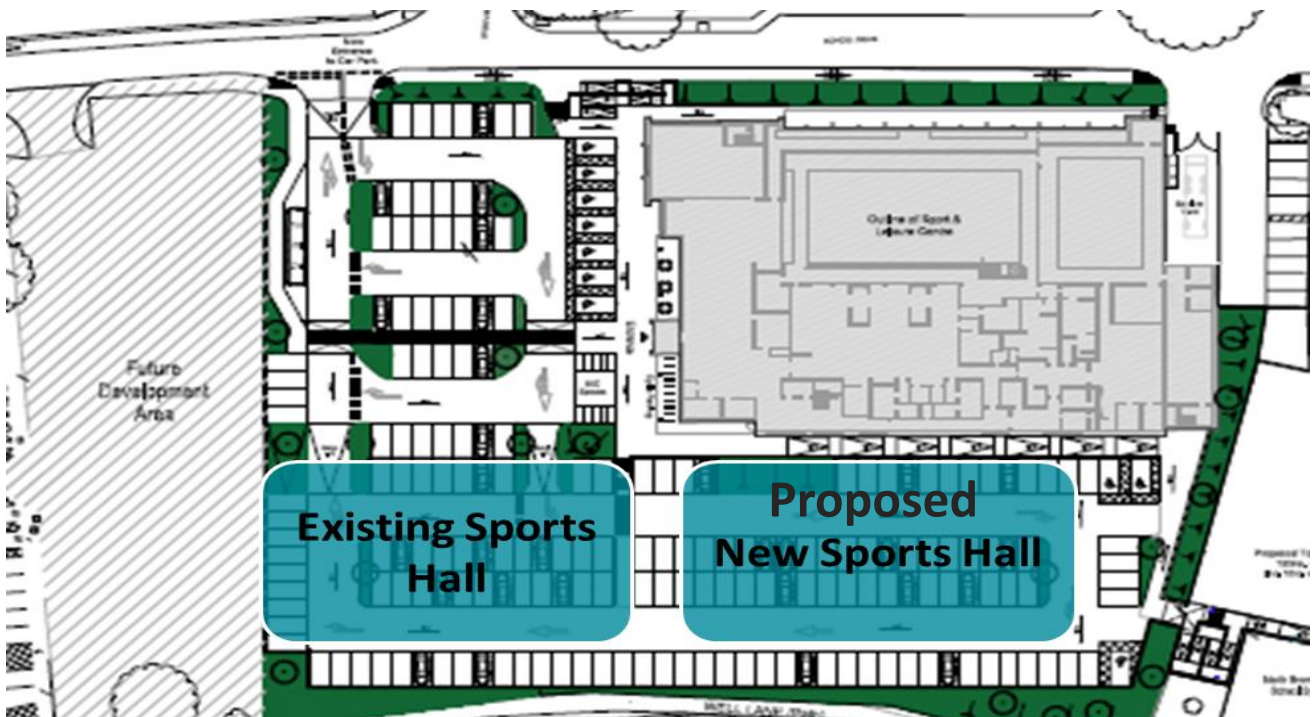
The proposed new location will provide an area that matches in with the New Leisure Centre and through sensitive architectural design, could provide a scheme that flows between the two buildings. There are a number of advantages and limitations to each of the schemes and these can be viewed in a comparison table at the end of section 2.

The new build options have been based on the guidance within Sport England's affordable sports hall model - option 1b (Appendix F) to ensure a cost effective & suitable design is proposed in line with the Sport England requirements and funding provided for the Leisure Centre. Should a design be progressed to RIBA Stage 1 for a full feasibility study, it would be from this point that Sport England would be formally engaged with the project and the design and considerations would be formally presented to them for comment.

The original scheme did not account for either the existing sports hall to be retained for a new sports hall and therefore, any of the chosen designs will lead to a change in the design of parking available for the centre. However, a new layout will be suggested depending on the scheme which is taken forward.

Should the scheme progress with a new build option, it will provide a more simplistic car park design whereas utilising the existing sports hall would lead to a split car park. It should be noted that either option will provide the required level of car parking, as designed within the original scheme.

A breakdown of the 7 design options that have been reviewed as part of the options appraisal, has been included overleaf, before the report then details each of the designs individually. For further cost information on each of the options please see section 3.



Option 1 - Refurbishment of the existing Dolphin Centre sports hall. This includes allowances for the reconfiguration of a new car park compromising 190 car parking spaces and 14 disabled spaces. There is a new ramp and stair access including landscaping, partial demolition and retaining wall.

Option 1a - Refurbishment of the existing Dolphin Centre sports hall & addition of a sport play/ multi-purpose space. This includes allowances for the reconfiguration of a new car park compromising 190 car parking spaces and 14 disabled spaces. There is a new ramp and stair access including landscaping, partial demolition and retaining wall.

Option 2 - New build, sports hall which would be circa 76 m² larger and would include a pavilion and equipment store. Externally and as per option 1 there would be an inclusion of 190 car parking spaces and 14 disabled spaces including the above external elements but would include a full demolition of the site.

Option 3 - This is similar to option 2 but has a different external layout located next to the new

leisure Centre. This option includes a new glass canopy which is more expensive and includes less car parking with 183 spaces and 17 disabled spaces.

Option 4 – This option is as per Elliot's quotation for a modular new build and includes OHP and prelims. A full breakdown of scope can be found in appendix D.

Option 4a – This option is based on Elliot's quote for option 4 for a modular new build and includes OHP and prelims. This option includes the addition of the multi-purpose/soft play space to the front of the building.

Option 5 – New build, sports hall which would include a pavilion and equipment store. Externally and as per option 1 there would be an inclusion of 190 car parking spaces and 14 disabled spaces including the above external elements but would include a full demolition of the site. This is a variation of option 2 and includes a multiuse space above the changing facilities and would be a traditional, new build solution.

| Option | Construction | Construction | GIFA m ² |
|-----------|--|-------------------------|---------------------|
| Option 1 | Existing Sports Hall | Refurbishment | 934 |
| Option 1a | Existing Sports Hall, Changing Pavilion & Soft Play | Refurbishment | 1203 |
| Option 2 | New Sports Hall and Changing Pavilion | New Build | 997 |
| Option 3 | New Sports Hall and Changing Pavilion | New Build | 915 |
| Option 4 | Modular New Sports Hall and Changing Pavilion | Prefabrication/ Modular | 1000 |
| Option 4a | Modular New Sports Hall, Changing Pavilion & Soft Play | Prefabrication/ Modular | 1269 |
| Option 5 | New Sports Hall, Changing Pavilion & Soft Play | New Build | 1274 |

DDA have provided initial comments on the work that may be required for each of the options. Once the project proceeds to RIBA Stage 1, DDA will then be able to undertake further surveys of the remaining capacity for M&E systems off the new leisure centre, as the extent of this currently unknown. Based on DDA's leisure experience it has been assumed that all of the seven options discussed may require new supplies. Whilst this can be designed in from the start for any of the new sports halls, careful consideration would be required when designing any scheme based on the existing sports hall.

Utility considerations:

At this stage it is assumed that new utility connections would be required for all of the sports hall options. The electrical supply would be a new connection from Western Power, derived from the substation serving the existing leisure Centre. This would likely be a joint on to the existing supply cable previously diverted to allow construction of the new leisure Centre.

The gas supply would be a modification of the gas supply to the existing leisure Centre. The gas meter is in an external housing located in the car park where the new changing facilities would be on the options below.

The existing water main terminates at a valve box to the rear of the existing leisure Centre. This would be modified by the contractor as it is a private main and routed to the new plant area.

BT / Data would need to be assessed. A duct connection could be installed to the new leisure Centre allowing the sports hall to operate as an extension of the leisure center's internal network. Alternatively a new BT ducted connection could be made from the BT network on School Drive if an independent telephone/data network is required.

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This option retains the existing sports hall and adds a changing facility extension to the side and would use the existing equipment store. It is envisaged that a second reception would be required to ensure that the sports hall is secure and to ensure that it is revenue protected due to the distance between the sports hall and the main reception.

The use of the existing sports hall provides the opportunity to design the area as a destination, clearly showing the differing facilities on offer and could provide an enticing spectacle for potential customers. However, this is offset by the design of the car park due to the natural split which is caused by the existing building. To further enhance the existing sports hall, it has been suggested that it would be re-clad which would provide further synergies between the two facilities creating the sense of a leisure destination.

Should this option be progressed, it will require careful consideration from the design team and specifically the structural engineers to detail how the remainder of the Dolphin Centre is demolished whilst safely retaining the Sports Hall. At this point no structural survey has been undertaken and it is anticipated that the structure would require underpinning on the north side of the hall. This hasn't been allowed for at the stage due to the unknowns. Should this option proceed to RIBA Stage 1 and beyond, the design team would undertake a full array of surveys required to design the existing sports hall in the required detail.

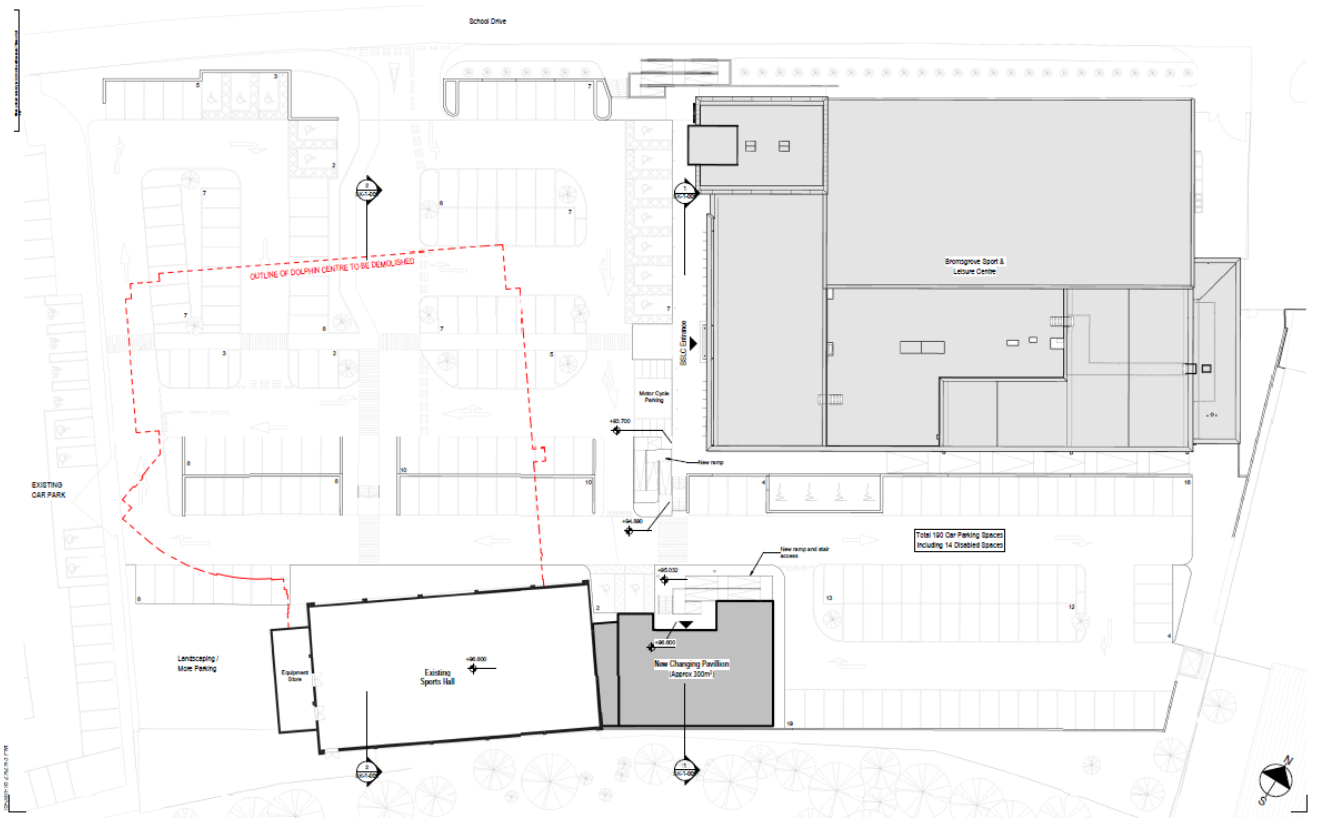
It is currently proposed to strip out and replace the existing services due to the age of the systems and therefore, reaching the end of their useful life and suitability against current Sport England recommendations and requirements. For example whilst the current SON lighting in the sports hall fit for purpose, compared to new technologies, it is inefficient and does not achieve the lighting levels and glare limits recommended for Badminton by Sport England's latest recommendations.

It would be recommend the installation of new high level natural ventilation turrets, gas-fired radiant heating and low energy LED lighting. A dedicated space for M&E plant and incoming utility meters would be required. The current meter room proposed on the architectural layout does not take into account the detailed requirements. Therefore it could be insufficient and require expansion. At this stage it would be estimated that an area in the order of 20m² would be sufficient.

| Advantages | Limitations |
|--|---|
| Utilisation of the existing hall , therefore all structure already in place, negates need for retaining wall extension along Well Lane | Equipment store: Due to the design utilizing the existing store, it would be a reduced size compared to a new build solution and is not in the optimal position for operations. |
| Opportunity to re-clad and create new Changing facility linked to hall | Access: The disjoint from the main leisure Centre means that users would face a convoluted journey through the car park to the sports hall and would require a new set of steps & ramp. |
| Ease of access to the Sub Station to the rear of the site | Café access: Users are less likely to use the existing facilities if they do not have to use the main reception to book in |
| Highly visible frontage perpendicular to new BSLC facility | |



Option 1 – Massing model (extract from Appendix A)



Option 1 – Site Plan (extract from Appendix A)

This option retains the existing sports hall and adds a changing facility & soft play extension to the side and would use the existing equipment store. It is envisaged that a second reception would be required to ensure that the sports hall is secure and to ensure that it is revenue protected due to the distance between the sports hall and the main reception.

The addition of a soft play space would provide the opportunity for a split level reception & entrance leading to a low level changing facility before going up to the sports Hall and Soft Play space. This would also include a reduced level access from the car park, which would help mitigate the limitation of access from option 1.

The concept of providing a low level changing facility provides a different perspective compared to option 1 and additional space has been created for the provision of a soft play space. Whilst this design increased the capital cost of option 1, there are additional revenue benefits for including such facilities. The detail to adding such facilities can be found in section 4, where the business case for the scheme is discussed.

As per option 1, should this option be progressed, it will require careful consideration from the design team and specifically the structural engineers to detail how the remainder of the Dolphin Centre is demolished whilst safely retaining the Sports Hall.

At this point no structural survey has been undertaken and it is anticipated that the structure would require under-pinning on the north side of the hall. This hasn't been allowed for at this stage due to the unknowns. Should this option proceed then Curtins would undertake initial surveys at RIBA Stage 1 before undertaking further intrusive surveys at RIBA Stage 2 & 3

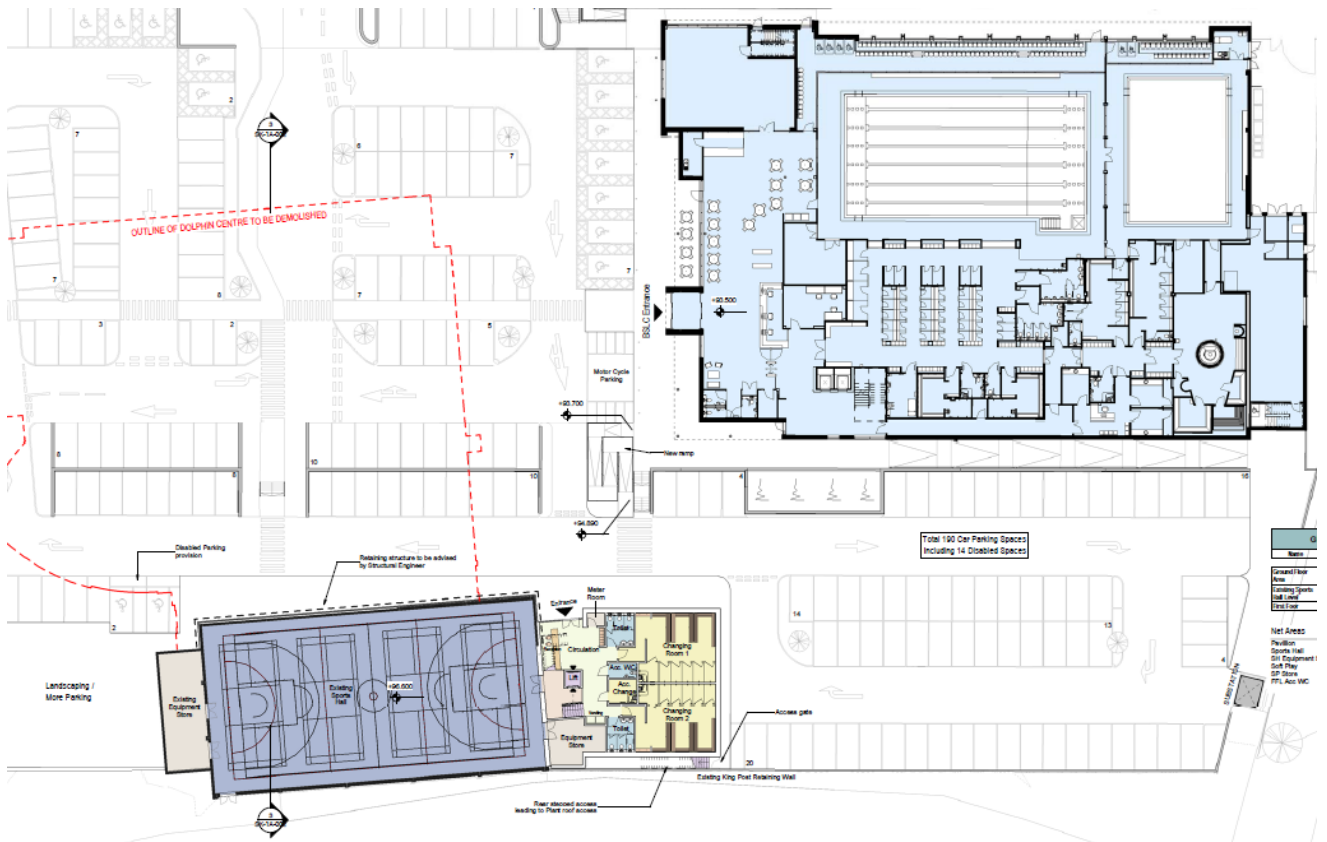
It is currently proposed to strip out and replace the existing services due to the age of the systems and therefore, reaching the end of their useful life and suitability against current Sport England recommendations and requirements. For example the current SON lighting in the sports hall is inefficient and does not achieve the lighting levels and glare limits recommended for Badminton by Sport England.

It would be recommend the installation of new high level natural ventilation turrets, gas-fired radiant heating and low energy LED lighting. A dedicated space for M&E plant and incoming utility meters would be required. The current meter room proposed on the architectural layout does not take into account the detailed requirements. Therefore it could be insufficient and require expansion. At this stage it would be estimated that an area in the order of 20m² would be sufficient.

| Advantages | Limitations |
|--|---|
| Utilisation of the existing hall , therefore all structure already in place, negates need for retaining wall extension along Well Lane | Equipment store: Due to the design utilizing the existing store, it would be a reduced size compared to a new build solution and is not in the optimal position for operations. |
| Opportunity to reclad and create new Changing facility linked to hall | Café access: Users are less likely to use the existing facilities if they do not have to use the main reception to book in |
| Ease of access to the Sub Station to the rear of the site | Sports Hall size: Limited space available to meet sport England requirements for a Four Court Sports Hall. |
| Highly visible frontage perpendicular to new BSLC facility | |
| Reduced entry level provides a more inclusive feel to the two buildings | |



Option 1a – Massing model (extract from Appendix A)



Option 1a – Site Plan (extract from Appendix A)

This option proposes a new sports hall and changing pavilion located on the 'rear' section of land adjacent to the existing leisure Centre. Whilst this area of land is at a higher level than the new BSLC, if the existing ground levels are used then the BSLC will lessen the impact of the height of the new sports hall.

This option provides a more joint approach to the facilities compared to option 1. The sports hall and new leisure Centre would be linked by a covered walkway and users would check-in via the existing leisure Centre before proceeding to the sports hall through via a set of steps or platform lift. In addition to the covered all way, a fence line would be required between the two buildings to ensure that the sports hall is revenue protected. This would omit the requirement for having an additional reception area. The remaining site area forms the car park, which is wholly visible when entering the site.

The entrance to the sports Centre is opposite the main circulation stair and full height glazing off the main leisure Centre reception so there would be some visual connectivity between the 2 buildings -

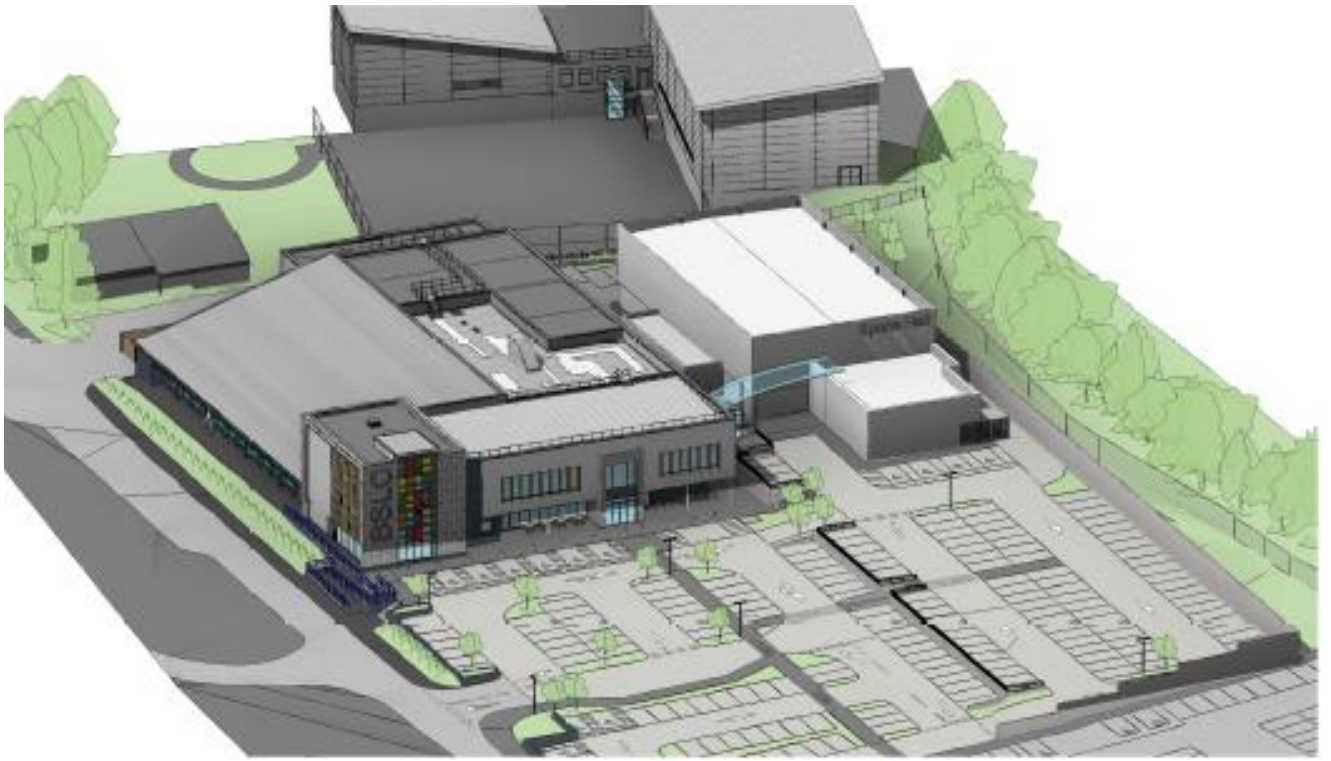
The massing of the new sports hall and changing is such that the lower single Storey changing pavilion is to the front but being of smaller scale adds emphasis to the main leisure Centre building and the main entrance.

New services would be installed to serve the new building and the installation of new high level natural ventilation turrets, gas-fired radiant heating and low energy LED lighting, would be recommended.

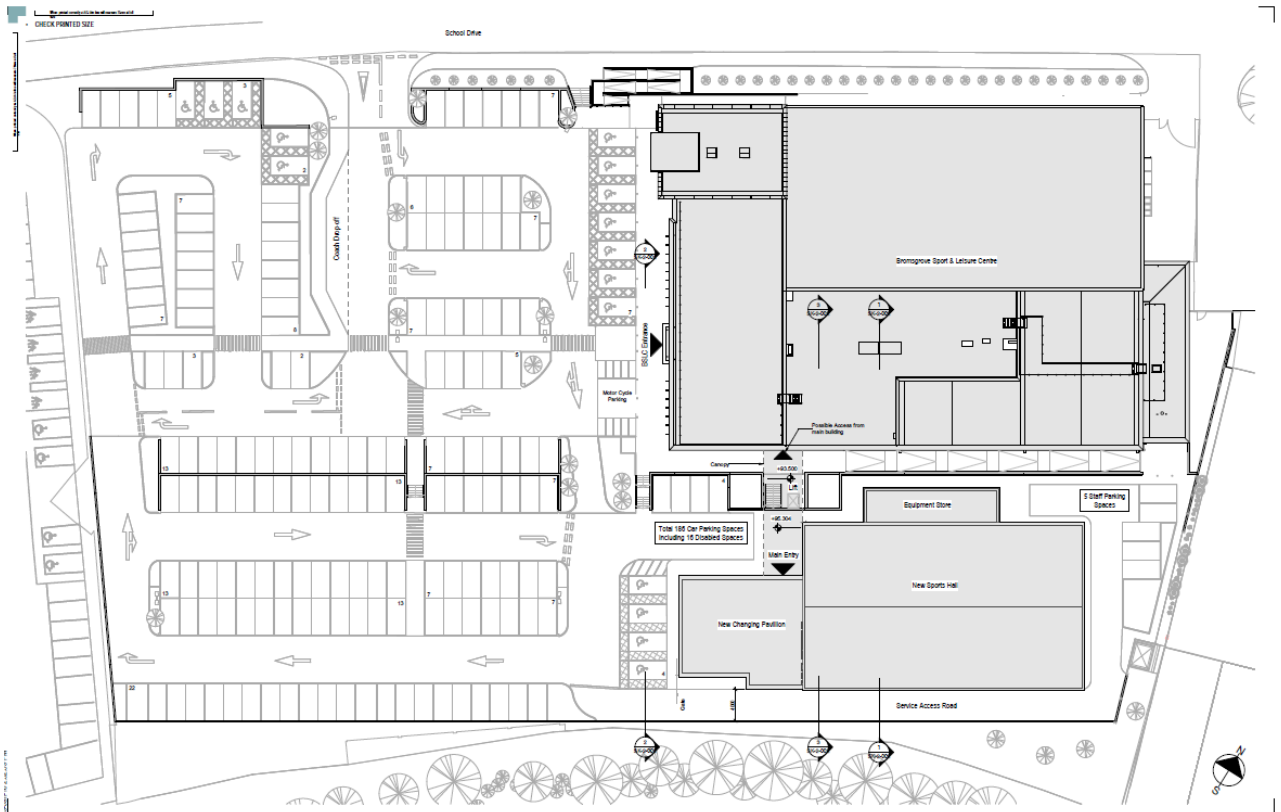
The current meter room proposed on the architectural layout does is based on the assumed capacity. Should this option be progress then DDA will undertake a number of surveys to detail the requirements. At this stage it would be estimated that an area in the order of 20m² would be sufficient.

It should be noted that this building location impacts on the position of the Electric Vehicle Charging Point (EVCPs) proposed for the new build leisure Centre and that these would need relocating elsewhere in the car park. It may be more economically viable to supply these from the electrical supply to the new build sports hall.

| Advantages | Limitations |
|--|---|
| The Hall, Changing pavilion and stores as a new build are fully compliant with the guidelines space and facilities requirements | A service road is require to reach the substation at the rear of the site |
| The orientation of the new building links well to the new Bromsgrove Sports & Leisure facility and provides an opportunity for a covered link from the main reception with new stair and Platform lift and replacement of a window in the BSLC with an external door | The building may been to be supported by extensive piles/ foundations due to the known make up of the ground from the construction on the BSLC. |
| The site massing allows for the bulk of the hall to be concealed behind the new facility with a highly visible new entrance and link on approach | Due to the space limitation, the building will be close to the retaining wall and therefore require careful engineering to determine the exact location |
| The orientation of the store on the long side allows for access when the hall is subdivided | Link will be required between the two building, which adds to the scope of the project. |
| The Car Park is left as one regular shaped arrangement where all spaces are visible on approach | |
| The phasing of new build and demolition of the Dolphin Centre is simple | |



Option 2 – Massing model (extract from Appendix A)



Option 1 – Site Plan (extract from Appendix A)

This option is similar to that of option two and also proposed a new sports hall and changing pavilion located on the 'rear' section of land adjacent to the existing leisure Centre, but by the nature of the site levels, at a higher level.

Access between the new leisure Centre and the new sports hall is via new steps and an existing external ramp. The changing pavilion and entrance is located to the rear of the new building and does not link to the new leisure Centre. The new sports hall appears correctly sized for a 4 court hall, however the equipment store is not in an ideal location on the short end of the hall. The remaining site area forms the car park, which is wholly visible when entering the site. The entrance to the sports hall is set well back and not visible from the site entrance.

The massing of the new sports hall and changing is such that the sports hall is to the front and could be a rather bland elevation with little opportunity for glazing etc. The height of the sports hall is slightly higher than the leisure Centre.

New services would be installed to serve the new building and the installation of new high level natural ventilation turrets, gas-fired radiant heating and low energy LED lighting, would be recommended.

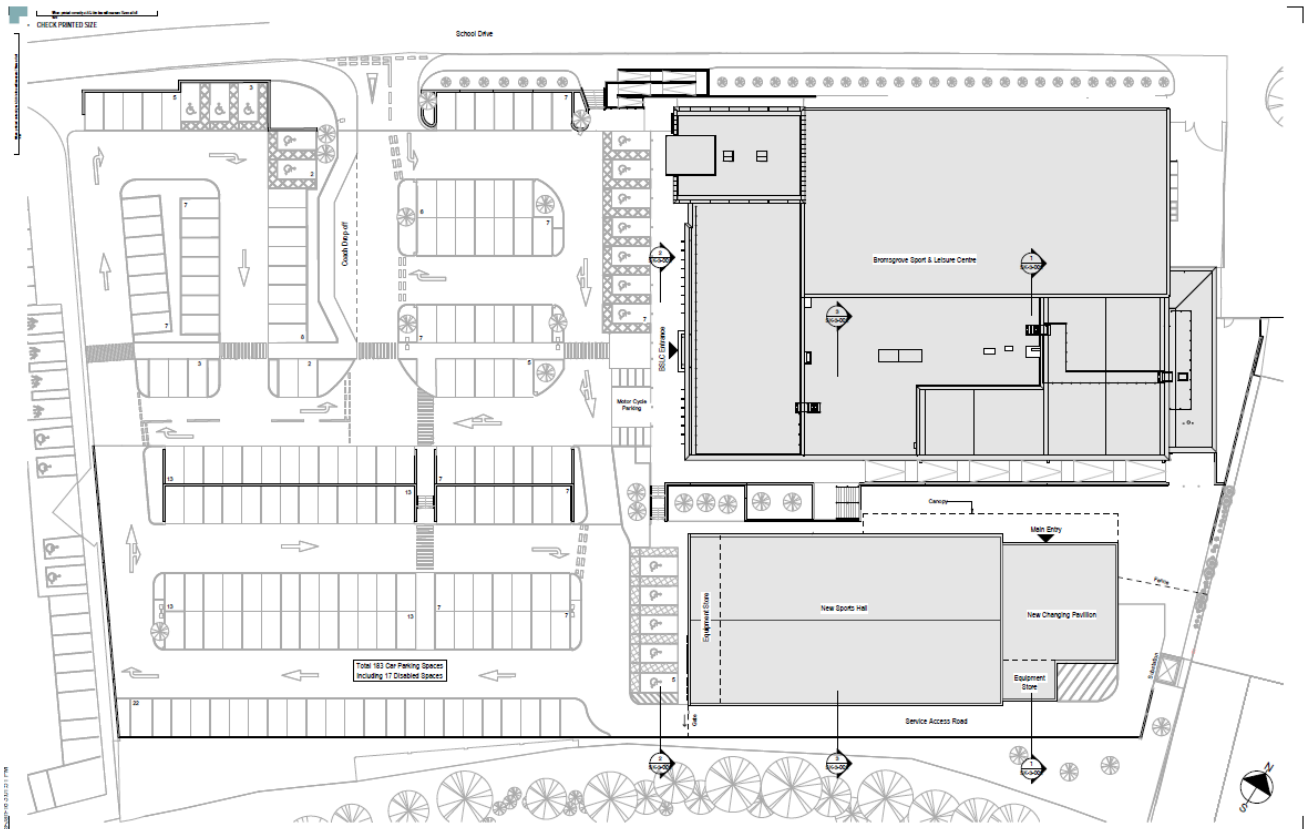
The current meter room proposed on the architectural layout does is based on the assumed capacity. Should this option be progress then DDA will undertake a number of surveys to detail the requirements. At this stage it would be estimated that an area in the order of 20m² would be sufficient.

It should be noted that this building location impacts on the position of the EVCPs proposed for the new build leisure centre and that these would need relocating elsewhere in the car park. It may be more economically viable to supply these from the electrical supply to the new build sports hall.

| Advantages | Limitations |
|--|--|
| The Hall, Changing pavilion and stores as a new build are fully compliant with the guidelines space and facilities requirements | The scheme is effectively option 2 mirrored in an attempt to utilise the existing ramp and negate the need for a platform lift. This however severely weakens the link to the new main building and leaves a large area of unusable space around the new entrance. |
| The site massing allows for the bulk of the hall to be concealed behind the new facility with a new entrance accessible by the existing ramp and a new set of stairs | The principle elevation to the car park is now a storage unit and the basic mass of the sports hall which lacks to the visual interest of Option 2 |
| The Car Park is left as one regular shaped arrangement where all spaces are visible on approach | The arrangement of storage is now separate and at either end |
| The phasing of new build and demolition of the Dolphin Centre is simple | A service access road is required to reach the Sub Station at the rear of the site |
| | The building may need to be supported on extensive foundations or piles due to the nature of the ground |
| | Due to the constraints of space the building will be close to the toe of the retaining wall that bounds the ramp along the Sports Centre which will determine careful structural consideration |



Option 3 – Massing model (extract from Appendix A)



Option 3 – Site Plan (extract from Appendix A)

2 Option 4 – Pre-fabrication/ Modular New Sports Hall and Changing Pavilion (Modular)

This option is based on the design of the proposed traditional new build location and therefore provides the same advantages as previously described, with regarding to location, car parking and the option to integrate the design of the newly complete BSLC.

Furthermore, the additional benefit to this option is use of a hybrid modular system which would utilise off site manufacturing to provide an effective and efficient operational building. The building is constructed using a steel frame before being in filled with timber panels and clad as prescribed by the project architect.

Through utilising a hybrid modular system the scheme can still benefit from many aesthetical enhancements made by the project architects, whilst also providing a simplistic construction progress. For example, one approach that could be taken is to use a steel frame with masonry infill panels with a single story building being predominately timber frame construction.

The Hybrid solution utilises off-site manufacturing techniques to pre-assemble sections of the structure. The pre-assembled panels are delivered to site and are quickly erected to form watertight areas before internal fit-out works commence.

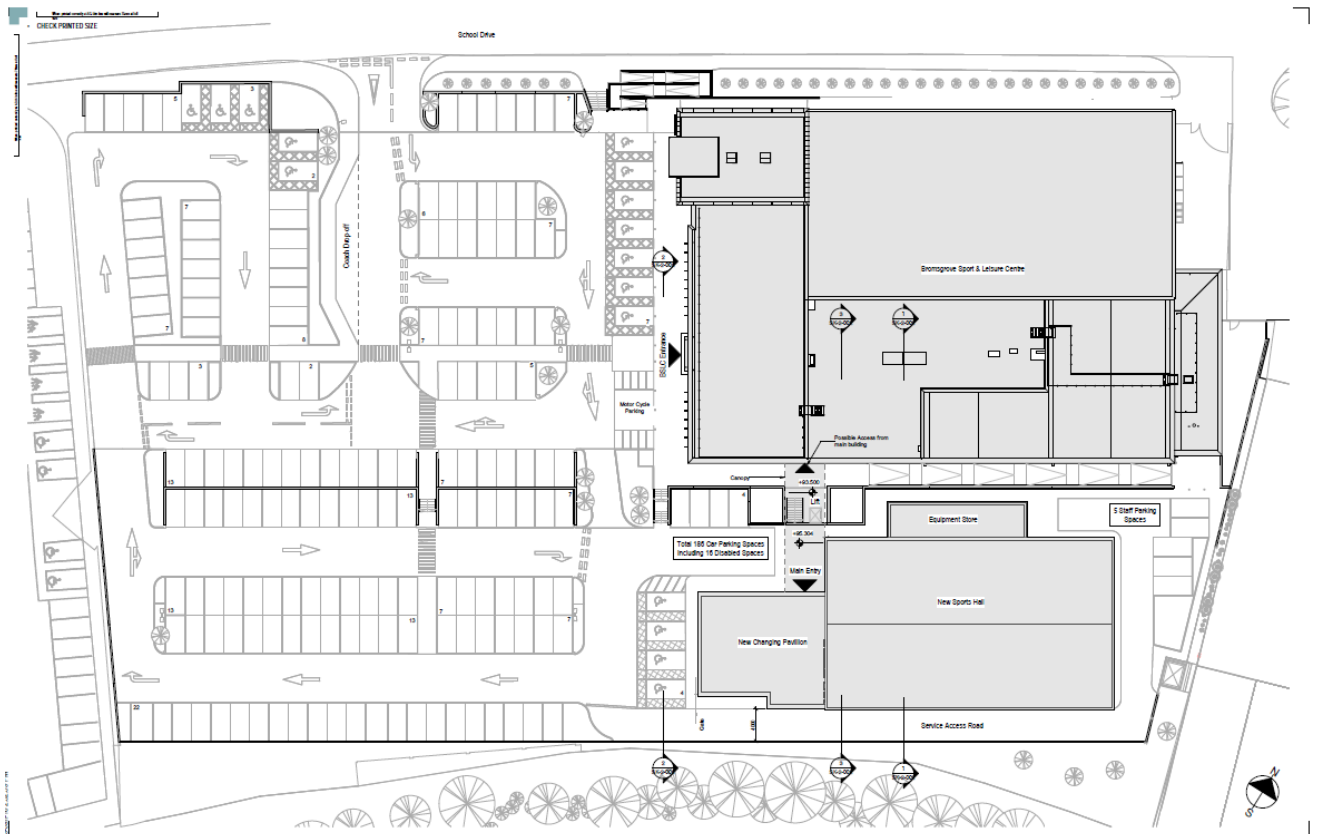
It would be anticipated that the M&E systems required for this option would be in line with option 2 & 3. However, further coordination would be required with the modular build contractor to ensure that the proposed systems are viable in the space available through the pre-fabricated super structure.

It should be anticipated that the proposed location of a modular building will still affect the position of the EVCPs proposed for the new build leisure Centre and that these would need relocating elsewhere in the car park.

| Advantages | Limitations |
|--|---|
| The Hall, Changing pavilion and stores as a new build are fully compliant with the guidelines space and facilities requirements | A service road is require to reach the substation at the rear of the site |
| The orientation of the new building links well to the new Bromsgrove Sports & Leisure facility and provides an opportunity for a covered link from the main reception with new stair and Platform lift and replacement of a window in the BSLC with an external door | The building may been to be supported by extensive piles/ foundations due to the known make up of the ground from the construction on the BSLC. |
| The site massing allows for the bulk of the hall to be concealed behind the new facility with a highly visible new entrance and link on approach | Due to the space limitation, the building will be close to the retaining wall and therefore require careful engineering to determine the exact location |
| The orientation of the store on the long side allows for access when the hall is subdivided | Link will be required between the two building, which adds to the scope of the project. |
| The Car Park is left as one regular shaped arrangement where all spaces are visible on approach | Limited design flexibility when using modular/ pre-fabricated components. |
| The modular build allows for a decreased on site programme duration, due to the off site manufacturing | |



Option 4 – Modular Example (extract from Appendix D)



Option 4 – Site Plan (extract from Appendix A)

2 Option 4a – Modular New Sports Hall, Changing Pavilion and soft play (Modular)

This option is based on the design of option 2 and therefore provides the same advantages as previously described.

Furthermore, the additional benefit to this option is use of a hybrid modular system which would utilise off site manufacturing to provide an effective and efficient operational building. The building is constructed using a steel frame before being in filled with timber panels and clad as prescribed by the project architect.

Through utilising a hybrid modular system the scheme can still benefit from many aesthetical enhancements made by the project architects, whilst also providing a simplistic construction progress. For example, one approach that could be taken is to use a steel frame with masonry infill panels with a single story building being predominately timber frame construction.

The Hybrid solution utilises off-site manufacturing techniques to pre-assemble sections of the structure.

The pre-assembled panels are delivered to site and are quickly erected to form watertight areas before internal fit-out works commence.

Further variations from option 4 includes the addition of a soft plan facility. This would be included on the first floor of the changing facilities and could include a double height space to maximize the soft provision.

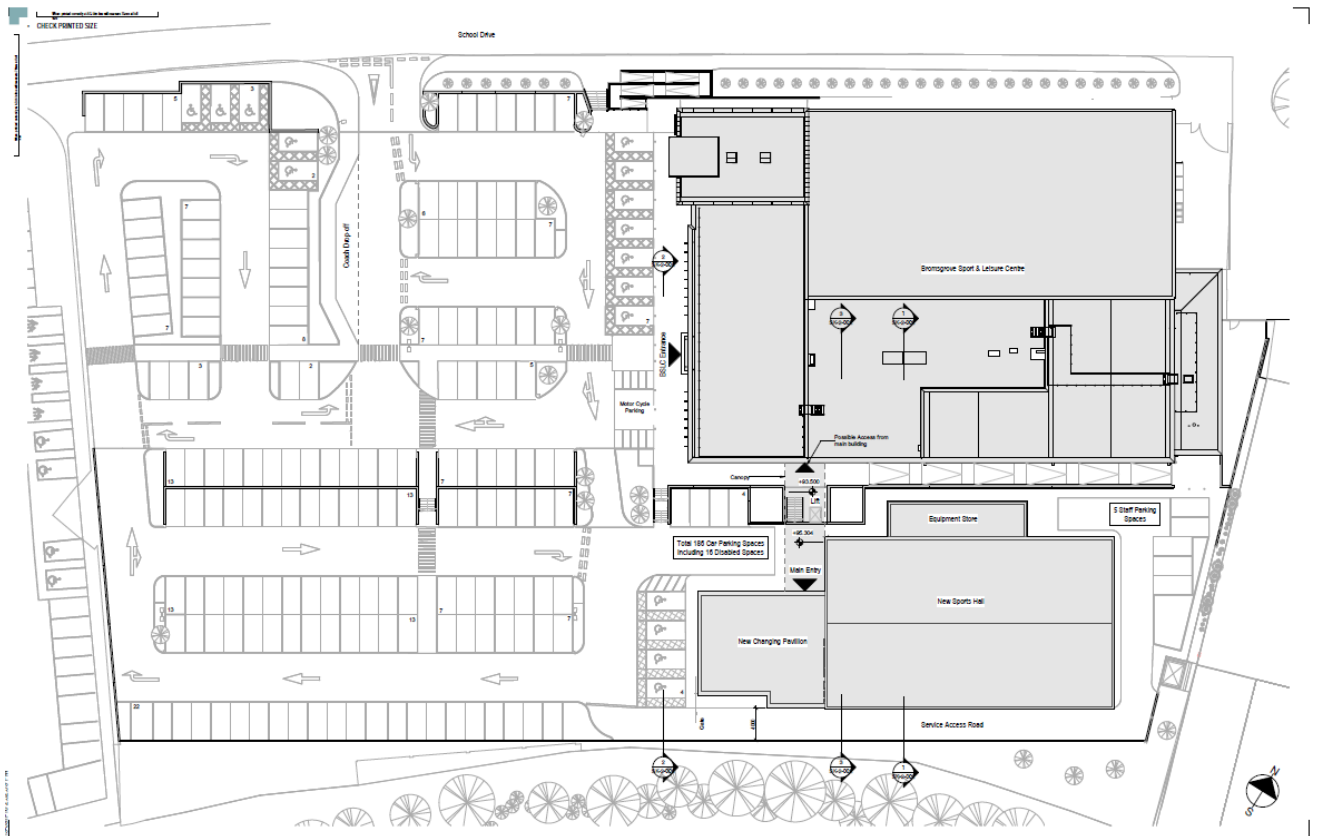
It would be anticipated that the M&E systems required for this option would be in line with option 2 & 3. However, further coordination would be required with the modular build contractor to ensure that the proposed systems are viable in the space available through the pre-fabricated super structure.

It should be anticipated that the proposed location of a modular building will still affect the position of the EVCPs proposed for the new build leisure Centre and that these would need relocating elsewhere in the car park.

| Advantages | Limitations |
|--|---|
| The Hall, Changing pavilion and stores as a new build are fully compliant with the guidelines space and facilities requirements | A service road is require to reach the substation at the rear of the site |
| The orientation of the new building links well to the new Bromsgrove Sports & Leisure facility and provides an opportunity for a covered link from the main reception with new stair and Platform lift and replacement of a window in the BSLC with an external door | The building may been to be supported by extensive piles/ foundations due to the known make up of the ground from the construction on the BSLC. |
| The orientation of the store on the long side allows for access when the hall is subdivided | Due to the space limitation, the building will be close to the retaining wall and therefore require careful engineering to determine the exact location |
| The Car Park is left as one regular shaped arrangement where all spaces are visible on approach | Link will be required between the two building, which adds to the scope of the project. |
| The modular build allows for a decreased on site programme duration, due to the off site manufacturing | Limited design flexibility when using modular/ pre-fabricated components. |
| Additional height of building allows full sized soft play provision | The additional height of the building limits what is concealed behind the new facility with a highly visible new entrance and link on approach |



Option 4a – Modular Example (extract from Appendix D)



Option 4a – Site Plan (extract from Appendix A)

2 Option 5 – New Sports Hall, Changing Pavilion & Soft Play (New Build)

This option is similar to that of option two and also proposed a new sports hall and changing pavilion located on the 'rear' section of land adjacent to the existing leisure Centre, but by the nature of the site levels, at a higher level.

Access between the new leisure Centre and the new sports hall is via new steps and a lengthy existing external ramp. The changing pavilion and entrance is located to the rear of the new building and does not link to the new leisure Centre. The new sports hall appears correctly sized for a 4 court hall, however the equipment store is not in an ideal location on the short end of the hall. The remaining site area forms the car park, which is wholly visible when entering the site. The entrance to the sports hall is set well back and not visible from the site entrance.

The addition of a multi-use space above the changing facilities would provide further benefits for Everyone Active & the council to provide a wider range of facilities, whilst also changing the front elevation, to match in with the new BSLC.

The massing of the new sports hall and changing is such that the sports hall is to the rear of the building and as such provides the opportunity to continue the design of the BSLC into the new sports hall through the use of glazing and fins.

New services would be installed to serve the new building and the installation of new high level natural ventilation turrets, gas-fired radiant heating and low energy LED lighting, would be recommended.

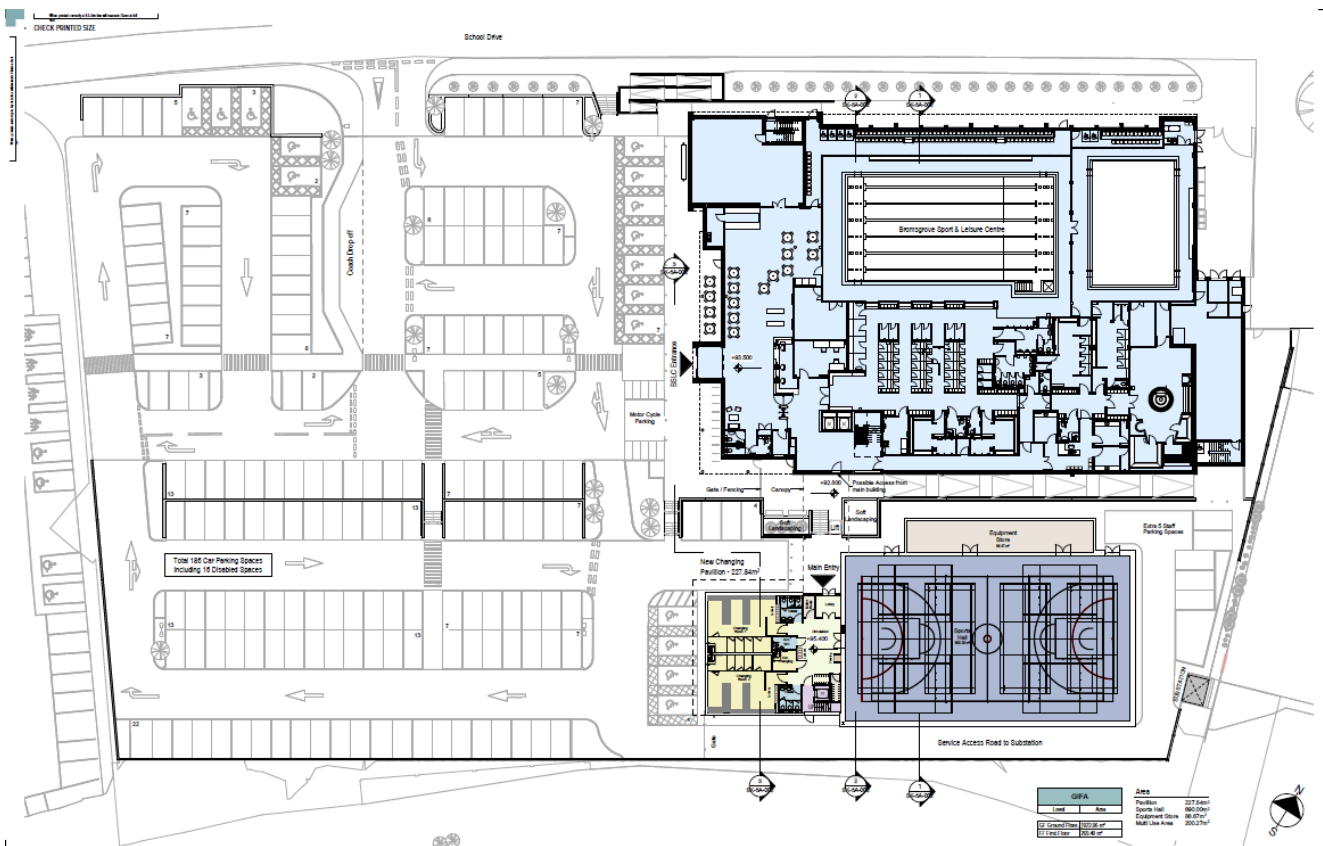
The current meter room proposed on the architectural layout does not take into account the detailed requirements. Therefore it could be insufficient and require expansion. At this stage it would be estimated that an area in the order of 20m² would be sufficient.

It should be noted that this building location impacts on the position of the EVCPs proposed for the new build leisure centre and that these would need relocating elsewhere in the car park. It may be more economically viable to supply these from the electrical supply to the new build sports hall.

| Advantages | Limitations |
|---|---|
| The Hall, Changing pavilion and stores as a new build are fully compliant with the guidelines space and facilities requirements | A service road is require to reach the substation at the rear of the site |
| The orientation of the new building links well to the new Bromsgrove Sports & Leisure facility and provides an opportunity for a covered link from the main reception with new stair and Platform lift and replacement of a window in the BSLC with an external door. | The building may been to be supported by extensive piles/ foundations due to the known make up of the ground from the construction on the BSLC. |
| The site massing allows for the bulk of the hall to be concealed behind the new facility with a highly visible new entrance and link on approach | Due to the space limitation, the building will be close to the retaining wall and therefore require careful engineering to determine the exact location |
| A 200m ² Multi use studio above the changing rooms allows for potential additional revenue generation and a second floor that maintains a visual synergy with the Main Sports Centre | Link will be required between the two building, which adds to the scope of the project. |
| The orientation of the store on the long side allows for equal access when the hall is subdivided. | |
| The Car Park is left as one regular shaped arrangement & all spaces are visible on approach | |
| The phasing of new build and demolition of the Dolphin Centre is simple | |



Option 5 – Massing model (extract from Appendix A)



Option 5 – Site Plan (extract from Appendix A)

| No. | Design Assumption | Potential impact of assumption |
|-----|--|--------------------------------|
| 1. | LED Lighting to be installed throughout to Sport England Standards | Low |
| 2. | Planning consultation is yet to be undertaken | Medium |
| 3. | No major upgrade of the utility services is required | Medium |
| 4. | Sports Hall would be operated as part of the Current BSLC by Everyone Active, this will be tested as part of the economic viability assessment during the later design stages. | Low |
| 5. | Should a New sports hall be progressed then the existing sports hall will be completed demolished. | N/A |
| 6. | Parking provision to be completed to the agreed quantities as per the original scheme | Low |
| 7. | Storage space has been designed to meet Sport England requirements. | Low |
| 8. | Level of changing provision has been designed to meet Sport England Requirements | Low |
| 9. | Sport England Engagement would be required from Feasibility. | Low |
| 10. | Ground conditions have been assumed as normal, until further surveys can be carried out. | Medium |
| 11. | Soft Play equipment provider is tendered during the design stage | Medium |
| 12. | Tender for a modular building contractor meets the programme & indicative costs of those provided by Elliot's. | Medium |

3. Costs

Mace have undertaken a cost review of all seven options available to the council and provided a high level summary of indicative costs. It should be noted that these prices have been estimated on limited design information, as would be expected at feasibility stage and take into account limited risks and no specific risks that may be realised from undertaking any of the options.

Whilst the designs have been designed in line with Sport England's affordable sports hall model, Mace have used the Sport England rated as a guide and then compared this to our own benchmarking data. For this project we have compiled benchmark data from both Sports Hall and Pavilion projects to provide the most accurate benchmark data possible.

As part of the progress towards RIBA Stage 4, Sport England will continue to be engaged and sit on the Project Management board.

Benchmarking Data:

The benchmark data can be viewed below and is summarised as a Sports Hall & Pavilion as follows:

Sports hall:

£1,535 /m² based on BCIS rates and Mace internal benchmarking data as a guide

Pavilion:

£2,250 /m² based on Mace internal benchmark data for Pavilions. There were a few bespoke items that impacted the £/m² rates within the benchmarking data and so Mace took a view and adjusted to suit.

Contingency Levels

Within the comparison table overleaf, there are varying levels of contingency. This is because the percentage of contingency for refurbishment is higher due to the level of unknowns and higher risk profile associated under a refurbishment project.

Professional fees

Costs for professional fees across the options vary as they are taken as a percentage of the total construction amount. As we are at feasibility stage we have allowed for 10% for professional fees and surveys on all options until more details becomes available and costs become refined.

Inflation

This has been based on the current economic movement and forecast to construction in third Q3/2018. This is currently forecast to be 5% inflation.

Pavillion benchmark Data

| Project | Cost per Square Metre |
|-----------|-----------------------|
| Project 1 | £3,267 |
| Project 2 | £3,797 |
| Project 3 | £3,300 |
| Project 4 | £3,557 |
| Project 5 | £2,816 |

Sports Hall benchmark Data

| Project | Cost per Square Metre |
|-----------|-----------------------|
| Project 1 | £2,137 |
| Project 2 | £2,171 |
| Project 3 | £1,747 |
| Project 4 | £1,563 |
| Project 5 | £2,042 |

| | Option 1 Refurbishment 934m ² | Option 1a Refurbishment 1,203m ² | Option 2 New Build 997m ² | Option 3 New Build 915m ² | Option 4 Modular 1000m ² | Option 4a Modular 1,269m ² | Option 5 New Build 1,274m ² |
|--|--|---|--|--|---|---|--|
| Construction | 1,240,000 | 1,930,000 | 1,660,000 | 1,675,000 | 1,650,000 | 2,170,000 | 2,370,000 |
| Site specific costs | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 |
| Car Park Works | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Externals | 240,000 | 240,000 | 300,000 | 270,000 | 270,000 | 270,000 | 300,000 |
| Sub-total construction | 1,530,000 | 2,220,000 | 2,010,000 | 1,995,000 | 1,970,000 | 2,490,000 | 2,720,000 |
| Preliminaries (12%) | 180,000 | 270,000 | 240,000 | 240,000 | 0 | 0 | 330,000 |
| OH&P (5%) | 90,000 | 120,000 | 110,000 | 110,000 | 0 | 0 | 150,000 |
| Inflation (0.5% to Q3 2018) | 90,000 | 130,000 | 120,000 | 120,000 | 100,000 | 120,000 | 160,000 |
| Contractor Risk (5%) | 80,000 | 120,000 | 110,000 | 110,000 | 100,000 | 130,000 | 140,000 |
| Pre-construction fee | 25,000 | 25,000 | 25,000 | 25,000 | 25,000 | 25,000 | 25,000 |
| Total construction | 1,995,000 | 2,885,000 | 2,615,000 | 2,600,000 | 2,195,000 | 2,765,000 | 3,525,000 |
| Prof. fees and surveys (10%) | 200,000 | 290,000 | 250,000 | 260,000 | 220,000 | 280,000 | 350,000 |
| Contingency (15% refurb 10% new build) | 330,000 | 480,000 | 290,000 | 290,000 | 240,000 | 300,000 | 390,000 |
| Client committed Costs | 470,000 | 470,000 | 470,000 | 470,000 | 470,000 | 470,000 | 470,000 |
| Total cost | 2,995,000 | 4,125,000 | 3,635,000 | 3,620,000 | 3,125,000 | 3,815,000 | 4,735,000 |



4. Business Case

The high level revenue projections are based on The Sports Consultancy's benchmark database. This contains over 1,000 years' worth of income and expenditure data from more than 450 wet and dry leisure center's across the UK. This is updated continually and the latest data could provide variations from any detailed work previously carried out.

The following high level comments on the likely revenue implications of adding a 4 court sports hall to the operation of the existing BSLC are based on the assumption that the new or refurbished 4 court hall would be available for school, club and community use throughout the day, as with the rest of the Centre. It has also been assumed that management, bookings and staffing etc. would be delivered under the management contract with SLM and not a separate operator. We have considered the key issues relating to the income and expenditure associated with adding a sports hall and the net revenue implications. These are summarised below:

For the purpose of these high-level projections we have assumed £20,000 per court per annum is achievable at the new Bromsgrove Leisure Centre, subject to programming and pricing assumptions etc.

The estimated costs will vary by option, with staffing, premises, repairs and maintenance, management costs, overheads and profit being considered. There is more scope in variation on costs between the options than income' and a full impact assessment must be undertaken as part of the design process at RIBA Stage 1 & 2 to further understand the opportunities for this site.

Based on the current market conditions and specifically the recent closing of the imagination Centre, there are further opportunities regarding the potential revenue a sports hall with additional soft play may generate.

The current leisure market is buoyant and this has been reflected in recent operator tender returns across the west midlands, where the income model that the operators have been returning has been stronger than those estimated by the councils pre-tender.

Added Value

There are a few dry-side activities that can be added to Bromsgrove Sport & Leisure Centre which will generate an operational revenue benefit.

Given that clip n climb and health and fitness facilities are already provided in the new Centre, only indoor soft play remains as a potential addition. There are many variations of the traditional soft play facilities, including providers such as tag active. Further work would be required to determine the revenue implications of such additions but it is possible the a net benefit of circa £50k per annum could be achieved.



5. Programme

5 Programme

Mace have undertaken a high level review of the master programmes to provide Bromsgrove District Council with a range of indicative timescales, to aid the decision between each of the four options.

Whilst there are 7 design options to choose from, these correlate to 3 potential programmes. These are as follows:

Programme A: Option 1 & 1a
 Programme B: Options 2, 3 & 5
 Programme C: Option 4 & 4a

Designs 2, 3 & 5 have been based on the same programme due to the similarities in their design and construction methodology.

It should be noted that in order to provide a comparable scheme it has been assumed that all procurement of any contractors is completed through the OJEU process. However, once a decision has been made as to which design to proceed with, Mace would then be able to undertake a procurement strategy report during RIBA Stage 2.

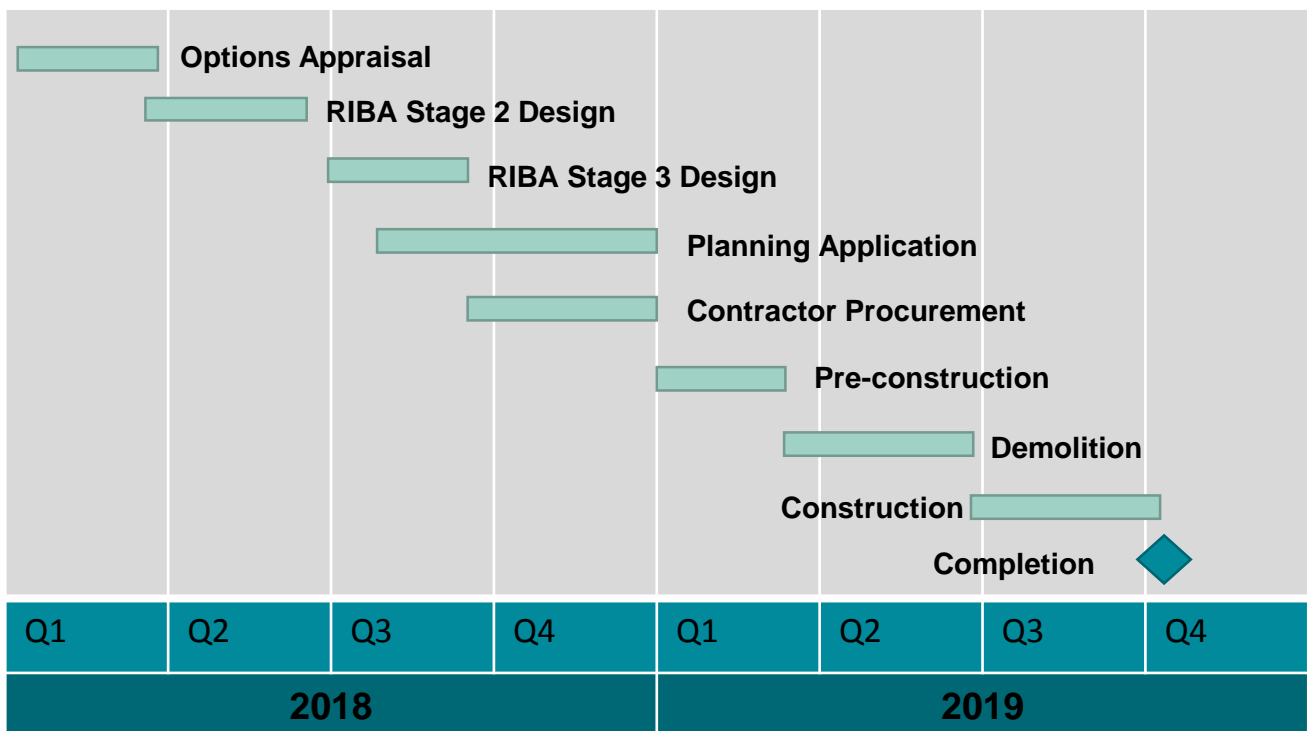
As well as outlining the key project milestones below and a snapshot of the timescales, below, a full master programme of each programme can be found in appendix C.



Programme Option A:

The programme for the utilisation of the existing sports hall is longer in duration due to the added complexities in the design phases to account for the interface between the demolition of the dolphin centre & the additional structural interfaces in the groundworks, including a revised foundation plan.

Furthermore, the construction durations are longer than other options due to the lost opportunity to demolish the Dolphin Centre, whilst constructing the new sports hall.

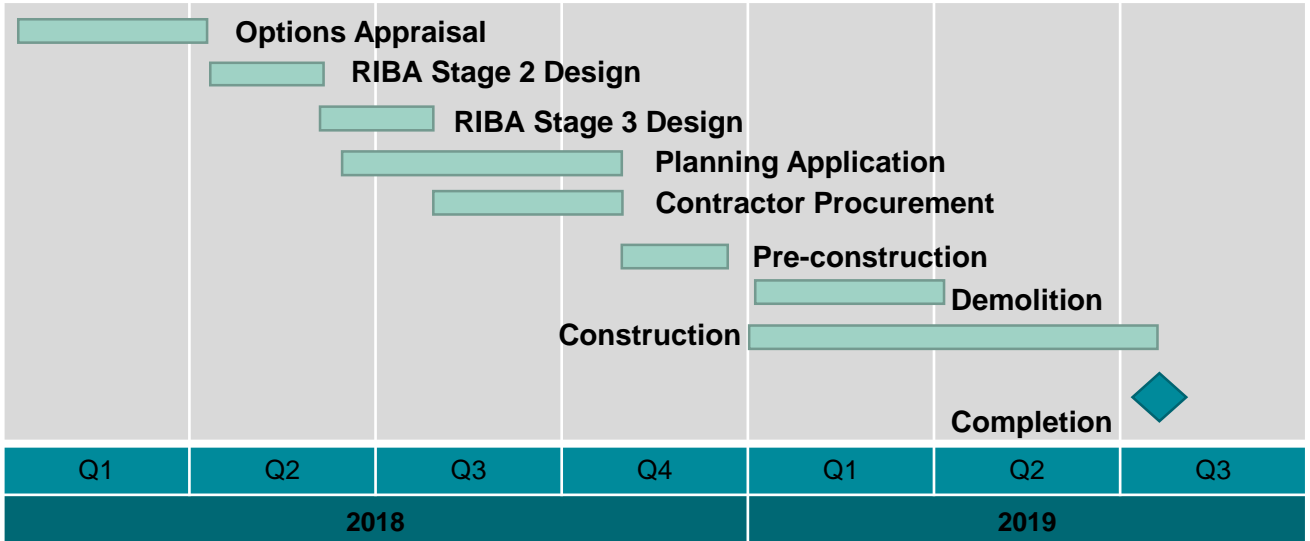


5 Programme

Programme Option B:

The programme for design options 2 & 3 follows the principles of a design & build contract where the construction works are tendered on RIBA Stage 3 design information. This approach a successful method for undergoing a leisure project, as was experienced by the recent completion of the Bromsgrove Sport & Leisure Centre.

The programme follows the same flows as programme A. However, the durations are able to be reduced due to the reduction in design complexities due to the scheme being new build opposed to a refurbishment. Furthermore, due to the layout of the site it is possible to start construction of the new leisure centre whilst demolishing the existing Dolphin Centre.

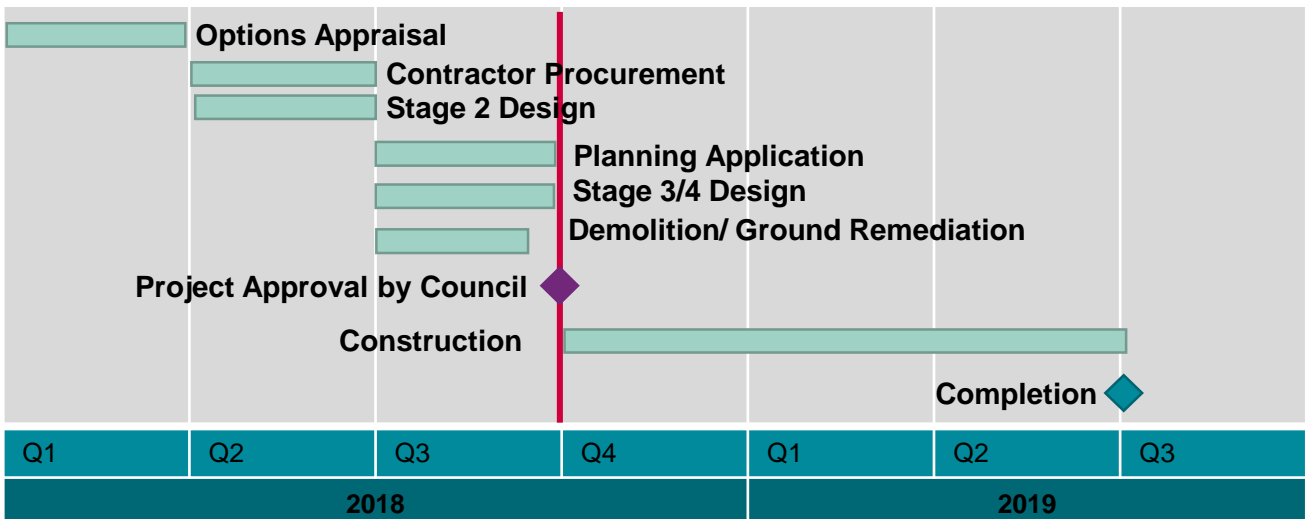


Programme Option C:

The programme for design option 4 is the shortest available to the council due to the early engagement with a specialist modular contractor, early demolition & off-site manufacturing. By using all of these methods together the council could achieve practical completion by Q1 2019.

Whilst this option will involve additional coordination by procuring an enabling works contractor (demolition), followed by a modular building contractor, the benefits to the council could be an earlier practical completion date of up to 6 months compared to the more traditional methods of construction and programming.

This is shown on the programme overview below:



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6. Conclusion & Next Steps

This report has provided an overview of the Seven Sports Hall options available to Bromsgrove District Council. Having completed our review of the options there are clear design & programme advantages of constructing a new building compared to renovating the existing Sports Hall. However, the initial financial assessment suggests that this could be the more expensive approach to take. In order for more detailed and informative decision as to which design to proceed with, it is recommended that two options are taken forward to feasibility. This would allow for the design team to undertake more and initial surveys of a new build & existing option, which in turn would provide the required comparison.

Following a review of this report it is recommended that the council discuss the options available with Mace to provide further clarification, if required, prior to deciding whether to proceed with any of the options. Should an option be selected that it would be anticipated that a full design team is procured, as well as any early engagement with Everyone Active as the operator & potentially a modular building contractor.

Upon completion of the feasibility study, the project would then follow the 2013 RIBA Stages through to project completion. This includes Stages 1-4 which is the process of developing a detailed design and procurement of a contractor before moving onto Stage 5, Construction and then Stage 6, handover & 7 which is when the building is operational. At the end of each stage the team will provide the council with a Gateway report, this will include the

updated designs, cost estimates, programme & risk management, for sign off.

It should be noted that from the BSLC project, the council is committed to demolishing the existing leisure centre, including the removal of asbestos and construction of the new leisure centre car park. Whilst the construction of a new sports hall will impact on this, the council should remain committed to the completion of the already committed works.

Further to progressing the design, in order to continue to provide a sports hall during the design and construction phase. If option 1 was proceeded, it could be arranged for a temporary boiler and generator plant to be installed and keep isolated services in operation. This would be via containerised plant located in the car park with flexible cables and hoses routed around to pick up the existing services – it is currently believed that the main electrical distribution boards and underfloor heating manifold for the sports hall are located in the small store on the internal long wall of the sports hall.

To conclude, the next step is for Bromsgrove District Council to review and receive sign off for their preferred option of sports hall before further engaging the team to undertake a full feasibility report, consisting of the preferred two options. This would provide more detail on all areas of the project and specifically would be the first opportunity to identify and key risks to the project.



