

RIBA Stage 2 Report

Project No. 20438

Plumpton Pavilion Project

King George V Playing Field

Plumpton Green

Lewes

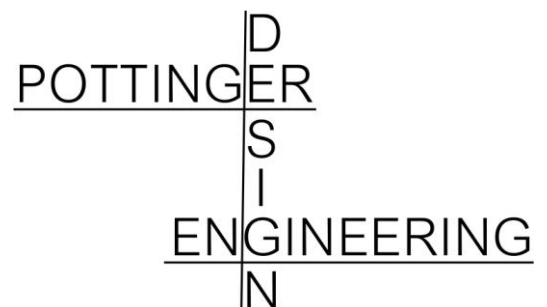
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Document No. 20438-RPT-002

Client: Plumpton Parish Council

8th July, 2024

Pottinger Design Engineering Ltd





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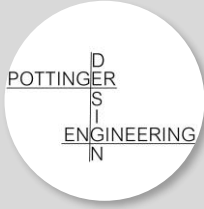
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1. Introduction

(Please note: This report forms the Project Brief, and should be considered as a 'live' document that will develop in content and form as the project and design process progresses)

The Pavilion on the King George V Playing Field in Plumpton has been serving the local community for many years, with facilities including changing rooms and showers, social bar, and kitchen area. The building is used by the local sports teams during training and matches, and several groups as a social meeting place. It is also available for private hire. During the week the building is used by Honeybees Preschool.

However, despite ongoing maintenance and repairs, a structural inspection has confirmed significant structural defects that will need to be addressed. Additionally, the preschool will soon outgrow the available space, and the 'ad hoc' nature of previous extensions do not provide an optimal layout for the various users.

2. General


2.1 Project Objectives

The general objectives to be achieved in the project are as follows:

Provide a new pavilion building to achieve the below objectives:

- Provide 2 changing rooms and officials changing room to be compliant with ECB requirements.
- Provide a new preschool facility to accommodate 20 children under 2 and 40 children over 2 and up to 5 years old, together with 11 members of staff. Design is to be in accordance with 'SureStart' Full Day Care National Standards for under 8's day care and childminding.
- The preschool and sports facilities should be able to be operated independently.
- The sports facilities are to include a social area with bar and kitchen, with an option to serve drinks through a hatch directly to the playing field.
- The new facilities should be clean, modern, and functional, with traditional materials to the exterior to suit the rural location.

Both a 1 storey and 1.5 storey option has been requested to be explored at Concept Design stage, with the possibility of providing the bar and social space upstairs overlooking the playing field.

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2.2 Project Relationships

Pottinger Design Engineering Ltd (PDE) has been appointed to undertake the project management and architectural & structural design of the project on behalf of Plumpton Parish Council (PPC). The day-to-day project relationship would then be with the Pavilion Work Group, which is formed of members of PPC and representatives of the various users.

2.3 Consultations

PPC have undertaken consultation surveys with the building users, neighbouring properties and the local community. The results of these consultations and any impacts on the design are to be discussed at the Working Group meeting on 8th July 2024.

3. Site

3.1 Site Development History

The development of the site is explained in the structural appraisal report, showing how various additions to the original building have been made over the years.

3.2 Topography and Geology

From inspection, the site is predominantly level with slight undulations. A topographic survey has been instructed with the results due towards the end of Stage 2. For the purposes of the Stage 2 design development, it has been necessary to use generic OS mapping. A trial pit confirmed the site is underlain with clay, as indicated on the British Geological Survey records. From previous planning applications made at the site, it is understood that there is a risk of contaminated soil being present which will need to be considered as a CDM risk during the design development and properly managed by the Contractor during the construction works.



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4. Planning Considerations

4.1 Site History

Aside from the previous development noted in the structural appraisal report, there have been two previous designs developed for an alternative facility. However, these were not possible to construct once developed, and subsequently no longer suit the users' requirements.

4.2 Planning Constraints

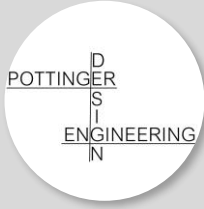
The site falls just outside of the South Downs National Park. Key areas identified at this stage which the proposed development will need to address during the planning process include:

- Sustainable Urban Drainage (SuDS)
- Biodiversity Net Gain (BNG)

5. Environmental

5.1 Environmental Requirements

PPC has no particular environmental policy in place for this project. There are however aspirations for the project to be as sustainable as possible within the financial constraints. In addition to this, it should be noted that the above two areas required for planning (SuDS and BNG) can both be at least partially addressed by the introduction of a green roof. The presence of clay limits the effectiveness of 'soakaway' drainage (which is a common SuDS solution for surface water drainage) but it may be possible to utilise the nearby stream for this purpose instead. It may also be desirable to introduce a small attenuation pond as part of the drainage strategy which would also contribute towards the required BNG.



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6. Financial

6.1 Budget

At this stage a construction budget has not been established, as this will depend on what grants are available. However, a provisional figure of approximately £1.2m is an indicative target.

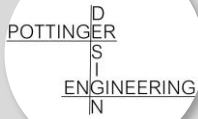
6.2 Approximate Construction Costs

The below construction cost estimates are provided for the two proposed design options. These are based on the approximate estimating rates provided in Spon's Architects and Builders Price Book 2024.

Single Storey Option					
Element	Area	Lower Rate (£/m ²)	Upper Rate (£/m ²)	Lower Estimate	Upper Estimate
Preschool	316	£2,000	£2,525	£632,000	£797,900
Sports Pavilion	187	£1,925	£2,425	£359,975	£453,475
Shared Facilities	18	£1,550	£2,000	£27,900	£36,000
Total				£1,019,875	£1,287,375

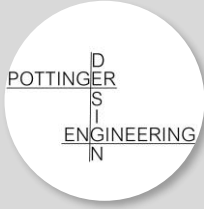
Two Storey Option					
Element	Area	Lower Rate (£/m ²)	Upper Rate (£/m ²)	Lower Estimate	Upper Estimate
Preschool	299	£2,000	£2,525	£598,000	£754,975
Sports Pavilion	275	£1,925	£2,425	£529,375	£666,875
Shared Facilities	15	£1,550	£2,000	£23,250	£30,000
Total				£1,150,625	£1,451,850

As these estimates do not specifically take into consideration any structural savings related to a two-storey construction, the below Estimated Cost Plans were produced to determine whether the structural savings of the two-storey would outweigh the additional costs of elements such as lifts and stairs. (Please note that these are not fully costed construction cost plans, but rather targeted areas of the build where differences between the options would have greatest cost implications.)



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Design Option 1 – Single Storey		Design Option 2 – Two-Storey	
Substructure		Substructure	
Element	Cost	Element	Cost
Foundations	£55,553	Foundations	£47,309
Ground Floor	£54,176	Ground Floor	£49,723
Total	£109,729	Total	£97,032
Superstructure		Superstructure	
Element	Cost	Element	Cost
Walls	£242,878	Walls	£286,651
Roof	£265,682	Roof	£253,468
Windows	£34,685	Windows	£7,250
Doors	£66,200	Doors	£59,650
		Floors	£16,635
Total	£609,445	Stairs	£10,800
		Lift	£16,000
		Total	£650,454
'Structural Shell' Total	£719,174	'Structural Shell' Total	£747,486



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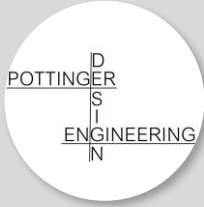
7. Design Solutions

7.1 Design Option 1 – Single Storey Building

The building is designed with a shared common entrance, which leads to either the sports facilities or the preschool. The roof pitches have been kept shallow to minimise the overall height of the buildings and ensure they are suitable for incorporating green roofs.

The sports facilities have been designed to be simplistic and modern in nature, with a view to keeping construction timescales and costs to a minimum. Internal walls are to be constructed in concrete blockwork, allowing a robust construction that will be easily maintained.

The preschool features an entrance corridor giving space to store bags as well as an informal space for staff to speak with parents/carers. This leads through to the main preschool building, which predominantly features a large square hall with high ceiling space. This space features a low pitch butterfly roof, with porthole windows at low levels looking out to the adjacent woodlands. A generous but secure outdoor playing space is provided, including a well sized covered area allowing year-round access to the outdoors which is nestled into a 'nook' of the building to provide shelter from the wind and minimise noise travelling to the adjacent housing. The overall ethos of the building is to promote a connection between the children and the surrounding nature and to encourage a sense of curiosity. The height of the butterfly roof allows the possibility of introducing a mezzanine area in the main play area, which could be designed as an 'internal treehouse' to provide further space and interest.



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7.2 Design Option 1 Architectural Visualisations

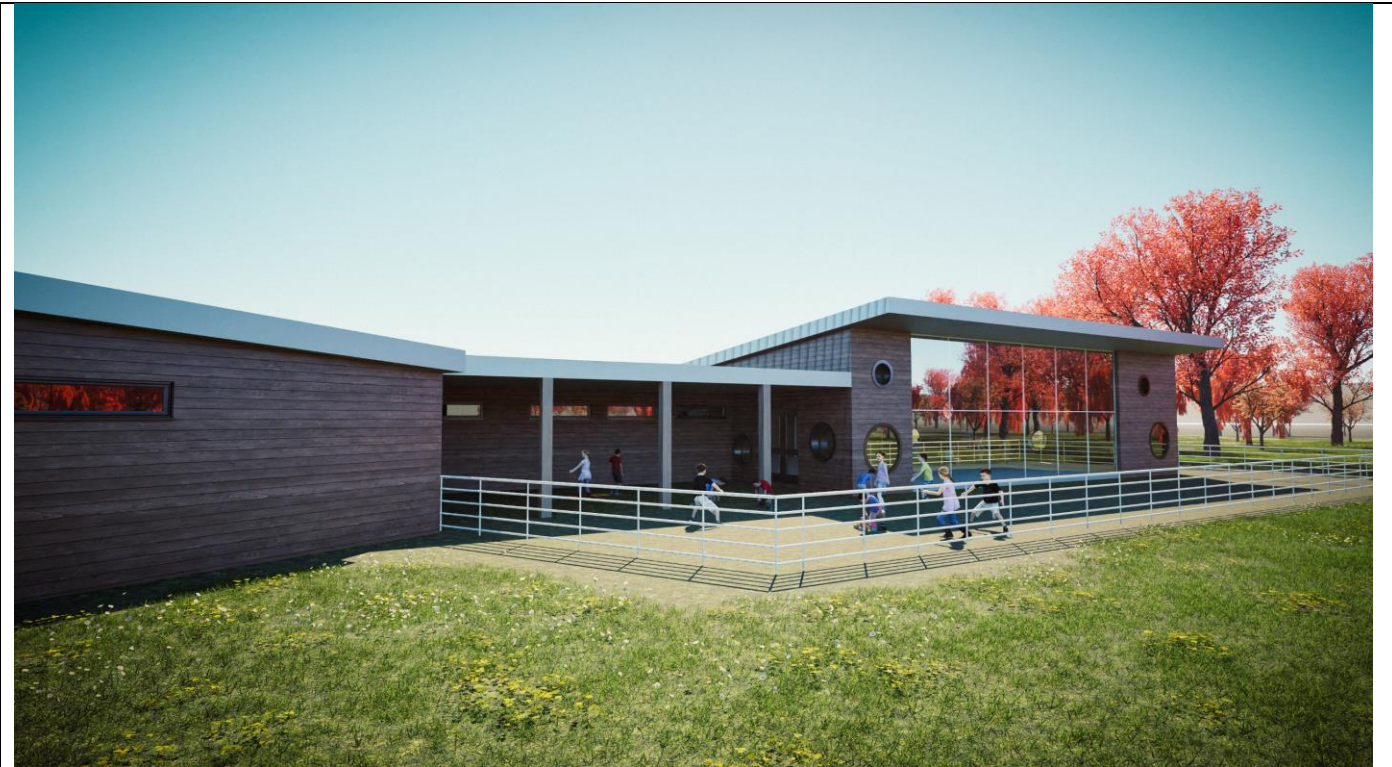


Image 1 – Rear Elevation



Image 2 – Front Elevation



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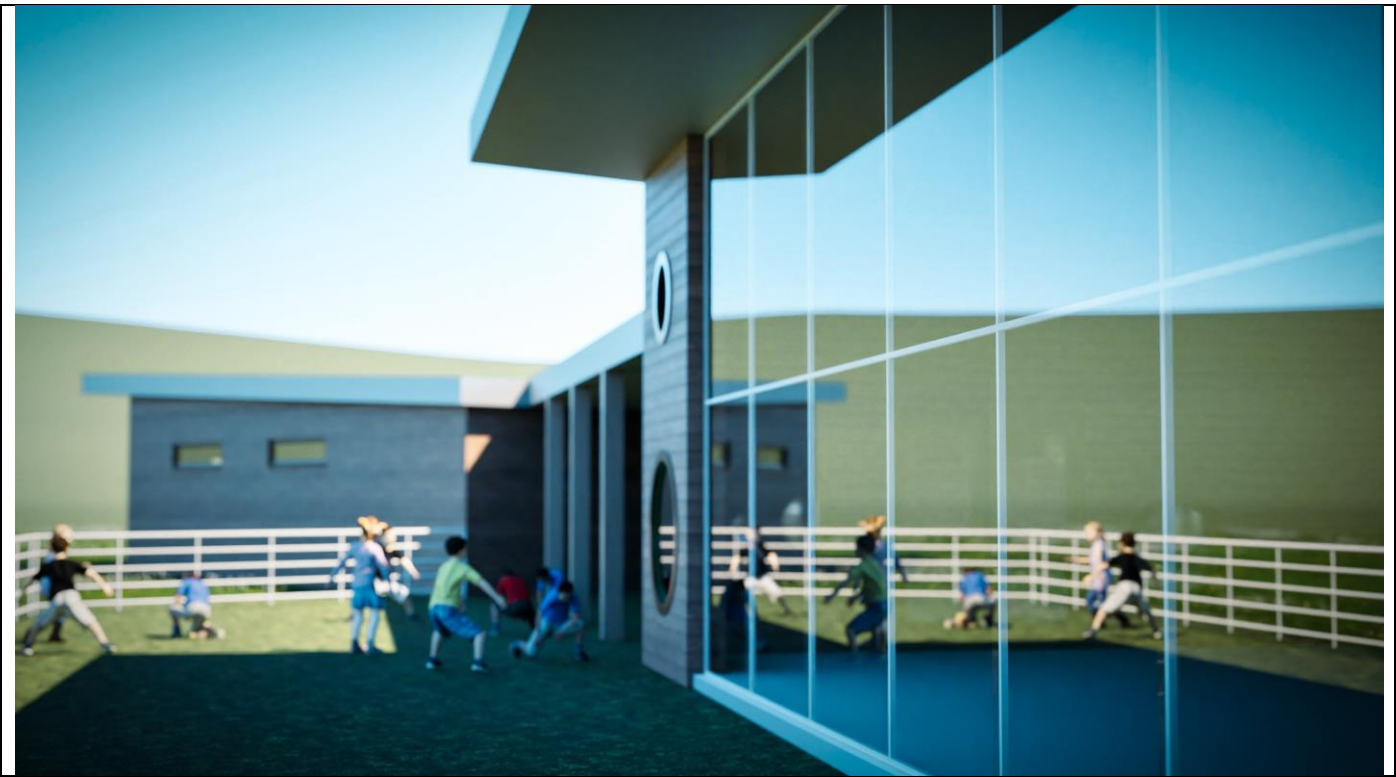


Image 3 – Detail View of Rear Elevation

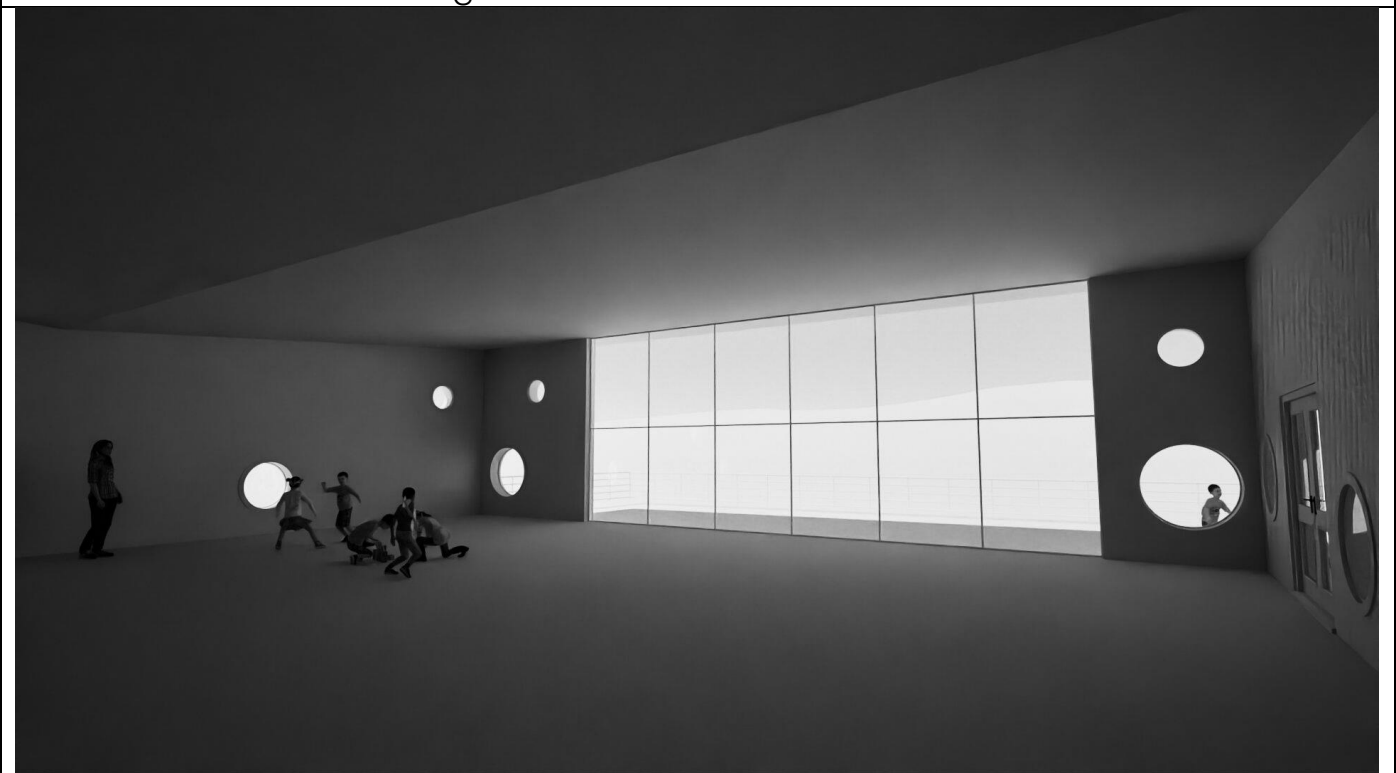



Image 4 – Internal View of Play Area

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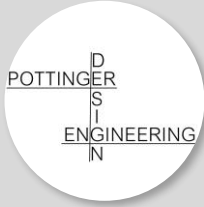
7.3 Design Option 2 – Two-Storey Building

Similarly to Option 1, a shared entrance leads to either the preschool or sports facilities allowing independent operation of each space. A more traditional duo-pitched roof is provided to give a more traditional aesthetic to the building in order to mitigate the overall size. This does however limit the opportunity to introduce green roofs.

The sports facilities feature the changing rooms, public toilets and kitchen at ground level, allowing maximum utility during match times. A central core contains the stairs and lift to the upstairs bar area and balcony.

To minimise the overall building footprint and capitalise on the required stairs and lift, an upstairs area was also introduced for the preschool providing attractive staff facilities. Should wheelchair accessibility be required, it would be possible to utilise the lift from the sports side of the building with keycard access to doors maintaining the security of the preschool.

The main play area of the preschool again features a high ceiling to maximise the overall quality of the space, but due to the roof pitch would not likely be able to accommodate a mezzanine area. Porthole windows have not been featured as it was felt that they were not in keeping with the overall form of the building (whereas in Option 1 they provide a distinct visual cue that the preschool is a 'separate' entity, with Option 2 it is felt the overall form of the building is more singular and so should not be provided with this visual distinction).



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7.4 Design Option 2 Architectural Visualisations

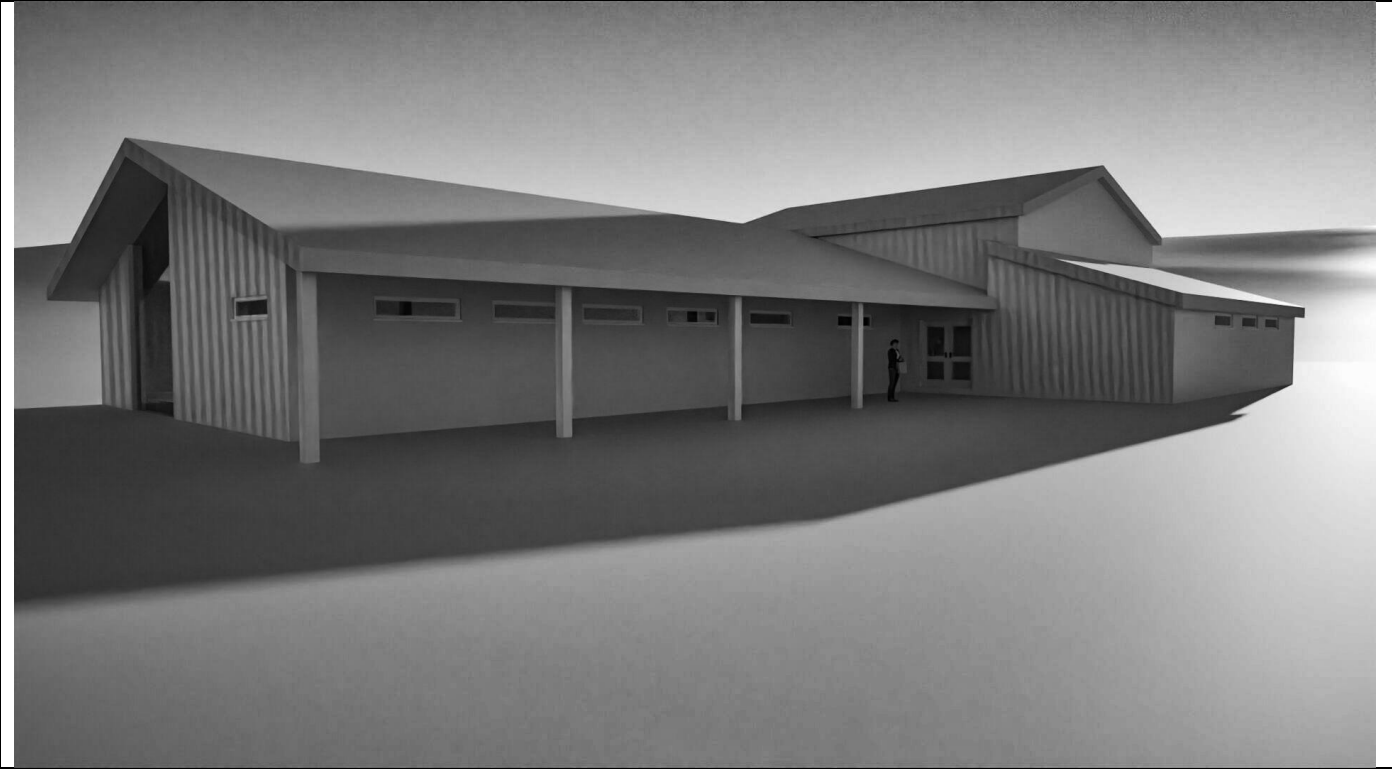


Image 1 – Front Elevation



Image 2 – Rear Elevation



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Image 3 – Play Area Looking Out

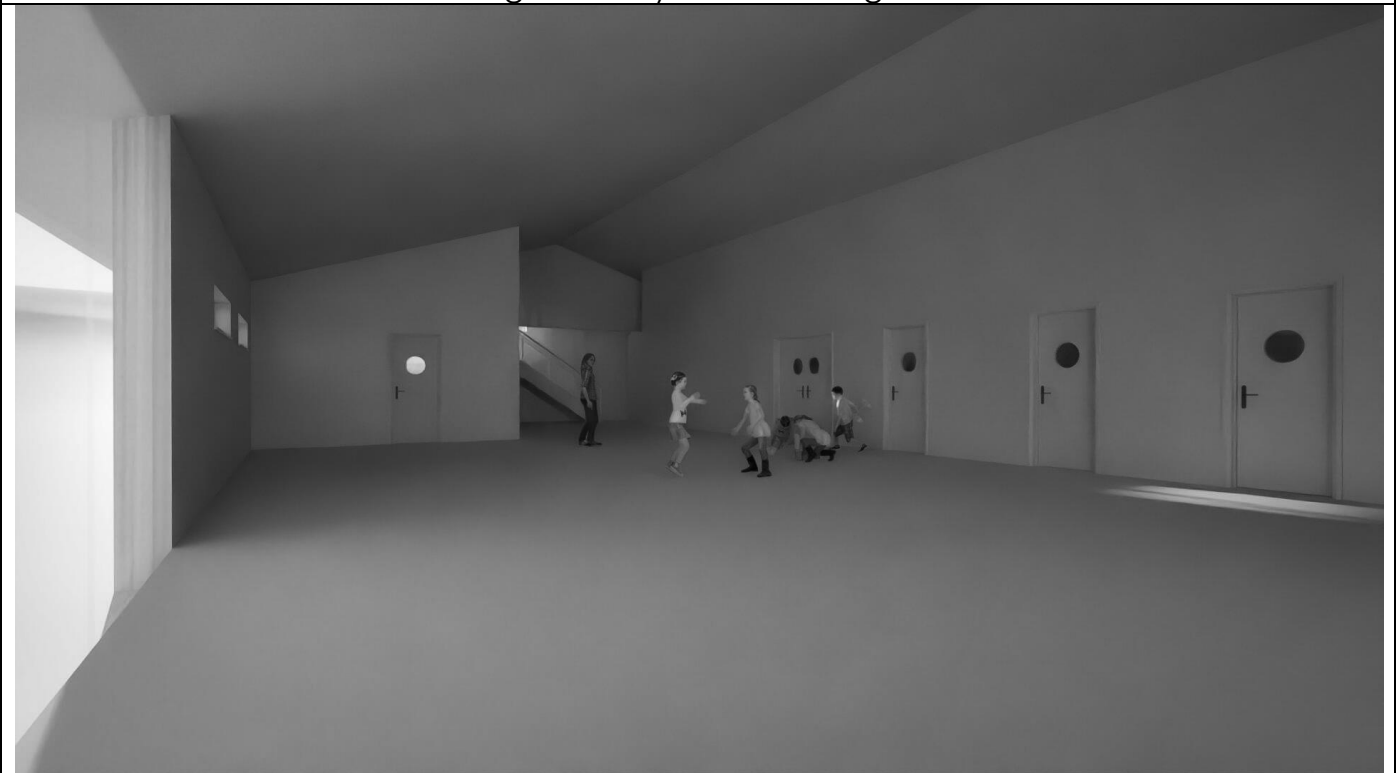


Image 4 – Play Area Looking In



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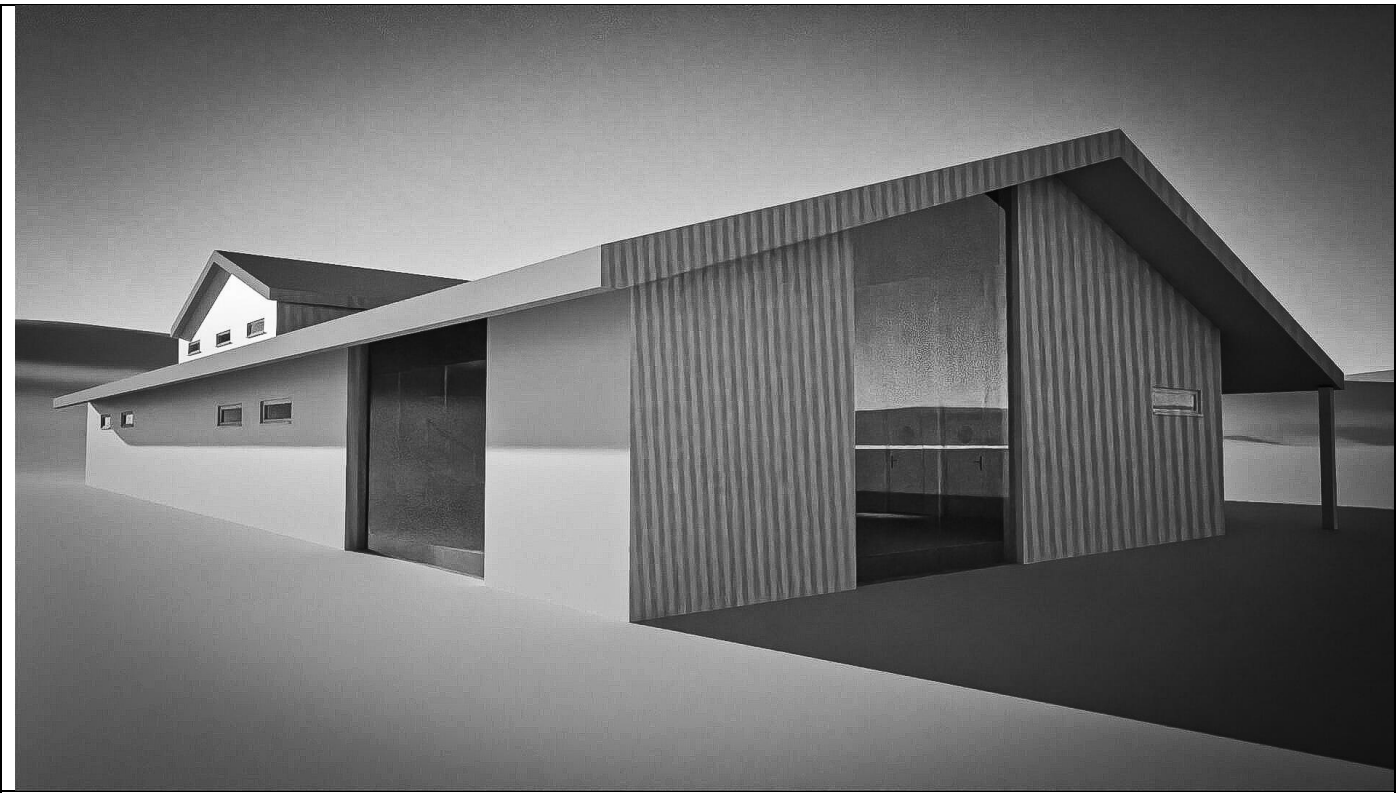


Image 5 – External View of Preschool




Image 6 – Internal View of Bar Area



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Image 7 – Internal View of Staff Area

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8. Conclusions and Recommendations

Design Option 2 provides some very attractive features (namely the views from the upstairs space). However, the additional circulation space required to accommodate the upper floor add to the overall building area, and therefore cost. The additional building elements required (namely the floor, lift and stairs) further contribute to the raised costs. Design Option 1 is therefore considered the better of the two options for the following key reasons:

- Lower estimated construction cost
- Greater opportunity to introduce environmental features
- Greater potential to personalise the individual building forms to suit their users

At this stage in the design programme, the two key risks identified are budget, and programme. The budgetary risk can be somewhat mitigated by the adoption of Option 1. However, there still remains a risk to the design programme due the number of decisions, and appointments, that will be required to prepare the design at Stage 3 in sufficient detail to apply for planning permission. It is advised at this stage that the following further appointments will be required for a successful outcome at planning:

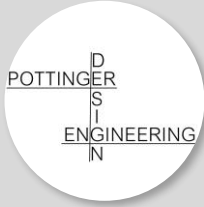
- Civil Engineering consultant to provide SuDS drainage design and calculations
- Environmental consultant to address BNG issues

While PDE Ltd can provide outline designs for these matters, there is a risk that the planning officer will require more detailed specialist input which may delay their decision while this is prepared. It is therefore recommended that quotes be sought for these appointments for these activities to be undertaken during Stage 3 as indicated on the programme.



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9. Design Programme



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10. Option 1 Drawings



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11. Option 2 Drawings