

# **London Development Agency**

Neighbourhood Nurseries Initiative

Overview Report and Research Project

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**Report by**

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## EXECUTIVE SUMMARY

From our review of Nursery projects for the London Development Agency our findings can be summarised as follows;

	<b>Construction costs £/m<sup>2</sup></b>	<b>£ / per place</b>	<b>Typical Build Programme</b>
New Build Stand Alone Nurseries	1,430-1,630	15,000-25,000	27-43 wks
New Build Projects as part of a larger development or school	1,250-1,630	13,600	30-35 wks
New Build Extensions	980-1,810	13,100	25-30 wks
Prefabricated Construction	900-1,650	8,100	15-20 wks
Refurbishment of Existing Buildings and Nurseries	480 – 1,750	7,650	15-20 wks

All costs contained in this report are based on outturn costs reported at the 3<sup>rd</sup> Quarter of 2004.

From our research other considerations to be taken into account when planning the development of a nursery development include;

- External works costs
- Professional Fees
- VAT
- Loose Fixtures and Fittings
- Inflation
- Land remediation such as clearance of ground contamination, demolition and asbestos removal.
- Contingency – we would recommend that a contingency is held (usually between 5-10% of construction cost dependant on the stage of the project).

Design will have a major impact on cost. Eco Design and design for feasibility will generally be more expensive.

It is essential to programme adequate time to the pre construction process for funding, planning, staff recruitment and design development prior to starting the construction works.

All nurseries should carefully determine whether they will be liable for VAT payments as this could add 17½% to the costs.

It is essential that lease agreements are confirmed before progressing with a new nursery.

It is essential that a sustainable business plan is developed to ensure the long term viability of any development. One finding from our analysis of projects to date is that smaller nursery projects with fewer spaces are difficult to manage cost effectively.

## 1.0 INTRODUCTION

This review is based on the information collected and analysed under the Neighbourhood Nurseries Initiative and provides a unique opportunity for the London Development Agency to increase understanding of costs and streamline future funding opportunities for Nursery School Development.

The objective is to:

- Provide all involved in the funding process with a better understanding of construction development cost especially where there may be little or no design information.
- Develop a detailed checklist of information required when undertaking funding reviews, to improve the funding process and enable quick responses to future funding applications.
- Support organisations involved in these types of projects in the pursuit of a “Best Practice” approach.
- Produce information in a format that could ultimately be incorporated into a Good Practice Guide.

In total, Gardiner & Theobald have to date reviewed 37 Nurseries for the London Development Agency under the Neighbourhood Nurseries Initiative. Construction costs (excluding VAT, fees and external works) range between £66,900 and £1,745,000 on these projects. To enable us to review these costs on a comparable basis it is necessary to look at each scheme on a rate per metre square. This is done by dividing the total construction cost of each project by the new area provided. Based on a cost per m<sup>2</sup>, costs vary considerably between £450 / m<sup>2</sup> and £1,810 / m<sup>2</sup> across the range of projects.

Another way of reviewing cost at this level would be to look at the number of spaces provided by the new development (£/space). Reviewing the projects on this basis, costs per nursery place provided range from £3,000/space to £22,400/space. There is a much greater range of figures when using this form of measurement compared

to reviewing the costs on a cost per square metre. This is because in some cases training/healthcare and other community uses have been included as part of the nursery development. Therefore £/space is probably a less accurate measure than £/m<sup>2</sup>.

It is important to note that all the above costs exclude the following which should be allowed for separately:

- Contingency
- External works
- Professional fees
- VAT
- Loose fixtures and fittings
- Inflation - all costs are what we would consider present day and do not account for price increases as a consequence of inflation
- Land acquisition and associated costs
- Site irregularities such as clearance of ground contamination, demolitions and asbestos removal.

From the studies undertaken it is possible to categorise the types of nursery developments as follows:

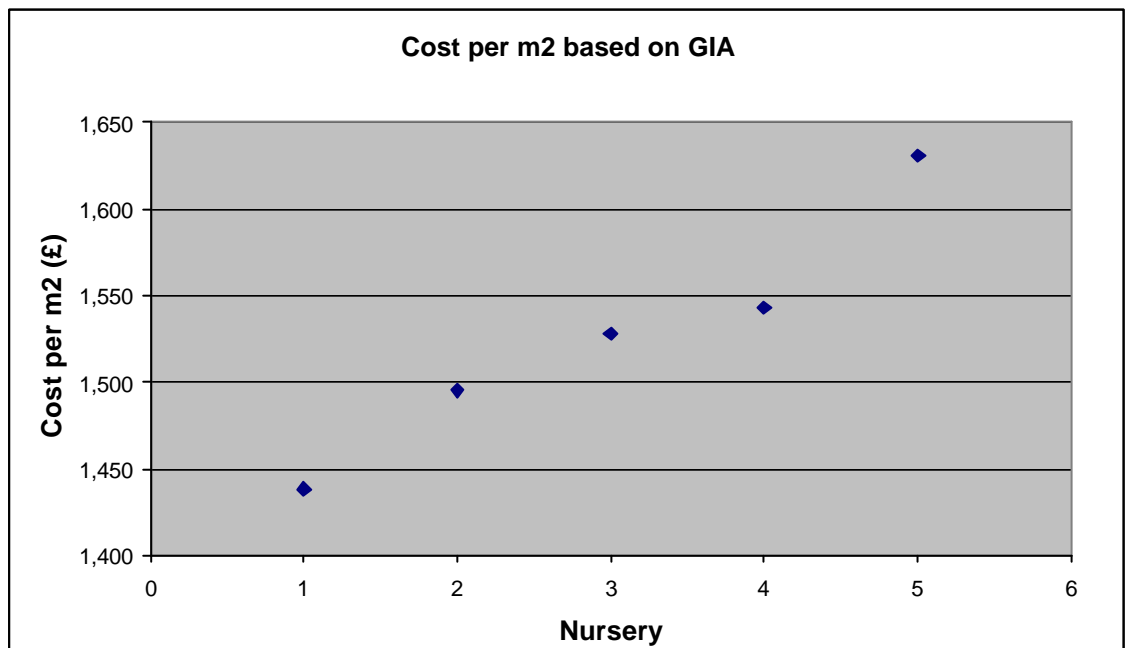
- New Build Stand Alone Nurseries
- New Build Projects as part of a Larger Development or School
- New Build Extensions
- Prefabricated Construction
- Refurbishment of Existing Buildings and Nurseries

We will now look at each of these categories in detail in the next chapter, to see if any trends in the data exist to enable us to obtain a good understanding of costs under the various headings.

## 2.0 NEW BUILD STAND ALONE NURSERIES

Out of the 37 Nurseries reviewed under the Initiative, a total of 6 (16%) can be classified as New Build Stand Alone Nurseries. The cost of these schemes ranged from £769,500 to £1,500,000 in total value, equating to £1,430/m<sup>2</sup> to £1,630/m<sup>2</sup> respectively (excluding external works, loose fixtures and fittings, professional fees and VAT) as shown in figure 2a. The average cost equated to £1,520/m<sup>2</sup>

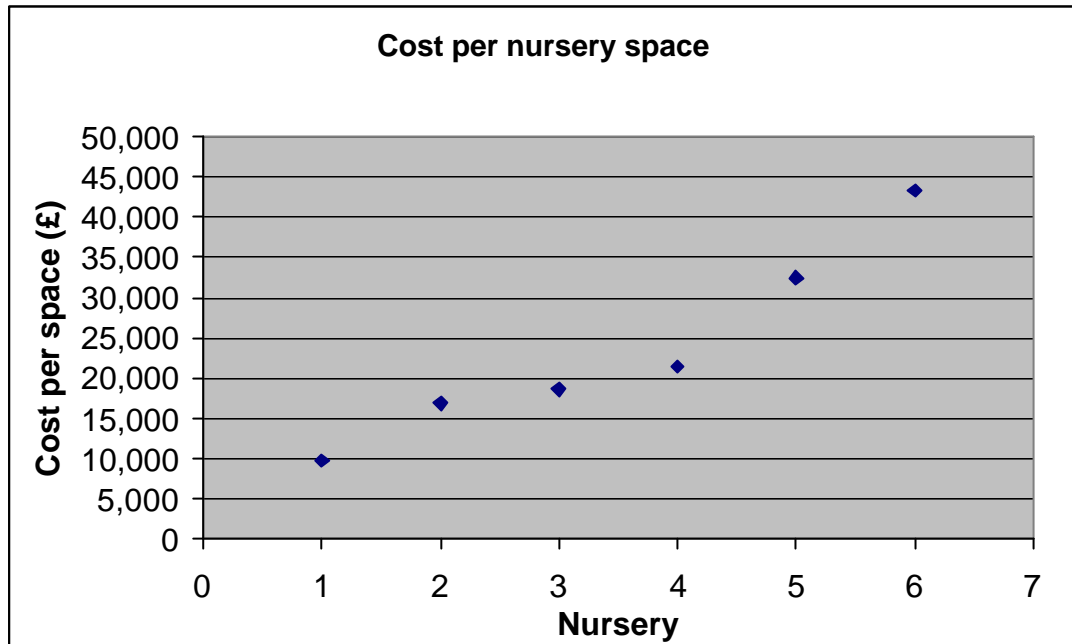
### 2.1 Cost per m2



**Figure 2a New Build Stand Alone Nurseries £/m2**

Gardiner & Theobald's data currently shows a range of £1,450/m<sup>2</sup> to £1,600/m<sup>2</sup> for other nursery schemes, backing up the findings from LDA funded nurseries.

## 2.2 Cost per place



**Figure 2b New Build Stand Alone Nurseries £/nursery space**

Between £15,000 and £25,000 per place appears to be typical for the nurseries in this study. The costs per place for this category of nurseries are higher than the other projects as they often include other facilities such as training and healthcare for local community use.

In addition trends suggest that loose fittings, furniture and equipment equate on average to 7% of construction cost. Gardiner & Theobald would usually cost FFE in schools at £100 to £140 per m<sup>2</sup>. External work costs equate on average to approximately 8% of total construction cost but will vary dependent on the external area. Gardiner & Theobald currently estimate costs for external works at between £115/m<sup>2</sup> and £130/m<sup>2</sup> based on area of new build.

## 2.3 Programme

Projects in this category range between 27 and 43 weeks to complete on site. This is purely for the construction phase of the works. It is important to understand that the entire programme from initial idea to finished nursery on site can last for a

number of years. Not only does the design need to be completed, but planning permission and funding approval also has to be gained before the contractor can start on site. The traditional stages of a project are listed below:

- Initial Concept
- Organise a Management Committee - preferably including people who have had experience of constructing a new building.
- Find appropriate site
- Business Plan required to determine how many spaces are required and to start the funding approval process
- Design Inception – appointment of design team and general approach defined
- Feasibility
- Outline Proposals
- Planning submission and approvals
- Scheme Design
- Detailed Design
- Production of Tender Information
- Tender
- Appoint Contractor
- Advertise Nursery Spaces
- Appoint Nursery Staff
- Construction Period
- Manage Snagging and Defects
- Install New Furnishings
- Open Nursery

This list is just a guide and not all projects will go through all the stages or in this particular order. It is important that a programme or checklist is developed from the start to ensure the project runs smoothly. It is also useful to put anticipated dates against each activity. We would recommend that at the outset Project Managers

draw up a timeline / Gantt chart as a tool for monitoring progress throughout the project duration.

Gardiner & Theobald have noticed in undertaking their role for the LDA that a lot of projects are in delay. It is our view that this is due, in most instances, to lack of time programmed for pre construction activities. This manifests itself in nurseries having funding taken off them, as they cannot meet budget profile deadlines for the programme. Gardiner & Theobald would recommend, an average period of two years prior to starting on site for pre construction planning.

It should be remembered that if a project is to start in two years time, then inflation will need to be added to costs, to take account of annual construction cost increases (see Chapter 7). In terms of cost, Gardiner & Theobald currently estimate Tender Price Inflation at 4.5% per annum. Therefore if the project were to take place in two years time, a further 9% would need to be added to costs at this stage.

## **2.4 Fees**

On average, we would expect 14-16% for construction professionals, this could include some or all of the following – Project Manager, Architect, Engineer (Structural and Services), Quantity Surveyor, Planning Supervisor and Landscape Architect.

## **2.5 Design**

New build stand alone nurseries tend to be more expensive than the other categories as they often include additional areas for training, healthcare and nanny outreach schemes.

Unusual 'one off' designs do tend to cost more than standard nurseries. Paradise Park is an example of an ecofriendly building which includes a green roof and recycles grey water. This may reduce running costs and is better for the environment, but initial capital costs will be higher than our average of £1,520 especially in green belt or conservation areas. To gain planning permission certain nurseries will need to be designed to "fit in" with the surrounding environment, these conditions may include environmentally friendly or sustainable items.

Other factors which could impact on cost:

- **Brownfield sites** - costs for ground remediation can be high, especially if there is presence of asbestos or ground contamination. There may also be a need to allow for demolition of existing buildings.
- **Access to site** – if access to site is difficult it will increase costs. Preliminaries will range from approximately 14% to 18%, depending on site access and ease of construction.
- **Security** – security requirements for nurseries have greatly increased recently. Therefore CCTV, secure entrances and secure passageways throughout the building, need to be included in the cost of the nursery.
- **Catering** – Many nurseries are now moving towards producing food on site so the cost for kitchen equipment has to be included in the budget. If there are a number of nurseries close together, savings can be made by producing all meals on one site and then transporting the food to the other nurseries.
- **External area** – it is important that nurseries can use both their indoor and outdoor areas. Ideally, nurseries should design for some covered external areas to enable the nursery to do outdoor activities whatever the weather.
- **Storage** – It is important that adequate storage arrangements / facilities are factored into the capital plan and the possibility of external storage areas should be considered. It has come to our attention that this item is often overlooked.
- **Disability Discrimination Act (DDA) requirements** – due to new legislation, nurseries must ensure they provide disabled access for children, parents and staff.
- **Special educational needs (SEN)** – providing for SEN will not normally increase the cost of building the nursery. However, it can increase the cost of loose fittings and furniture. In some cases cost of loose FFE per child is double for SEN compared to non SEN.
- **Access** – nurseries should consider carefully how people will travel to the nursery. Ideally, the nursery should be close to public transport routes, have suitable pathways for people coming by foot, stands for bicycles and parking

spaces for cars. The development of a Green Travel Plan is becoming more important especially on larger school developments.

- **Multistorey vs single level.** Multistorey buildings tend to be cheaper per m<sup>2</sup> than single storey buildings due to the shared foundations, roof etc. Multistorey buildings are also a good choice if land is scarce or expensive. However, the price of lifts will need to be included in the cost and decisions will need to be made as to how a multi-storey building can be managed.

## 2.6 Summary

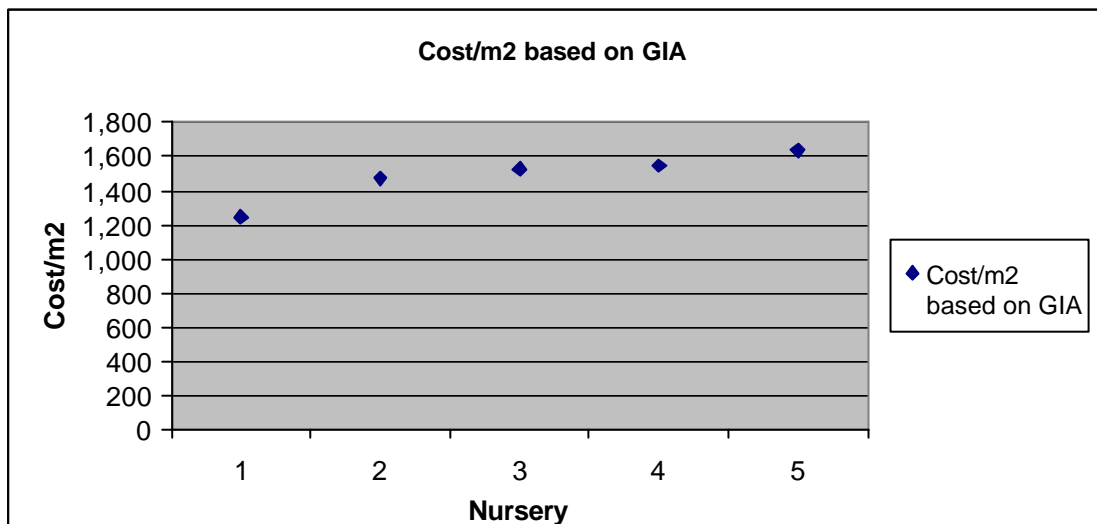
We have set out below typical cost build ups for New Build Stand Alone Nurseries using data from the projects. Typical nursery costs (£/m<sup>2</sup>) based on minimum and maximum figures are:

	<b>£/m<sup>2</sup></b>	<b>£/m<sup>2</sup></b>
	<b>Minimum</b>	<b>Maximum</b>
Cost per m <sup>2</sup>	£ 1,430	£ 1,630
Add for external works	£ 115	£ 130
FFE	£ 100	£ 140
Sub Total	<hr/> £ 1,645	<hr/> £ 1,900
Inflation (@ 4.5% p.a)	As applicable	As applicable
Professional Fees (14-16%)	£ 230	£ 300
VAT @ 17.5%	£ 345	£ 385
<b>Total</b>	<hr/> <b>£ 2,220</b>	<hr/> <b>£ 2,585</b>

### 3.0 NEW BUILD PROJECTS AS PART OF A LARGER DEVELOPMENT / SCHOOL

Out of the 37 Nurseries reviewed under the Initiative, a total of 8 (22%) can be classified as New Build Projects as part of a Larger Development. The cost of these schemes ranged from £1,250/m<sup>2</sup> to £1,630/m<sup>2</sup> (excluding external works, loose fixtures and fittings, professional fees and VAT) as shown in figure 3a. The average cost per m<sup>2</sup> equated to £1,490.

#### 3.1 Cost/m<sup>2</sup>



**Figure 3a New Build Nurseries as part of a Larger Development £/m<sup>2</sup>**

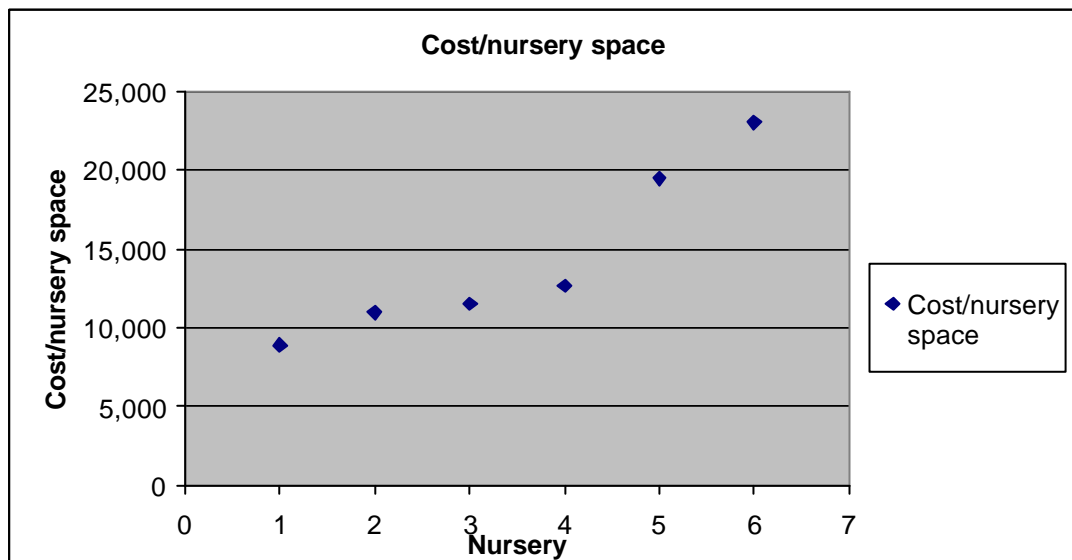
The total cost of the nurseries ranged from £338,000 to £1,267,000. Schemes in this section tend to be part of very large projects. This is good for economies of scale, but it can be more difficult to control cost. Fees can be high due to the inclusion of a full design team, a Project Manager, and the need for legal advice.

Most of the projects studied were to be part of an existing primary school, providing a seamless transition for the children between nursery and school. This also enabled the schemes to share facilities, for example, kitchens and car parks and enabled the parents to take their children to the same location.

Gardiner & Theobald have undertaken a number of schemes on this basis for the London Borough of Waltham Forest and the London Borough of Newham. These schemes have ranged in cost between £1,450/ m<sup>2</sup> and £1,550/m<sup>2</sup>.

In this category especially, it was seen how important it is to have people on the committee who have experience of construction. This was demonstrated at Mudchute nursery where local experience and skills were used to construct the building. This experience helps to ensure that the design fits the requirements. This is especially important, as changes to the design later in the process will be expensive and tend to cost more money the later in the design and construction process they are made. Involvement of the local community can also help ensure that there is a high uptake of nursery places and increases community pride in the scheme which can result in a decrease in vandalism to the building.

### 3.2 Cost/place



**Figure 3b New Build Nurseries as part of a Larger Development £/place**

On average, nurseries in this sector equated to an average cost per place of £13,600. This is far lower than for stand alone nurseries due to a number of factors. Firstly, if one contractor is appointed to build the whole development there will be a

number of economies of scale. Secondly, nurseries in larger developments tend to be built purely for nursery care and do not include as much additional space for training and healthcare as was seen in the stand alone nurseries. Finally, the nurseries in this section were found to be of a generally simpler design than some of the nurseries in the new build stand alone category. Overall Gardiner & Theobald see this option as providing good value at least risk; therefore providing better cost certainty.

### **3.3 Programme**

On average, build on projects as part of a larger development took 30-35 weeks. The projects that Gardiner & Theobald have been involved with for the London Borough of Waltham Forest and London Borough of Newham tend to be approximately 56 weeks in duration for a 2FE Primary school with a total area of approximately 2800m<sup>2</sup> with early years accommodation. One option available is to phase such works, for example, West Silvertown School Nursery (London Borough of Newham) was subject to Sectional Handover before the main contract works.

### **3.4 Fees**

On average, fees equated to 17% of construction cost.

### **3.5 Design**

In summary, design tends to be simpler to fit into the overall 2FE Primary School Proposals and offers good value at £13,600 per place.

### 3.6 Summary

Set out below are typical cost build ups for New Build Stand Alone Projects as Part of a Larger Development. Typical £/m<sup>2</sup> based on minimum and maximum figures are:

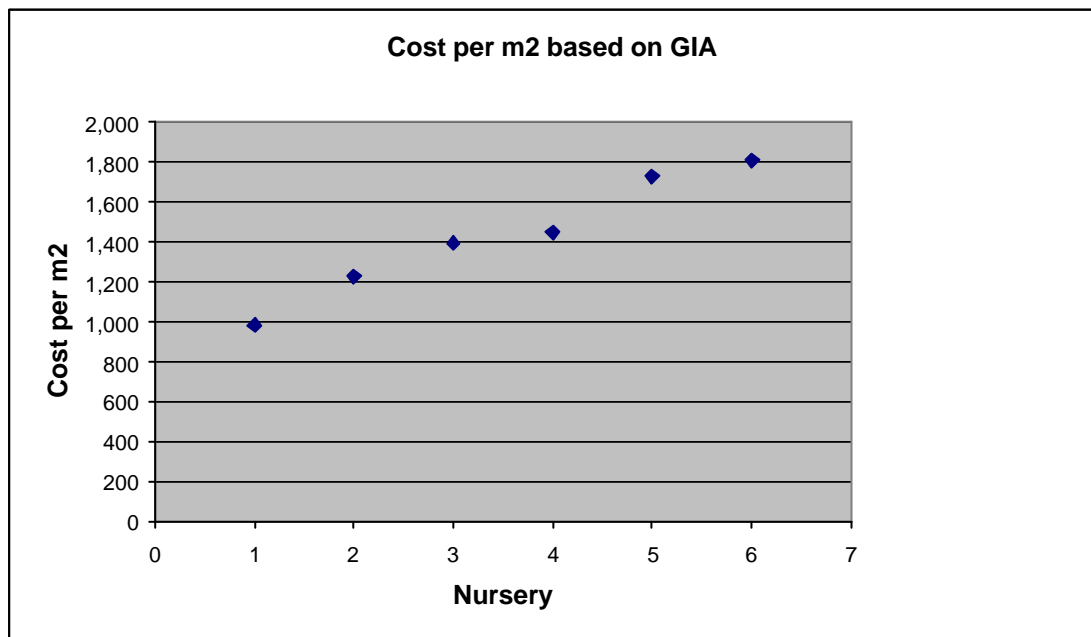
	<b>£/m<sup>2</sup> Minimum</b>	<b>£/m<sup>2</sup> Maximum</b>
Cost per m <sup>2</sup>	£ 1,250	£ 1,630
Add for external works	£ 115	£ 130
FFE	£ 100	£ 140
Sub Total	£ 1,465	£ 1,900
Inflation (@ 4.5% p.a)	As applicable	As applicable
Professional Fees (@ 14-16%)	£ 205	£ 305
VAT @ 17.5%	£ 295	£ 385
<b>Total</b>	<b>£ 1,965</b>	<b>£ 2,590</b>

#### 4.0 NEW BUILD EXTENSIONS

Out of the 37 Nurseries reviewed under the Initiative, a total of 7 (19%) can be classified as New Build Extensions. The cost of these schemes ranged from £980/m<sup>2</sup> to £1,810/m<sup>2</sup> (excluding external works, loose fixtures and fittings, professional fees and VAT).

The total construction costs varied from £123,000 to £1,745,000. Costs vary greatly in this category as projects can differ considerably in scope and size, from simple additional rooms to multi-storey extensions. The smallest extensions equated to the highest cost per m<sup>2</sup> as would be expected. Frequently, nurseries combined the construction of extensions with improving the external areas resulting in high percentages on external works.

#### 4.1 Cost per m2



**Figure 4a New Build Extensions £/m2**

The average cost per m<sup>2</sup> equated to £1,430/m<sup>2</sup>. External costs equate, on average, to 13%, which is higher than average due to the nature of the work involved. FFE costs equate on average to 9%.

## **4.2 Programme**

On average, nurseries in this category took 25-30 weeks to build. For the size of projects, the programme on these particular projects appears quite long, this is due to the fact that works can be disruptive and need to be programmed around maintaining use of the nursery.

## **4.3 Fees**

Fees on average equal 18%. This is higher than expected and depends on the size and design of the extension.

## **4.4 Design**

One of the nurseries in this category has services for children with SEN. The construction cost per m<sup>2</sup> of this nursery is not higher than the other nurseries. However, FFE equates to 18% of the construction cost which is much higher than the other nurseries within this category.

#### 4.5 Summary

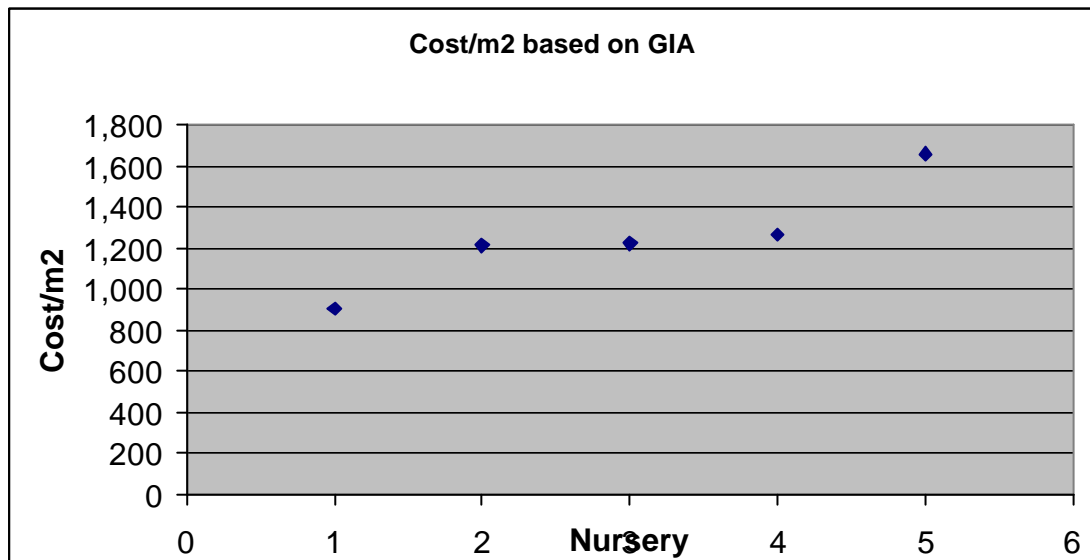
Set out below are typical cost build ups for New Build Extensions. Typical £/m<sup>2</sup> based on minimum and maximum figures are:

	<b>£/m<sup>2</sup> Minimum</b>	<b>£/m<sup>2</sup> Maximum</b>
Cost per m <sup>2</sup>	£ 980	£ 1,810
Add for external works	£ 115	£ 130
FFE	£ 100	£ 140
Sub Total	£ 1,195	£ 2,080
Inflation (@ 4.5% p.a)	As applicable	As applicable
Professional Fees	£ 215	£ 375
VAT @ 17.5%	£ 245	£ 430
<b>Total</b>	<b>£ 1,655</b>	<b>£ 2,885</b>

## 5.0 PREFABRICATED CONSTRUCTION

### 5.1 Cost/m<sup>2</sup>

Out of the 37 Nurseries reviewed under the Initiative a total of 6 (16%) can be classified as Prefabricated Construction. The cost of these schemes ranged from £900/m<sup>2</sup> to £1,650/m<sup>2</sup> (excluding external works, loose fixtures and fittings, professional fees and VAT) as shown in Figure 5a.



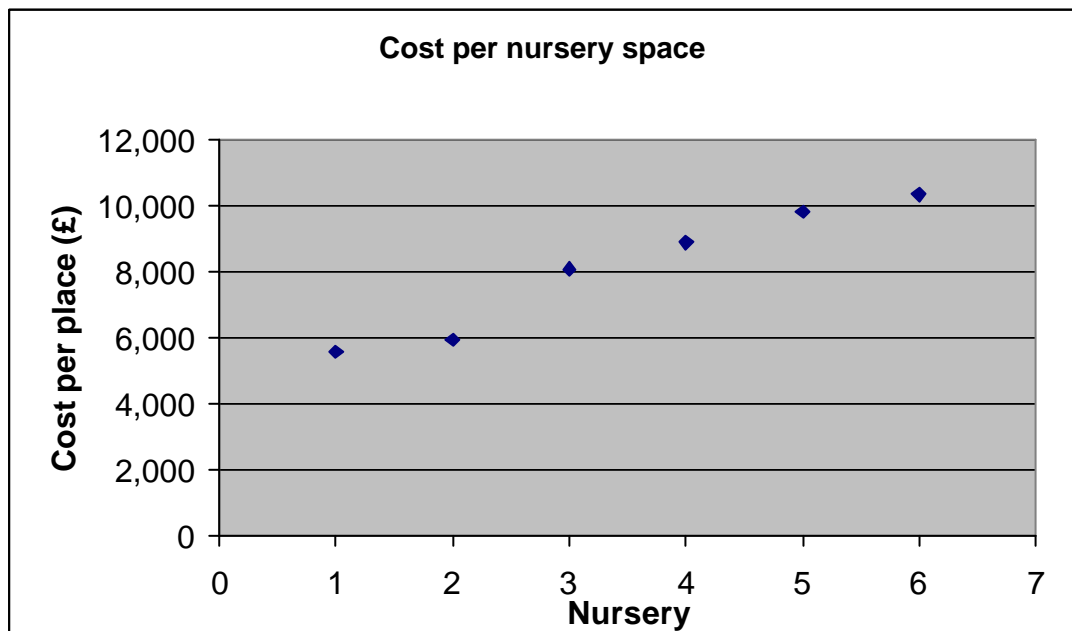
**Figure 5a Prefabricated Nurseries £/m<sup>2</sup>**

The total construction costs varied from £66,900 to £566,500. There is a large variation of size in this category from 55m<sup>2</sup> to 490m<sup>2</sup>. The nurseries in this category are generally cheaper and quicker to build than the other categories. It is also easier for the nursery staff to specify what they require and understand what the final product will look like.

In the past prefabrication has had a bad name in the press for being bland and having a short life expectancy. Life expectancy on such developments has greatly increased over recent years and they now offer a real alternative to traditional construction methods.

Leaside Regeneration, in conjunction with a group of local architects and Bow Childcare Ltd, are currently working on a study of prefabricated nurseries. Their intention is to design a standardised prefabricated “Ford Car” of nurseries, that would hopefully result in a significant capital cost saving and provide increased flexibility and quicker build time for the nursery providers. The designs are still in their early stages and use recycled shipping containers to provide the frame for their buildings. Their intention is to be able to produce a 60 place nursery for £400,000 (£6,700 per place). The design is based on a cluster of containers placed under a large tent like structure to provide covered external play area for the children. Unlike other modular builds, it is hoped that these nurseries will be built to last for 50 years. The recycled containers have already been used to produce an office complex in East London.

## 5.2 Cost/place



**Figure 5b Prefabricated Nurseries £/place**

The average cost per place is £8,100 for the nurseries studied. This is much lower than the other new build schemes.

In prefabricated projects the external work, on average, equates to 8%, loose furniture and fittings, on average, equates to 12%. This is because FFE costs for prefabricated buildings tend to be the same as new build projects, but because the build costs are cheaper the FFE is a higher percentage.

### **5.3 Programme**

The average build for a prefabricated nursery was 15-20 weeks. This is much quicker than the new build nurseries. The main determinant of programme is how long it takes the company to prefabricate the module and whether the manufacturers currently have the spare capacity to build the modules. This means that the nursery can be up and running in a much shorter timescale than on a traditional build.

### **5.4 Fees**

Fees on average equate to 3% of total construction cost. Fees are low on prefabricated design as little design input from an Architect or Engineer is required. Instead, the nursery is able to pick a ready designed module “off the shelf”. A Project Manager is also not normally required, as the procurement and installation of a modular build is far simpler than a new build facility. This offers a significant saving over traditional forms of construction, where fees of 16%, can be expected.

## 5.5 Summary

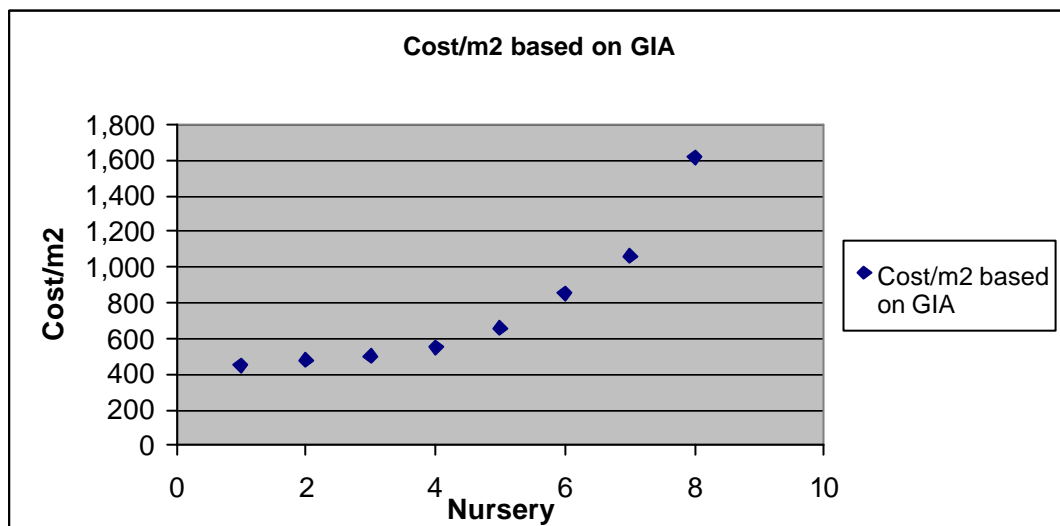
Set out below are typical cost build ups for Prefabricated Nurseries. Typical £/m<sup>2</sup> based on minimum and maximum figures are:

	£/m <sup>2</sup> Minimum	£/m <sup>2</sup> Maximum
Cost per m <sup>2</sup>	£ 900	£ 1,650
Add for external works	£ 70	£ 130
FFE	£ 110	£ 200
Sub Total	<u>£ 1,080</u>	<u>£ 1,980</u>
Inflation (@ 4.5% p.a)	As applicable	As applicable
Professional Fees (3%-10%)	£ 35	£ 200
VAT (@ 17.5%)	£ 195	£ 380
<b>Total</b>	<b><u>£ 1,310</u></b>	<b><u>£ 2,560</u></b>

## 6.0 REFURBISHMENT OF EXISTING BUILDINGS AND NURSERIES

Out of the 37 Nurseries reviewed under the Initiative, a total of 10 (27%) can be classified as Refurbishment of Existing Building. The cost of these schemes ranged from £480/m<sup>2</sup> to £1,750/m<sup>2</sup> (excluding external works, loose fixtures and fittings, professional fees and VAT) as shown in Figure 6a. The total construction costs varied from £105,000 to £524,700.

### 6.1 Cost/m<sup>2</sup>



**Figure 6a Refurbishment of Existing Buildings and Nurseries £/m<sup>2</sup>**

The average cost of projects in this category was £770/m<sup>2</sup>. This is the lowest out of all the categories. Costs depend very much on extent of refurbishment required. While overall costs may be lower, the cost overruns tend to be more commonplace, as the risks are usually higher. Elements such as asbestos removal and amount of refurbishment particularly in relation to mechanical and electrical works needs to be established early on to provide cost certainty.

## **6.2 Cost/place**

The average cost per place is £7,650. Again this is the lowest of all the categories. External works equate on average to 7%, FFE equate on average to 18%. FFE costs are high as a percentage of construction costs as there is little new construction taking place and instead the majority of furniture is replaced.

## **6.3 Programme**

The average build takes 15-20 weeks. The programme is dependent on the extent of refurbishment taking place. Obviously if services are to be replaced, the programme will be longer. In addition, the removal of asbestos can greatly increase the programme period on refurbishment projects. It is essential good practice that time should be taken to produce detailed surveys of existing building services and structure.

## **6.4 Fees**

Fees on average equate to around 14-16% of total construction cost. Gardiner & Theobald would expect design fees to be higher on refurbishment works. For example, it is usual to find Architects fees some 4% above those on new build projects.

## **6.5 Design**

Types of projects in this category vary from buildings which have been derelict, burnt, occupied by squatters, to simple redecorating and new furniture. The existing buildings varied from stone churches to prefabricated nurseries.

Some buildings were currently being used as nurseries whereas others had been derelict for a number of years. If the nursery was in use, they had to determine whether they would have to rent another space whilst the work was taking place which would increase costs.

In some cases, it could be argued that it would cost the same to build a new nursery as it is to refurbish an existing building. This is especially true in buildings which

need extensive repairs. Therefore, the most cost effective solution should be determined from the beginning.

### 6.6 Summary:

Set out below are typical cost build ups for Refurbishment Nurseries. Typical £/m<sup>2</sup> based on minimum and maximum figures are:

	<b>Minimum</b>	<b>Maximum</b>
Cost per m <sup>2</sup>	£ 480	£ 1,750
Add for external works	£ 115	£ 130
FFE	£ 100	£ 140
Sub Total	<u>£ 695</u>	<u>£ 2,020</u>
Inflation @ 4.5% p.a	As applicable	As applicable
Professional Fees (@16-20%)	£ 110	£ 405
VAT @ 17.5%	£ 140	£ 425
<b>Total</b>	<b><u>£ 945</u></b>	<b><u>£ 2,850</u></b>

## 7.0 CONSTRUCTION COST INFLATION AND LOCATIONAL EFFECT ON COST

When undertaking any development, it is important to look at the programme period and exactly when the development is due to take place, as costs will increase annually with inflation.

Gardiner & Theobald LLP has developed, over several years, its own approach to the problem of forecasting the trends in construction tender prices – The G&T Tender Price Indicator (TPI). The TPI has created a powerful and responsive tool for forecasting purposes by combining three ingredients,:

- the contribution of state-of-the-market information by those at the workplace of the industry, the contractors and specialist sub-contractors.
- analysis of macroeconomic indicators, coupled with the experienced professional judgement of our senior people, and
- a series of computerised cost models for differing types of projects.

Twice a year Gardiner & Theobald send out questionnaires to chosen contractors based all over the United Kingdom, to gather data on actual and forecast tender price change for 29 different elements of construction, for example, cladding, masonry and suspended ceilings. Responses are reviewed to explain and/or eliminate apparent inconsistencies and analysed figures are moderated to reflect our own tendering experience and Partners' views on market conditions.

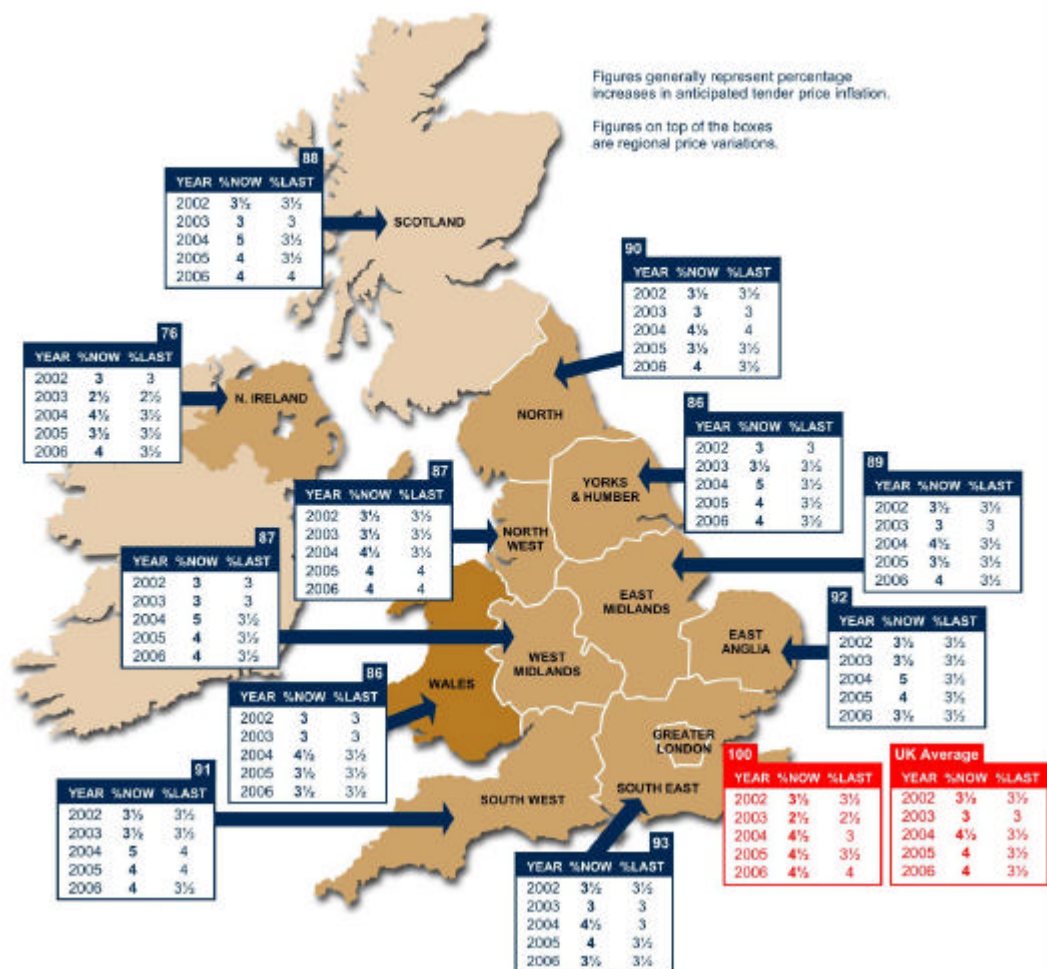
An in-house 'desktop survey' is undertaken for the interim quarterly reviews where recent tenders and the experience and views of Partners are considered before the TPI is finalised and confirmed for the relevant quarter.

At each quarterly review, individual element projections are modelled to give the overall percentage adjustment for each regional area and as an average forecast.

All costs contained within the report are based on reported outturn costs as at the 3<sup>rd</sup> Quarter 2004.

## 7.1 Location Effect

All projects reviewed are within the Greater London Area. Gardiner & Theobald would therefore consider that costs of building are similar on all projects from an input cost point of view in this instance.



**Figure 7a**

However, moving out of this location would suggest that prices vary by regions based on Gardiner & Theobald latest Tender Price Indicator dated 3rd Quarter 2004 (see Figure 7a above). This shows cost variations for regions as a percentage of London Construction Costs. As an example, we would expect the cost of construction in the South West Region to be 91% of those in Greater London.

Figure 7a also shows predictions for Tender Price Inflation. It is important that Tender Price Inflation is factored into any proposed development cost. This is especially necessary in the area of Nursery Development where the period between initial concept / feasibility and actual start on site could easily be two years. As can be seen in Figure 7a, the effect of Tender Price Inflation in the London Area over 2005 is estimated at 4.5%. Therefore a project starting in December 2005 is likely to be 4.5% more expensive than one starting in January 2005.

## 8.0 PROFESSIONAL TEAM

There is no hard or fast rule to appointing a professional team. The process of building involves a series of different specialists contributing to the project at different times, all of which have widely differing skills. Construction projects require a huge number of decisions which, as we have found in the report, all need to be made at the right time to avert delaying the project.

Gardiner & Theobald have found that in the most successful nursery projects a full time 'project champion' representing the Client's organisation is required to service the project organisation. This helps in the identification of requirements and refinement of problems with the design teams or Architect to find an optimum solution which offers the best value.

From the projects reviewed it is apparent that a number of factors will affect the choice of the project team. These include:

- The size of the scheme. The smaller schemes may not require/warrant full design team services. From a practical point of view the cost of a full design team on smaller projects may mean that they never get off the ground as this puts further pressures on funding
- Project leaders experience of the construction process also has a bearing on the choice/composition of project teams

The accepted role of the Architect has long been to design the building, advise on the selection and appointment of other consultants, manage the design, select and appoint the contractor and/or subcontractors, and generally represent the client's interest as far as possible (Murdoch & Hughes, 2003).

In essence the Architect takes the Client's brief and uses design skills to develop a three-dimensional interpretation which other designers use as the basis for their own work. As on any project the formative or concept design stage is both interactive and iterative between the many design disciplines as well as between the Architect and

the Client. The input from the Structural and Services Engineers, for example, can often have a strong influence on the eventual design solution.

A successful outcome to the design process is often determined by the choice of starting point in relation to the definition of the client's problem. Assessing the level at which to start is important and is a matter of fine judgement. It requires a clear definition of the boundaries surrounding the problem, as starting at too low a level may lead to a misunderstanding of the real issues. For example, a designer trying to design a Nursery must know how many spaces are to be provided.

This can be difficult because:

- The search for the perfect solution is potentially endless
- There is no infallible process or solution
- The process involves finding as well as solving problems
- Design inevitably involves subjective value judgements
- There is no simple scientific approach to solving the design problem
- Designers work in the context of a need for action, but this requires the additional focus of prioritisation to the project delivery objectives

Gardiner & Theobald would therefore suggest that the most important decision is the appointment of the Architect and have set out below a checklist for design selection to allow analysis of the four key capabilities of the design organisation:

- Its experience of designing similar projects
- The experience and background of the people nominated for the project
- The organisational resources and management systems
- The financial resources of the organisation and its ability to support the project.

Gardiner & Theobald would recommend talking to a friendly construction professional for advice at the earliest opportunity for opinions and views, even if the project is some two years away from commencing construction.

A planning supervisor will have to be appointed if the project is notifiable. (see Construction Design Management Regulations 1994).

CDM regulations came into effect in 1994 to improve the construction industry's safety record by involving in health and safety all participants in the construction process. It is the duty of the Client (ie nursery operator) to;

- Appoint a competent Planning Supervisor and a Principal Contractor
- Give the Planning Supervisor all information regarding the site
- Ensure that the Project has adequate resources and time to result in a safe working environment
- Make available the Health and Safety file.

It is the Planning Supervisions duty to:

- advise the client on the adequacy of time and resources allocated to the project
- Ensure that the project design will result in the safe schedule
- Coordinate the design team health & Safety contributors
- Ensure that the Health & Safety Plan and file are prepared and that the file is delivered to the Client upon Completion.

## **9.0 DESIGN**

Design has a major influence on cost. Eco Designs and designs for sustainability will generally be more expensive. From the projects reviewed we would consider Paradise Park nursery to be an Eco Design. These tend to be between £100/m<sup>2</sup> and £120/m<sup>2</sup> more expensive than a standard design and approximately £360/m<sup>2</sup> more expensive than prefabricated units. It is however important that each project and its location is considered on its own merits i.e. certain locations may necessitate a certain design. It is therefore important that the nursery consider what they intend to achieve in terms of design from day 1 and budget accordingly as this will greatly influence the outturn cost.

## **10.0 CONTINGENCY**

All costs within the report are outturn costs as at the 3<sup>rd</sup> Quarter 2004. Gardiner & Theobald LLP would recommend that a contingency is held on construction costs in all capital plans. We would suggest that this should be between 5% and 10% (of total construction cost) dependant on the information available and risk profile of the project. As the project progresses this allowance should be reviewed and reduced according to outstanding information and risks.

Once the construction works commence we would recommend that a contingency of between 35% is held either by the client or within the contract to cover any unforeseen expenditure throughout the contract period.

## **11.0 PROGRAMME**

The construction period can vary from 15 weeks to 50 weeks depending on the size and complexity of the nursery. Pre fabricated buildings tend to have the shortest construction period as most of the work is completed off site. It is important to remember that the construction period is only a small section of the whole process to completion a new nursery. The time between the initial concept of a fully

functioning new nursery can take upwards of two years. Those involved in procuring a new nursery should ensure that they have programmed adequate time to organise funding, planning permission, staff recruitment, design development, etc. Ideally a checklist with target dates should be drawn up to aid the whole process.

## 12.0 LOCAL INVESTMENT/FUNDING STREAM

Funding for the nurseries in this study came from an extensive range of sources as well as the LDA:

- New Opportunities Fund (National Lottery)
- Neighbourhood Nurseries Initiative
- Sure Start
- Bank Loans
- Children's Centre
- Church Funds
- Day Centres
- DFES
- Early Years Improvement Budget
- Feed Challenge
- Housing Associations
- Local Authority Gap Funding
- Neighbourhood Renewal Fund
- New Deal for Communities
- NHS
- Primary Care Trust
- Section 614
- Single Regeneration Budget
- Standard 316

### 13.0 VAT

All nurseries should carefully determine whether they will be liable for VAT payments as where a recipient is unable to recover VAT it will become a real cost. Some schemes may be zero rated regarding VAT, but this should not be assumed. Where an organisation is 'zero' rated it will be able to recover VAT. Where an organisation is VAT 'exempt' it will be unable to recover VAT costs, thus VAT will become a real cost and should be accounted for when budgeting total development costs. Where standard rating applies VAT is applied at 17.5%.

Various parts of the works may be zero rated when the rest are standard rated such as disabled facilities. Gardiner & Theobald would recommend that professional advice is sought to:

1. Assess the VAT position of the Nursery
2. Review intended project
3. Judge extent of works zero rated (report to Customs & Excise)
4. Agree Final Position (report to Customs & Excise)

The March 2005 Budget announced that there would be a refund on VAT incurred by local councils on Children's Centres.

## **14.0 LEASE AGREEMENTS**

It is essential that lease agreements are confirmed before progressing with a new nursery. At least two nurseries in this study were eventually not constructed due to problems with the lease. In one case the lease had been increased by 200% and another leasehold only gave the nursery 10 guaranteed years. It is important that nurseries are supported by their local councils to ensure they receive fair and sustainable leases.

## **15.0 BUSINESS PLANS**

In order for the nursery to be sustainable, a business plan needs to be developed to demonstrate how the nursery will cover its operating costs, both in the long and short term. It was noticed that some of the nurseries in the study had concentrated entirely on the capital funding, giving little attention to running costs once the nursery was complete. Within the Business Plan, allowances must be made for periodical redecorating/refurbishing of the nursery in order to maximise the quality of childcare provided.