

## KINDERGARTEN BUILDING COSTS

### A DISCUSSION PAPER - B.ELLIOTT N.Z.F.K.U. EXECUTIVE

In recent years it has become apparent to various associations that the building costs of kindergartens has escalated dramatically and this is bringing serious concern to association members.

As a registered Architect it has long been my personal view that the move away from using private Architects by associations to, in most areas, a dominance of board control has not only led to a serious loss of real say in the way our kindergartens are put together but also may be contributing to the cost escalation.

Building prices have, of course, escalated dramatically generally. In recent years building cost increases have exceeded general inflation by between 2% and 5% per year. However the general impression gained by me from comment from Associations was that building costs of kindergartens seemed to be zooming up at a greater rate than other buildings.

Following discussion on this matter at NZFKU executive, I began to set about attempting to find:

- (a) if kindergarten buildings costs were higher than other similar buildings.
- (b) if private architects designs produced any less cost.
- (c) if Education Board procedures were causing any extra cost additions.
- (d) if standard designs by Boards could be any more economic within the Building Code.
- (e) could there be areas of the building code that could be made less cost additive without a loss to kindergarten standard.

As you can imagine, this is a vast exercise and consequently I have yet to provide satisfactory answers to all the questions, I have however produced some interesting information and this paper is to convey to you that information and my personal comments on the various issues raised above.

### GENERAL KINDERGARTEN COSTS:

The kindergarten building is by its nature an inexpensive building. It is usually of simple domestic construction, generally one big space with simple subdivided smaller areas, a relatively low services content and generally simple finishes. On the other hand we as associations tend to seek and get higher quality finishes, fixtures and external works than is absolutely necessary under the code.

A comparison with residential building costs indicates that an average New Zealand kindergarten should be approximately the same cost as an average New Zealand house.

Kingston & Partners - registered Quantity Surveyors, advise that the cost per square meter of the South Auckland P.S. 30 plan as at June 1982 was \$560.00. The New Zealand Building economist lists the June 1982 average better house cost as follows:

Auckland	491
Waikato B.O.P.	510
M.HB,T.W.	521
Wellington	590
CHCH	510
Otago - Sth I.	532

PS40 plans would drop in average cost per square meter to approximately \$530.00. Let me stress here the costs shown above for kindergartens are estimates by a Registered Quantity Surveyor of what they should cost not necessarily what they are costing us, this is further discussed under Board Control below.

Clearly then, we are not dealing in an expensive building as compared with other similar structures, in fact, it is my view that the nature of kindergarten space is such that with imaginative design our buildings could be relatively economic.

#### PRIVATE ARCHITECTS VERSUS BOARD:

With the least amount of self interest I can muster, I have tried to look objectively at this particular aspect.

It is clear to me that historically the Department had no option but to push the use of the Board's Offices upon us. In the late 60's and early 70's, a large amount of kindergarten building was undertaken, in the main our associations just did not have the expertise or experience to engage their own architects and I consider that the use of the Boards advice for small associations has been invaluable. However, in recent years with the number of new kindergartens dwindling, the use of the Boards Services, accept where asked for by an association, is in my view questionable. I do not wish to criticise the Boards' staff in any way however, I would observe that in the main the Boards' staff would be dealing with school buildings of a much larger scale than kindergartens and of course dealing in the main with their own buildings not someone elses. It is also clear that the Boards staff attitudes to kindergartens differs markedly throughout the country, for example, I cannot stress enough how fortunate enough the movement in the lower North Island has been to have one of our life members as the Wellington Board Architect, a comparison of designs, costs and attitudes with most other boards clearly shows an amazingly higher standard in all areas. On the other hand, my own experience with the Wanganui Board and reports from some



other associations indicates that in some cases little or no notice is taken of us - the clients - the ones with the real experience in kindergartens. Clearly the use of private Architects would put all the responsibility onto associations. Most of the larger associations could handle this with ease, smaller associations I believe could use the assistance <sup>for</sup> ~~for~~ their larger neighbours, or of course we could move to area administration and all have the ability to cope with the responsibility.

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It is interesting to note that the Wellington Board has continued to allow the use of private architects in many instances with outstanding results, however I would venture to suggest that as the work load on school projects drops, then pressure may be brought to bear on Boards' Management to retain all the work it can within the Boards.

In regard to buildings costs, I can find little evidence to suggest that a design of a private architect would cost less than a standard Board Plan. However the kindergartens that I have seen around the country certainly seem to my mind, to be better suited to their environment than a standard Board Plan would have been. It is in the area of contract management that I believe a private Architect could save on the building and this is discussed more in the next section.

#### TENDER PROCEDURE AND CONTRACT MANAGEMENT

It is in this area that my investigations have shown the most serious anomalies. Again, I must stress that no criticism of individual staff of Boards is implied or intended, merely that the system under which they work seems in some way to be disadvantageous to kindergarten associations.

It is extremely difficult to justify the above observation with anything more than heresay comment and broad generalisations. It is also difficult to make the comments with any sureness that they apply to all Boards, however I have carried out the following research that clearly shows there is a definite problem.

Two buildings built in the Wanganui Board area were taken as examples, both relatively recently constructed and both managed contracturally by the Board.

1. Cloverlea Kindergarten - Grade 0 - completed end 1979  
Manawatu Association.
2. Hunterville Pre-School Base - completed early 82  
South Rangitikei Association

I obtained the services of Messrs Kingston & Partners, Registered Quantity Surveyors, who using the working drawings for both buildings measured the material and labour involved and arrived at open market estimates as at June 1982.

I then took the known building costs of the buildings and

updated those costs using the B.I.A.C. Building cost index figures to arrive at comparison figures, the results are:

Cloverlea Kindergarten - open tender estimate	100,741.00
- board tender	113,563.00
Huntermville unit - open tender estimate	12,600.00
- board tender	15,133.00

Of course, in building as in any other free market industry, the laws of supply and demand will effect actual tender costs, however in both these cases the general building work load of the industry at the times of tender was not great and in fact the market conditions should have produced highly competitive tenders.

One can I guess, make figures say what you want them to say, however in these two cases at least the discrepancy between the figures (12.73% greater on Cloverlea and 20.1% on Huntermville) are sufficient to suggest some problem exists.

Although I am aware that several tenders were received on the Huntermville project, only one tender was received on the Cloverlea project.

Although again I am loathe to generalise it is apparent from these results, other tender situations involving kindergartens and the knowledge that builders in the main regard Board works as "plum" jobs, that Board managed tenders are attracting a premium rate above that of the norm.

A further matter that I feel needs some comment is the failure of some boards to allow the associations to be involved at the tender decision stage. As a professional in this area, I can see valid points in suggesting that in the main, associaton personnel would not be able to add anything constructive, however I can also see, again professionally, that to not allow association people to take part further reinforces the suggetion that there is perhaps something to hide.

#### STANDARD BOARD PLANS

I should commence this area by saying that I can see no benefit at all, and perhaps some harm, to the movement in having standard plans for kindergartens, especially when the total number of kindergartens to be built annually is only 4. Perhaps when we were building 20 or so kindergartens around the country annually then perhaps, and I say perhaps there was a potential time saver in the standard plan, this is clearly not the case today and there is the possibility of the buildings place in the environment not receiving due attention by using the standard. A part of any architects



function is to consider the location and site criteria impinging on the buildings use in determining the buildings design. With a standard plan that is virtually impossible. I have looked at a sample of standard plans to try and determine whether or not they are excessive in terms of either, detail, quality or service in respect to the building code. In general, I believe the plans are not excessive especially in terms of materials which have in the main, been treated with a high degree of economic sense. There are two areas of comment I would make and these are roof design and construction and floor construction.

In respect to floor construction, it has long been my view that we should not be building our kindergartens on concrete floors. At another time during the conference we hope to be discussing the basis for this. That is, maximum ability to relocate, however, there is also a potential saving on most building sites and under present building bylaws in using timber floors, Kingston and Partners estimate that at June 82 costs, a saving of \$2,000 could have been made on the Cloverlea building by changing to a timber floor and the Cloverlea building is on a flat site.

In respect to roof design and construction, it is my opinion that there is much to be desired among most standard plans. Almost without exception, kindergarten standard plans are worked at to provide a basic rectangular floor plan. What happens then is that in an apparent attempt to create some sort of liveliness about the building, a crazy creation of roof shapes and therefore construction techniques takes place.

I am not against interesting roof forms, however it is my view that these forms can only be economic when they reflect an interesting floor layout below.

Kingston & Partners estimate that if the "interesting" roof forms and complicated construction on the Cloverlea Building was replaced with a simple steep gable, then the June 82 saving could be \$4,000.00.

As an example of all the above points made, I have looked at the Wellington Association Wadestown Kindergarten.

Wadestown kindergarten, under the guidance of the Wellington Board, is a private Architect design on a very difficult site. The building clearly stretches both the Departments Building Code and Building bylaws to their limits to arrive at a truly childrens building and surrounds. The building was built at June 82 rates for \$589.00 per square metre - almost exactly the Wellington Average House cost.

The very shape is exciting and is a result of the formal treatment of the whole building as one design problem. The buildings interior is just as exciting with the unnecessary use of expensive materials or techniques.

To my mind, the type of approach taken by the Wellington

Association, with the obvious approval of the Board concerned, has produced a far more appropriate kindergarten environment than most "off the shelf" standard plans.

It will be suggested that the cost of using an Architect would be prohibitive. Admitting an obvious bias I can say that the Wadestown experience clearly shows that the quality of product has many times off-set its fee cost.

The Manawatu Association used a private Architect to design their Ashhurst Kindergarten completed in 1977. The kindergarten is a Grade 1 and at June 82 costs including site works the cost was \$100,859.00 including Architects fees. This compares with the Cloverlea Grade 0 including site works at \$100,741.00. Almost exactly the same cost, but another 30 square meters and including Architects fees.

#### THE MINIMUM CODE FOR NEW PRESCHOOL BUILDINGS

In general, I believe the building code is a satisfactory document remembering that it is a minimum code.

Again I can see that historically the necessity to produce a minimum code was strong when many buildings were being built and there were many different associations building them, however with our reduced building load and the very real possibility that we will have enough buildings to cater for our needs very soon, the necessity for the code seems to me to have diminished.

The code is actually in two parts, the main section being the actual physical minimum requirements with the second section or "Explanatory Note" covering a general educational guide to pre-school buildings.

To my mind the second part of the code has very worthwhile comment and would cover all an architects questions in terms of briefing him for a new building. In general I believe we are far too regulated particularly in the building industry and the architect I believe has sufficient information available, without the physical restrictions of the code, to enable him to design an appropriate kindergarten.

I hasten to add that I am no educational expert, however it does seem to me that the building code must in some way be restricting growth and change in pre-school teaching philosophy and this must surely, in the end, be detrimental. In terms of cost, I don't believe the code is having any great effect, I do suspect however that associations have been guilty in some instances of adding items above the minimum without full awareness of the cost changes.

In conclusion, I would like to suggest that the Union executive carefully consider the following suggestions:

1. The proposed area administration structure or one similar to it will provide a proper base under which associations could resume their rightfull





responsibilities in determining their own future building requirements. Should such a scheme not be implemented, then Groups of Associations should be arranged to provide a wide base of experience and ability to take on their own responsibilities.

2. With the proper administrative bases in the associations, the department should be approached to phase out the use of standard plans to be replaced by kindergarten units designed for each specific case and under the authority of the association concerned.
3. Having regard to point 2, being implemented then a dialogue with the department should be commenced in respect to the building code with the aim of dispensing with all but the type of information currently contained in the "Educational Considerations" section.
4. That Unions inform the department that on the assumption that point 2 is implemented, that is the phasing out of standard plans, then the decision or not to use the services of the Education Board should be the sole responsibility of the Association concerned.

There are of course many questions unanswered, as I said in the beginning, for instance what about maintenance, the Boards will want a say? Well, my personal view is that we should be calling the tune not the boards, and we should be consulting professionals whose advice should be accepted by the Boards - of course I firmly believe that with proper area administration we would be able to handle our own maintenance anyway, but that's another story.

I hear you say - but it's not all our money some of it's Governments - won't they want a say. Well I believe that the departmental people will recognise that if we manage ourselves and our building affairs efficiently and professionally then we will receive the proper recognition that we can manage our own affairs and their money, of course liaison is necessary and must be retained however we have the ability if we have the guts to use it.

I hope this has opened up a few areas for discussion and I stress again no personal criticism of Board officers is intended, however I do believe the system is in need of radical overhauling and I hope I may have suggested some possible tools and methods to achieve a better result for our movement.