



Major Integrated Project 2011: St Michaels School, Grabouw.

Proposal for Alterations to Existing School Building at Elgin, Grabouw.

The second year Architectural major integrated project defines the need of a rural school for the remodelling and reorganizing of its internal spaces as to allow for a different way of teacher/pupil interaction. I, and my employer, have given considerable thought as to how this can be achieved with such very limiting criteria. What came to mind was to enlarge the usable space but without heavy construction, extend inside to outside, rejuvenate, and thus I came to formulate a series of ideas.

This is my Proposal for an Architectural Intercession.

EXISTING BUILDING:

The existing building at the site comprises a series of four adjacent classrooms, an administrative locale and storing facilities, placed in a semi wooded area prone to very hot temperatures with little wind. It seems to be largely a lower income settlement with little corporate development and infrastructure, very much a secluded village at the head of a dirt road.



In the brief, the school representatives mention that they are interested in incorporating a mezzanine floor into the existing class room. Looking at the anthropometrics this is a viable concept for the smaller children with the space fitting into the truss space. This idea depends on the removal of ceilings. I was thinking of replacing some of the trusses with clearstory ones to open up the ridge and provide natural light into the space.

Unfortunately, Mr Adams informed me that the roof is asbestos sheeting and thus cannot be altered without the help of a professional construction company that deals with the removal of asbestos products.



INTERVENTION

Taking into account that the work will be done by students and in a very limited time frame, 6 days, I propose the following interventions.

1: Repainting of the structure both inside and outside; the use of bright colours and shapes can create a feeling of dynamic movement (as seen at the entrance to the Stevenson Art Gallery) and at the same time rejuvenate the site.

1.1 A bright colour aspect can make a big difference to the way children perceive and engage in learning.

2: The creation of a vegetable garden; this is a small way of making a big difference. As major corporate community service projects illustrate, the involvement of the community in projects has a big influence on the longevity of these interventions. This garden can be a continuity of the project and inspire the contribution of the whole school and be a visible measurement of the change. The addition of a lawn space can be utilized as an outdoor study space, with seating provided under the shade of a netted structure or gazebo.

2.1 The use of tree trunks as seating on the lawn, under a tree, can be a very cost effective way of creating an open space without having to formally provide benches and tables. There is a large quantity of trees surrounding the site, thus providing abundant materials to use.

2.2 Putting down a lawn and creating a veg garden is not expensive but does require some upkeep, with informal retailers offering +_ 1 m square strips at R18.00 each. A community schedule that both maintain and benefit from this idea could form a relationship between the wellbeing of the school and the aspirations of the community.

2.3 Consideration should be given to the development of grey water systems for the purposes of irrigation. This can be achieved through the collecting of stormwater run-off and a specialized natural filtering system. An appropriate grey water recycling model can be read in the third (August/September) issue of "Earthworks" magazine on page 52.

3: Building a tree house: All kids love a tree house. In constructing a tree house into the existing tree at the entrance we can create a space that children can see as a fun activity and a point to venerate.

3.1 Constructing a safe and entertaining tree house would be an excellent opportunity for students to engage our knowledge of framed structures.

4: Building a Jungle Gym: This structure will be constructed over the existing retaining wall, between the gable wall and the tree house.

4.1 Again, this can be a great opportunity for the students to explore framed timber structures and anthropometric parameters involved in children activities

5: Extending the ablutions: We will construct an extension to the existing ablutions, adding two hand wash basins, without breaking into any existing structure.

5.1 Wet works are restricted to this section of the project which entails the extension of the ablutions wall, adding hand wash basins and placing it under a (student) crafted pergola with laaijies to provide shade. Rough timber planks can be shaped and treated on site and easily assembled by the student working force.

6: Re-ordering the internal spaces: This can be a relatively easy task and will combine space friendly furniture and interchangeable storage units although these items could take longer to assemble if not easily designed.

These six points constitute my concept “Rejuvenation” of the St Michaels school grounds. A time constraint limits the extent to which changes can be completed and thus I do not propose major wet works and structural alterations. Rejuvenating the landscape through minor changes seems to be a more viable solution.

New legislation regarding any alterations to buildings also adds an element of more staid construction which can be problematic in this circumstance.

COSTING:

I foresee that the most expensive items would be the collection and transport of the materials needed for the jungle gym, the tree house and then the ablution extension. It would be more expedient to have the local community involved in this part of the project. Surveying the surrounding area by the locals could provide information as to what is already available and what would need to be transported from Cape Town.

LABOUR:

These projects that I propose are not very labour intensive but could take longer than the given 6 days. Dividing the projects between students I believe that the tree house, jungle gym and extension can be completed and that the preparation for the lawn and garden can be accomplished.

SPONSORSHIP:

Given the timeframe and limited resources available to us, my proposal does not require huge capital sponsorship.

Materials required (preliminary list);

- X 5 Lt Paint (colours to be confirmed but most likely prime, i.e. blue, red & green)

 - Paint Brushes, rollers, cleaning fluid

- Weather treated gum poles with fixing nuts & bolts.

 - Tools, measuring equipment

- m shading net.

 - Fixing items

- JoJo Tanks

 - Waiting for more information from suppliers

- Seed and Lawn

 - A class of 2011 fundraiser could provide ample funds to purchase these items. Most

retailers would most likely be happy to contribute in this way.

CONCLUSION:

I have re-evaluated my proposal after our Academic Bloc 2 and decided to take it down a notch. The alteration of the roof structure and extensive building was my first response but, I realised that this would be a relatively unattainable goal within the confines of our brief and the social context of the community in which we plan on working.

This seems a more feasible plan of action yet can be achieved in the same spirit as a much more elaborate design.

Herman Brand

209-258-241