Presby Primary School, Damongo, Ghana

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Following the successful completion of the Saint Anne's Boarding School for Girls in partnership with the local Catholic diocese, AWB is partnering again with Marilyn Pottage and Tools for Schools Africa to develop a new building for Presby Primary School. The new building will house a computer lab, library, and headmistress office and sleeping accommodation. This project will also be constructed in partnership between a local engineer/contractor and the Service Learning in the Global Community course offered through the University of Manitoba, Faculty of Architecture Program in spring of 2013.

The proposed building is approximately 140 square meters with additional covered outdoor verandas. A computer lab will create spaces for approximately 28 computer learning stations, complete with overhead projector and screen. A library will accommodate book as well as tables and chairs for reading and study purposes. An office will be provided for headmistress including a desk and small meeting area. Its central location allows for supervision of the 2 learning areas. A compact sleeping accommodation will also be provided for the headmistress as well as 2 students under her care.

Shuttered windows placed on opposite exterior walls will provide cross ventilation and open up the computer lab and library to the veranda which acts as an extension of the interior space . Soffit and ridge venting is proposed to further reduce the need for mechanical ventilation. The veranda will also function as a community gathering area and maybe used to stage small theatrical performances.

The AWB team proposed a metal roof and plaster walls in keeping with local building conventions. In the previous project work in Damongo, the AWB group had proposed an asymmetrical roof style including exposed rafters on the interior. The design would permit natural ventilation and day-lighting from above and eliminate the need for a false ceiling on the interior. The AWB team did not initially understand the resistance of the local builder to this idea, during construction however, it became clear. The wood rafters are typically coated with a black creosote to prevent termite damage. While more cost effective than building with termite resistant wood products the result is far from aesthetically pleasing and creates concern for the health of the workers and students. On this project, the AWB group investigated alternatives to creosote:

a) treated lumber - which also creates some environmental concerns but is more aesthetically pleasing and allows for exposed rafters
b) metal rod trusses – which can minimize or eliminate environmental and health concerns.

Once the local contractor is engaged these 2 options will be explored further to determine cost impact and availability of materials.

Look for a project update in fall of 2013 once the service learning students return from the construction site!