**Gashonyi Clinic Task List**

February 2011

The purpose of this document is to break down the Gashonyi Clinic Project into task oriented groups set on reaching specific goals. Below the description of each group, there are several items with a lower-case letter in front of them that should have a task report assigned to it to make sure goals are attained and gaps are filled in. Whenever a new student joins this project, they can look through this list to see what they are interested in, and then read the task reports to see what work needs to be done.

1. **Hospital Flow Group:** This group is meant to organize the flow of patients through the clinic ensuring efficiency and effectiveness while keeping an eye on safety. This group is great for Industrial and Systems engineers, but also for interior designers, and anyone interested in organizing the layout of the clinic.
   1. Floor Plan
   2. Patient Safety
   3. Furniture
2. **Health and Disease Group:** This group is focused on the disease, illnesses, and ailments that affect the population of the Gashonyi region. The group has been working on service population demographics to try to identify the most important diseases to treat while staying cognizant of the many reasons that people may come to the clinic. Safety for the patients while at the clinic is a concern for this group, so they will work closely with the Hospital Flow Group. Biomedical and Industrial engineers would be well suited for this group, but it is open to other majors such as biology, chemistry, and anyone else interested.
   1. Health
   2. Medical Waste Disposal
   3. Medical Services
3. **Water Group:** Finding solutions to water needs for the clinic will be this group’s main area of research. This will include coming up with innovative ways to get water in such a remote location, or think of ways to purify existing water to an acceptable level to be used at a clinic. Options explored can range from rainwater catchment systems to biosand fliters and more. Students interested in civil, geological, mechanical, and biomedical engineering are highly encouraged to join, although students with a background in biology, chemistry, microbiology, and other disciplines will be a great resource as well.
   1. Plumbing
   2. Source exploration
   3. Purification systems
4. **Sanitary Systems Group:** The purpose of this group is to find a safe, sustainable way to take care of patient waste at the clinic. Currently, many Rwandans use compost type systems that are both unsanitary and insufficient for our purposes. Students in civil, mechanical, and biomedical engineering will be very useful here as well as students interested in microbiology, global health, and chemistry.
   1. Sanitary waste
5. **Energies Group:** This group is aimed towards providing a reliable energy system to the clinic while utilizing clean, renewable energies where possible. This group will explore the possibilities of running a new power line to the area and the feasibility of energy options such as solar and backup power. Electrical, mechanical and civil engineers as well as chemistry, physics, and environmental studies majors will be well utilized in this group.
   1. Power
   2. Renewable energies
6. **Group “EWH”:** The focus of this group is to provide the clinic with reliable, cheap, and easy to use equipment. A clinic such as this is located in a very rural, low income area, and even seemingly archaic, discarded, equipment may be the difference between life and death to many people. Engineering World Health is a group that has been working on fixing old equipment and making designs for new, cheaper equipment. Mechanical, electrical, and biomedical engineers will be an asset to this group, feel free to contact Engineering World Health for more information.
   1. Medical Equipment
   2. Education
7. **Group “Elise”:** This group is focused on keeping the bookwork and numbers in check as well as making sure the project stays on task. A project manager would most likely be working closely with this group, although students interested in business, accounting, and industrial engineering would be well suited for the task.
   1. Service Population
   2. Clinic Intake
   3. Staffing
   4. Budget (entire project)
8. **Construction Group:** This group’s major goal is to oversee the construction and contractor selection process to ensure nothings has been missed in both building codes and Ministry of Health requirements. This group will be working on helping to coordinate the various technical aspects of the project, so will be working in conjunction with the power, sanitation, and water groups. Interests in civil and mechanical engineering would be a great asset although anyone interested in managing and coordinating construction efforts would be very helpful and welcome.
   1. Contractor selection
   2. Regulations and Local Requirements
   3. USA/Rwanda integration
9. **Rented Architect/Consultant:** This is not really geared to be a student group, but students in the Gashonyi clinic project will need to keep tabs on this. An architect, engineer, or consultant will need to be hired to help with putting our designs into actual plans that can be interpreted by builders in Rwanda. This means doing all of the spec formatting, materials selection, making judgments on feasibility of the structures, and hiring out subcontractors. There will also need to be some discussion on infrastructure development to the area, which will have to be closely monitored by students, yet facilitated by our hired help in country. As of February, 2011, we are considering utilizing the help of Bruce Nizeye, an engineer who used to work for Partners In Health in Rwanda.
   1. Site work
      1. Landscaping
      2. Access roads
   2. Structure/construction protocols (research this….)
      1. Plans
      2. Specs
         1. Building
         2. Electical
         3. Plumbing
         4. Ventilation
         5. Structural
      3. Cost
      4. ADA Compliance
10. **Law/Business Students:** This is a group that focuses its efforts outside of engineering and helps with the legal and business aspect of the project. To make this project work, we need some students who are interested in contracts, law, and finances to put together some paperwork that would keep things between our EWB group and the people we are working with in Rwanda clean and fair. This includes liability issues, agreements for financial distribution, and construction bidding. Students interested in forming or managing a civil engineering company would be well suited for this job, but would most likely benefit from the input of some business and law school bound students.

* 1. Contract Requirements
     1. Legal contract
     2. Insurance
        1. Workman’s compensation
        2. Liability
     3. Performance Bond
     4. Bidding
  2. Financial Sustainability