

ARCH 199.2 SORIANO

Rethinking SCHOOLS

Reducing Vulnerabilities to Typhoons, Flooding, and its Transformation as Evacuation Centers

The vulnerability of education evident from the disruptions due to natural hazards particularly of typhoons and flooding, is a persisting problem of the country because of the country's geographical location. Because of this, the fragility of the Philippines' education system is an issue that should not be ignored as it involves the lives of the youth, which hold the future of the society. Disruptions in education due to fragility could negatively affect children in general, affecting the societal, economical, and cultural domains of the country in the long run. Consequently, this comprehensive design project attempted to conceptualize a school that could lessen

the vulnerability of both the structure and the community in Mayondon. In addition, public structures that are deemed safe in times of emergencies from natural hazard events, could offer a helping hand to the community that it serves by standing as a relief haven for those in need. Although some studies have been against the idea of schools functioning as shelters, this project argues that architecture should progressively function and adapt to the growing needs and demands that the environment brings. In other words, This study argues that changes in the design of schools are necessary to avoid disruptions in education and to help both

the system and the surrounding communities adapt from changes in the environment and calamities. The study ultimately proposes an adaptable and disaster-resilient school infrastructure in the municipality of Los Baños which is established to be flood-prone and a recurring victim of school flooding. The architectural proposal addresses the flooding problems causing disruptions in education; explore the changes that could efficiently and effectively convert the school to a shelter in times of crisis; and ensure safety for evacuees, children, and teachers.

DESIGN OBJECTIVES AND APPROACH



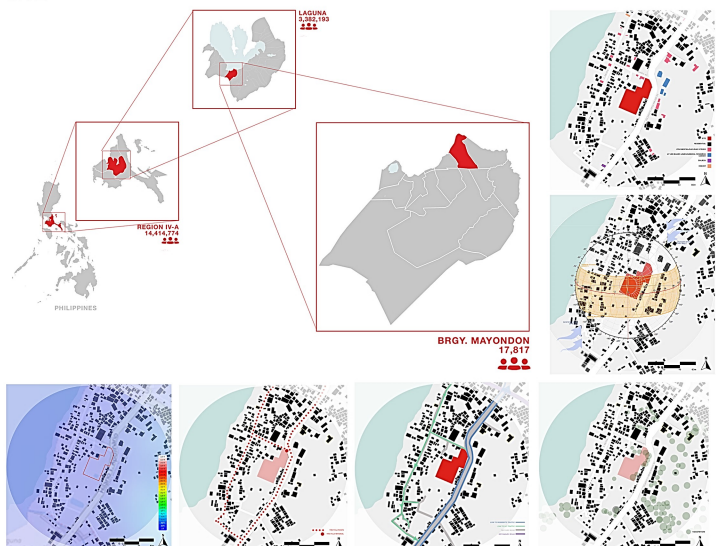
The design objectives will be rooted from the research objectives of the study. The overall objective of the proposed project is to be able to develop a disaster-resilient and function-adaptable school infrastructure. The project aims to function as a school, and as an evacuation center in emergency situations. With these objectives in mind during the design process, the considerations of school and evacuation design shall go hand in hand to create a comprehensive school-shelter complex which has a flexible function and adaptable use according to situational needs.

The design approach is anchored into four (4) goals for the design output: flexible process and product, nature and natural processes as co-designers, anticipating changes and contingencies, and breaking barriers. The two rectangles above address the nature of the change in functions of the project both as a school and the capacity of the proposed project to function as a public shelter in times of calamities. On the other hand, the two rectangles below deal with the nature of flooding, typhoons, climate and season, as big considerations in the design process.

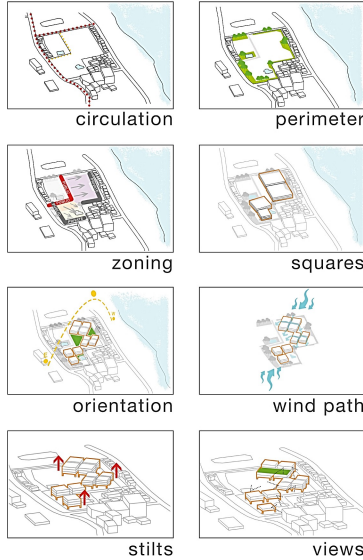
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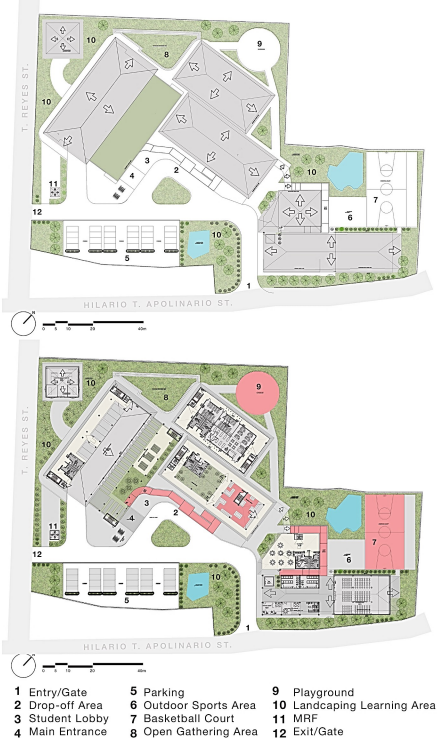
SITE



DESIGN MORPHOLOGY



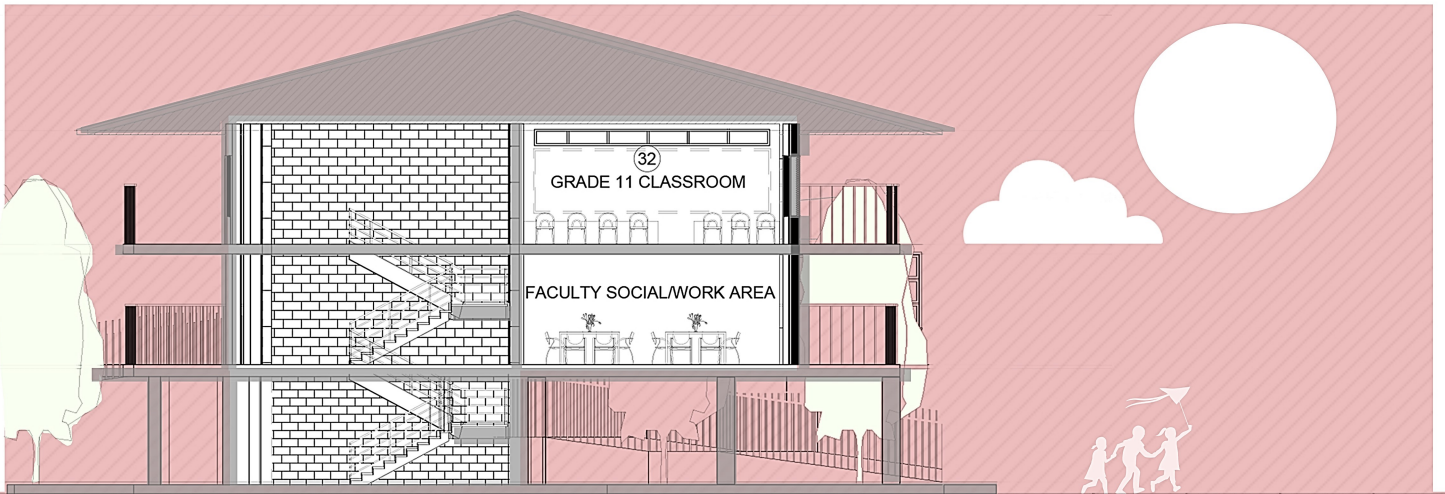
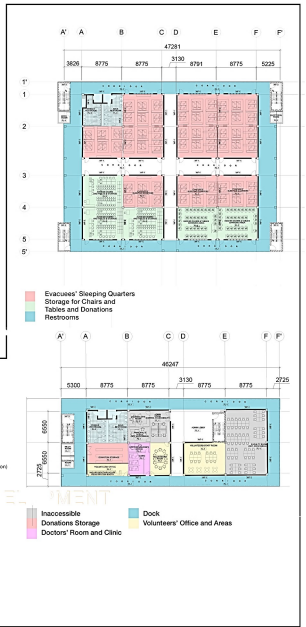
SITE DEVELOPMENT



SCHOOL ON A NORMAL SETUP FLOOR PLANS



EVACUATION SHELTER FUNCTION CONVERTED PLAN



SCHOOL ON A NORMAL SETUP SECTION



SCHOOL ON A NORMAL SETUP SECTION

