

**PROPOSED DESIGN OF A SPORTS COMPLEX COMPRISED OF A
THREE STOREY SPORT CENTER IN PROVINCE OF CAVITE**

Design Project

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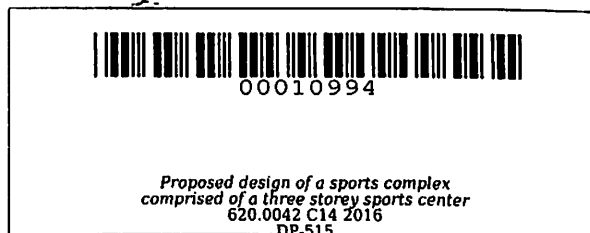
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PROPOSED DESIGN OF A SPORTS COMPLEX COMPRISED OF A THREE STOREY SPORT CENTER IN PROVINCE OF CAVITE

Undergraduate Design Project
Submitted to the Faculty of the
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ABSTRACT

CAMINO, JESON REY L. and LLADONES, JEROME N. Proposed Design of a Sports Complex Comprised of a Three Storey Sport Center in Province Of Cavite. Undergraduate Design Project. Bachelor of Science in Civil Engineering. Cavite State University Indang, Cavite. April 2016. Adviser: Engr. Rico A. Asuncion.

The study entitled “Proposed Design of a Sports Complex Comprised of a Three Storey Sport Center in Province Of Cavite” was conducted at Cavite State University – Main Campus from June 2015 to March 2016.

The study aimed to prepare a physical development plan and to design a Sports Complex with a three storey with roof deck sports center for the Province of Cavite. The lot allotted for the complex has an area of 74,740 square meters and the proposed structures have an area of 16,199.75 sq. meters. The development plan is composed of a multi-purpose grandstand and a three storey sport center building, an athletic field, parking areas and aesthetics gardens. The study included the architectural plan and structural details of the proposed structures. Architectural plans included perspective, floor plans and elevations. Structural plans included detailed design of steel beams and columns, pedestal, tie beams and footings and other structural members. Architectural and structural plans of the Multi-Purpose Grandstand and the Three-Storey Sport Center were drawn using Auto Computer Aided Design (AutoCAD) and Google Sketch up software to show the site development and perspective. The analysis of the individual structural member was obtained with the aid of Structural Aided Analysis and Design (STAAD) software.

The data gathered for the computations of structural design of the multi-purposed grandstand and three storey sports center including the design of trusses, purlins, sag

rods, reinforced concrete beams and columns, steel beams and columns, baseplate and anchor bolts, slab, pedestal, tie beams and footings were safe and economical.

The authors recommend a more comprehensive study of the proposed design of sport complex comprised of sport center including other materials that could be used such as reinforced concrete for future implementation.

The estimated total project cost of the proposed structures is Php 246,283,068.

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INTRODUCTION

Sport has the power to change the world. It has the power to inspire. It has the power to unite people in a way that little else does.

The United Nations (UN) defines sports in a development context as a broad and inclusive spectrum of activities suitable to people of all ages and abilities, with an emphasis on the positive values of sports. In 2003, the UN Inter-Agency Task Force on Sport and Development and Peace defined sports, for purposes of development, as “all forms of physical activity that contribute to physical fitness, mental well-being and social interaction such as play, recreation, organized or competitive sports and indigenous sports and games.”

The promotion of sports is currently an interesting topic that emerges worldwide including in the Philippines. It is the responsibility of each nation to promote physical