

**STRUCTURAL DESIGN OF GASOLINE AND SERVICE STATION
AT CAVITE STATE UNIVERSITY- MAIN CAMPUS,
INDANG, CAVITE**

Undergraduate Design Project
Submitted to the Faculty of the
Cavite State University
Indang, Cavite

In partial fulfillment
of the requirements for the degree of
Bachelor of Science in Civil Engineering



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*Structural design of gasoline and service
station at Cavite State University - main
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ABSTRACT

CASTILLO, ANGELITO L. AND RUEDA, BRYAN JOSEF B. Structural Design of Gasoline and Service Station at Cavite State University – Main Campus, Indang, Cavite. Undergraduate Design Project. Bachelor of Science in Civil Engineering. Cavite State University, Indang, Cavite. April 2005. Adviser: Engr. Allan Rowel V. Alonalon.

Structural Design of Gasoline and Service Station at Cavite State University – Main Campus, Indang, Cavite was conducted from February 2004 to February 2005 and was evaluated in February 15, 2005 at Audio Visual Room, Department of Civil Engineering, College of Engineering and Information Technology.

Having a gasoline and service station at Cavite State University is of great importance to the growing population of vehicles in and outside the university for it also provides the university an income-generating project. The general objective of the proposed project was to develop and design a gasoline and service station at Cavite State University for the purpose of providing data for the institution to serve as a reference for the future planning.

The authors provided the structural design of the proposed project as well as the detailed architectural drawings, estimated cost of masonry works, concrete works, carpentry works, steel works and earthworks. A miniature-scaled model was provided to show the actual view of the structure once built.

The study enabled the authors to apply their knowledge and skills in the design process of a Civil Engineer as a professional. In determining the most economical sections in designing, structural analysis was done involving models of the loads and

structural frameworks. In the analyzing process, parameters like axial loads, shear and moments were obtained. The structural members were checked for safety, strength and economy based on the requirements specified in the scope of works and other existing codes in the Philippines. The cost estimates were prepared based on the architectural and structural plans. The materials used were based on the present price in the local market.

TABLE OF CONTENTS

	Page
BIOGRAPHICAL DATA.....	i
ACKNOWLEDGMENT.....	iii
PERSONAL ACKNOWLEDGMENT.....	v
ABSTRACT	ix
LIST OF APPENDICES.....	xi
LIST OF TABLES	xii
INTRODUCTION.....	1
Nature and Importance of Study.....	2
Statement of the Problem.....	4
Objectives of the Study.....	4
Scope and Limitation of the Problem.....	5
Time and Place of the Study.....	5
REVIEW OF RELATED LITERATURE AND STUDIES.....	6
Building.....	6
Parts of a Building.....	6
Gasoline Station.....	6
Service Station.....	7
Convenience Store.....	7
Allowable Stress Design.....	7

Ultimate Strength Design.....	7
Structural Design.....	7
Reinforced Concrete Design.....	8
Retaining Wall.....	8
Loads.....	11
Design Procedure.....	12
Structural Steel.....	15
Cement.....	18
Beams.....	18
Stirrups.....	18
Columns.....	18
Lateral Ties.....	19
Cantilever.....	19
Slab.....	19
Footings.....	20
Masonry.....	21
Fastener.....	21
Welding.....	22
Plumbing.....	22
Drainage.....	22
Specifications.....	23
Surveying.....	24
Estimate.....	24

MATERIALS AND METHODS	25
Data Gathering.....	25
Surveying and Inspection of the Site.....	26
Preparation of Preliminary Drawings.....	27
Establishing of Loads to be Carried.....	27
Structural Analysis.....	31
Design Computations.....	31
Preparation of Architectural and Structural Plans.....	52
Preparation of Detailed Cost Estimate and Specifications.....	52
Development of Miniature-Scaled Model.....	56
Notation and Symbols.....	57
RESULTS AND DISCUSSION	61
Site Investigation/Inspection.....	61
Data Gathering.....	61
Architectural Plans and Layout.....	63
Structural Analysis.....	63
Structural Design.....	63
SUMMARY, CONCLUSION AND RECOMMENDATION	71
Summary.....	71
Conclusion.....	72
Recommendation.....	74
LITERATURE CITED	77
APPENDICES	78