

**COST COMPARISON BETWEEN  
CONVENTIONAL AND FLAT SLAB STRUCTURES**

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Degree of Master of Engineering in Structural Engineering Design

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Thesis / Dissertation submitted in partial fulfilment of the requirements for the  
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## DECLARATION

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Dr.K.Baskaran

## **ABSTRACT**

In present era,conventional Reinforced Concrete(RC) frame buildings are commonly used for the construction. The use of flat slab building provides many advantages over conventional RC frame building in terms of architectural flexibility,use of space,easier form work and shorter construction time.

In the present work conventional and flat slab four story buildings are considered for cost comparison. In this research flat slab building andnormal symmetric RCframe buildings of different spans have been studied. The cost of construction for these buildings has also been compared. To find out the cost of reinforcement, formwork, concrete on structural elements slab,beam,columns are considered.For modeling and analysis of conventional and flat slabstructures,SAP 2000 software is used.The dead loads, live loads are considered as per British Standard.

The investigation shows that weight of flat slab structure is less compared to conventional slab structure. The cost of flat slab structure is less by around 12%-16% as compared to conventional slab. This study concludes that flat slab structures are the best suited for high rise buildings as compared to conventional slab structures,in terms of costof material.

Key words: Conventional slab, Flat slab,SAP2000,Cost Comparison

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# TABLE OF CONTENTS

Declaration	i
Abstract	ii
Acknowledgement	iii
Contents	iv
List of Figures	viii
List of Tables	ix

## Chapter 1

### Introduction

1.1 General	1
1.2 Objectives	3
1.3 Methodology	3
1.4 Main findings	4
1.5 An overview of the thesis	4

## Chapter 2

### Literature Review

2.1 General	6
2.2 Slabs	8
2.3 Conventional beam slab	
2.3.1 One –way slab	11
2.3.2 Two-way slab	12
2.4 Flat slab	
2.4.1 Types of flat slabs	17
2.4.2 Thickness of flat slabs	17
2.4.3 Types of flat slab design	18

2.4.4 Different components of flat slab	
2.4.4.1 Drop	18
2.4.4.2 Column head	19
2.4.4.3 Column strip	19
2.4.4.4 Middle strip	19
2.4.4.5 Panel	19
2.4.5 Use of column head	19
2.4.6 Use of drop panel	19
2.5 Problems with flat slabs	
2.5.1 Punching of flat slabs	20
2.5.1.1 General mechanism of failure	21
2.5.2 Deflection	22
2.6 Behaviour of flat slab building during earthquake	23
2.7 Difference between flat slab and conventional slab-beam	23
2.8 Structural Analysis software SAP2000 ver.14	24
2.9 Verification of SAP2000 software by modeling a four Story frame and compare axial load calculation	25

## **Chapter 3**

### **Structural arrangement & loads applied for case study**

3.1 General	31
3.2 Layout of structure	
3.2.1 Floor loads	32
3.2.2 Initial member sizing	33
3.3 Material properties of structure	
3.3.1 Concrete	34
3.3.2 Reinforcement	34

3.4 Loading to be applied on the structure	
3.4.1 Dead and imposed loads	34
3.5 Structural form for case study	
3.5.1 Flat slab building modeled with perimeter beam	35
3.5.2 Conventional slab building modeled with perimeter beam	35
<b>Chapter 4</b>	
<b>Computer modeling &amp; case study</b>	
4.1 Computer modeling	36
4.2 Load cases & combinations	36
<b>Chapter 5</b>	
<b>Results and Discussion</b>	38
<b>Chapter 6</b>	
<b>Conclusion</b>	
6.1 Conclusion	53
6.2 Future works	54
<b>References</b>	55
<b>Appendices</b>	
<b>Appendix A</b>	
A.1 Calculations – Selection of section dimensions of four Story building	57



A.2 Calculations – Interior slab panel bending moment for Conventional slab	59
A.3 Calculations – Interior slab panel bending moment for flat slab	61
<b>Appendix B</b>	
B.1 Element forces –Frames for 7.5m conventional slab	65
B.2 Element forces –Frames for 7.5m flat slab	81
<b>Appendix C</b>	
C.1 Material requirement- conventional slab	97
C.2 Material requirement- flat slab	98
<b>Appendix D</b>	
D.1 Bending moment diagram for perimeter frame for 7.5m-conventional slab	99
D.2 Shear force diagram for perimeter frame for 7.5m-conventional slab	99
D.3 Bending moment diagram for internal framefor 7.5m-conventional slab	100
D.4 Shear force diagram for internal framefor 7.5m-conventional slab	100
D.5 Bending moment diagram for perimeter framefor 7.5m-flat slab	101
D.6 Shear force diagram for perimeter frame for 7.5m-flat slab	101
<b>Appendix E-Norms</b>	
E.1 Mixing concrete Grade 30	102
E.2 Mild steel/Tor steel reinforcement to lintols slab beams or columns bent to shape laid in position and tied with G I wire as directed	102
E.3 Sawn timber form work for moulding, assembling, dismantling, cleaning and labour	103

## List of figures

Figure2.1	Brittle punching failure in flat slabs	6
Figure2.2	Floor height difference between flat slab and Conventional beam slab	7
Figure 2.3	Flat slab failure in earthquake	7
Figure 2.4	Flat slab failure in earthquake	8
Figure 2.5	Beam with internal and external forces	10
Figure 2.6	One way slab with beams	11
Figure2.7	Two way slab with beams	12
Figure 2.8	Flat slab	14
Figure 2.9	Solid flat slab	15
Figure 2.10	Coffered flat slab	15
Figure 2.11	Solid flat slab with drop panel	16
Figure 2.12	Types of flat slab	17
Figure 2.13	Flat Slab Failure due to Punching shear	21
Figure 2.14	Punching shear failure near columns	22
Figure 2.15	Conical failure surface of flat slabs	22
Figure 2.16	Flat slab model with perimeter beams	25
Figure 2.17	Conventional beam slab model	26
Figure 2.18	SAP Analysis window of the slab moment of Conventional slab	29
Figure2.19	SAP Analysis window of the slab moment of Flat slab	29
Figure 3.1	Layout plan for 7.5m span	32
Figure 4.1	Analyzed conventional beam slab building	38
Figure 4.2	Analyzed flat slab building	38
Figure 5.1	Span vs concrete volume ( $m^3$ )-Slabs	40
Figure 5.2	Span vs concrete volume ( $m^3$ )-Beams	41
Figure 5.3	Span vs concrete volume ( $m^3$ )-Columns	41
Figure 5.4	Span vs reinforcement (Mt)-Slabs	43
Figure 5.5	Span vs reinforcement (Mt)-Beams	44

Figure 5.6	Span vs reinforcement (Mt)-Columns	44
Figure 5.7	Span vs formwork area (m <sup>2</sup> )-Slabs	46
Figure 5.8	Span vs formwork area (m <sup>2</sup> )-Beams	47
Figure 5.9	Span vs formwork area (m <sup>2</sup> )-Columns	47

## List of tables

Table 2.1	Load comparison-Conventional slab	27
Table 2.2	Load comparison-Flat slab	28
Table 3.1	Initial member sizing	33
Table 3.2	Grade of concrete and their properties, as BS8110	34
Table 5.1	Concrete requirement conventional slab	39
Table 5.2	Concrete requirement flat slab	40
Table 5.3	Percentage saving for Concreting (m <sup>3</sup> ) with respect to conventional slab	40
Table 5.4	Reinforcement requirement conventional slab	40
Table 5.5	Reinforcement requirement flat slab	43
Table 5.6	Percentage saving for Reinforcement(Mt.) respect to conventional slab	45
Table 5.7	Formwork requirement conventional slab	45
Table 5.8	Formwork requirement flat slab	46
Table 5.9	Percentage saving for formwork(m <sup>2</sup> ) respect to conventional slab	48
Table5.10	Total Material requirement for conventional slab and flat slab	48
Table 5.11	Total cost for conventional slab and flat slab	49
Table 5.12	Total cost per m <sup>2</sup> for conventional slab and flat slab	49
Table 5.13	Shear check for 8.0m and 8.5m spans	50
Table 5.14	Axial load comparison	50
Table 5.15	Results comparison	52