

**BAŞKENT UNIVERSITY  
FACULTY OF ENGINEERING  
DEPARTMENT OF CIVIL ENGINEERING**

**CIVIL ENGINEERING DESIGN  
PROJECT  
WRITING GUIDELINES**

**AUGUST 2023**

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## **THE PURPOSE OF THIS GUIDE**

There two courses named "Civil Engineering Design" I and "Civil Engineering Design II" under the codes CE411 and CE412 in the curriculum of Baškent University Civil Engineering Department. These courses aim to familiarize students with how to solve typical design problems that may be encountered in civil engineering practice and how to transfer the theoretical knowledge and skills they have acquired up to that point to third parties. In a sense, these two courses are a preliminary preparation on how to put everything together, it does not mean that the student who succeeds in them will automatically graduate.

Design is an art. Teaching it means bringing the work to a certain point. Much of the goal matures with the engineer's experience, observation and new knowledge gained from other colleagues. Design is a team effort and no one person alone can cope with the design of an entire large work. Engineers who become skilled at communicating their ideas to other members of the team, and who play a guiding role in creating safe, economical and useful systems, climb the professional ladder faster.

The following manuscript is intended to guide you in this direction.

## **1. GENERAL INFORMATION**

This manual is a guideline that aims to provide a certain standard in the writing of the project reports of the graduation projects to be prepared in the Civil Engineering Department of Başkent University Faculty of Engineering in accordance with the "Başkent University Faculty of Engineering Graduation Projects Procedure". In this guideline, the principles of scientific writing of project reports are briefly and concisely stated and supported by examples. Each student is responsible for ensuring that his/her report complies with the standards and rules specified in the guide.

### **1.1. Preparation of Compact Discs (CD)**

Two CDs containing all the work carried out in the project, the project report and the analytical models created and the calculations made in the computer environment will be submitted to the Department together with the prepared report. The files on the CD will be uncompressed and unencrypted and Turkish characters will not be used in naming.

## **2. GENERAL STRUCTURE AND WRITING FORMAT**

In this section, the paper and typefaces to be used in writing the graduation project report, how to place the text on the page, line spacing, numbering of pages, section and subsection headings, references, figures and charts, and principles related to quotations are specified and explained with examples.

### **2.1. Paper Specifications**

A4 standard (21 cm x 29.5 cm) and 75 gr. first pulp white paper should be used for writing the report.

### **2.2. Text Specifications**

All the text should be prepared in computer environment, preferably in Times New Roman font, and should be written on one side of the paper. The font size should be twelve (12) points throughout the report. However, in sections written with a computer program such as Tex, Latex, Scientific Word, etc., the formats required by the program should be followed. For tables and footnotes, smaller font sizes (minimum 8 points) may be used, provided that they can be easily read.

### **2.3. Page Layout and Margins**

At least 2.5 cm of space should be left on the left margin of each page, 2.5 cm on the top and bottom margins, and 2 cm on the right margin.

## **2.4. Text Layout**

Reports should be written in accordance with the writing plan described in Chapter 4. Section and subsection headings should be written close to the left using bold characters in the same font size and nothing else should be written next to these headings. All lines should be written in "justified" format. Words should not be divided at the end of the line.

## **2.5. Line Spacings**

In the main text, 1 (one) full line spacing should be used in the text, 2 (two) full line spacing should be given before and after headings, figures and charts, and between paragraphs, and sections should always start at the top of a new page.

## **2.6. Page Numbering**

Page numbers should be written in the center at the bottom of the page, and all pages except the cover and approval should be numbered. The preliminary pages of the thesis such as Abstract, Acknowledgments, Table of Contents, List of Tables, List of Figures, List of Symbols and Abbreviations should be numbered with small roman numerals such as "iv, v, vi ...", and from the Introduction onwards with numbers such as "1, 2, 3, ...". No signs such as brackets or dashes should be used before or after the page numbers.

## **2.7. Sections and Subsections**

In determining the sections and sub-sections of the report, unnecessary detail should be avoided and the order of priority of the sections and sub-sections relative to each other should be considered. An example is given in Figure 2.1.

- First order section headings should be written in CAPITAL LETTERS, and the first letter of each word should be capitalized, and the others should be written in lower case in second-order subsection headings. In third and lower-level section headings, only the first letter of each word should be capitalized, and the others should be written in lower case, and conjunctions such as and/or, with in second level section headings, if any, should be written in lower case.
- All section headings should be written in bold.
- Section headings should be written with the section number in numeric characters such as 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, etc., followed by a period and a space after the period. Subsections should be numbered as 1.1, 1.2, 1.2.2, 1.2.2, 1.2.3, and no more than 2 levels of subsection numbering (maximum 3 digits) should be made. If a level 3 subsection is required, this can be done using lower-case letters such as a), b), c) and parentheses. In such cases, a space should be left after the parentheses. Example title numbering is given in Figure 2.1.

# **1. INTRODUCTION**

## **1.1. Structural Information**

## **1.2. Typical Plan Layout**

### **1.2.1. Design Loads**

#### **a) Dead Loads**

#### **b) Live Loads**

Figure 2.1. Example section and subsection headings

## **2.8. References (Citations)**

Citation in the text should be provided in square brackets with notations such as [5], and the number in brackets should be the sequence number of the publication included in the REFERENCES section. Each reference cited in the text of the report must be included in the REFERENCES section of the report. An example of citation in the text is given in Figure 2.2. If the reference numbers are consecutive, the numbers of the first and the last one are written with a dash [-] between them. For example, if the references from 3 to 8 are consecutive and the 13<sup>th</sup> reference is also cited, this situation is shown as [3-8, 13] in the text.

De Bock et al. (1999) reported that accidental eccentricity-induced torsional moments can potentially affect the behavior of structures with torsional irregularities under earthquake action [1]. It has also been reported that  $\pm 5\%$  accidental eccentricity applied to symmetric systems without torsional irregularities underestimates torsional responses [2].

### **REFERENCES**

**[1]** DeBock D.J., Liel A.B., Haselton C.B., Hooper J.D., Henige R.A., "Name of paper," *Abbrev. Title of Periodical*, vol. *x*, no. *x*, pp. *xxx-xxx*, Abbrev. Month, 1999.

**[2]** Dimova S.L., Alashki I., Seismic design of symmetric structures for accidental torsion, *Bulletin of Earthquake Engineering*, vol. 18, no. 3, pp.381–389. August, 1990

Figure 2.2. Citation example

## 2.9. Quotations

If there is a quoted part taken from another reference in the report, a quotation should be written in a separate paragraph, within quotation marks ".....". A sample citation is given in Figure 2.3.

Wallast explained this situation [18]:

"The dissolution rate of aragonite, one of the two polymorphs of CaCO<sub>3</sub>, is slightly higher than that of calcite, suggesting a small difference between the bond energies of the two crystal systems"

Figure 2.3. Quotation example

## 2.10. Footnotes

Very brief and concise explanations, which would distract the reader from the subject and prevent continuity in reading, can be written in a few lines at the bottom of the same page as a footnote. Footnotes should be numbered starting from "1" for each page and should be given as a top index above the relevant word as in the example below.

Footnotes should not be used for referencing and should only be used for special explanations or definitions. An example is given in Figure 2.4.

Accidental eccentricity-induced torsional moments<sup>1</sup> can potentially affect the behavior of structures with torsional irregularities more severely under earthquake action. The additional story torques<sup>2</sup> that may arise due to these effects lead to force and deformation demands on structural members.

(bottom of the page)

---

1  
2

Figure 2.4. Footnote example

## 2.11. Figures and Tables

When necessary, figures and charts should be included in the report to help the narrative. Care should be taken to ensure that all lines, signs, symbols, numbers and writings to be included in figures and charts are large enough to be comprehensible both in printed and digital format.

### 2.11.1. Placement of Figures and Tables

Figures and charts should be placed on the page on which they are first mentioned in the text or on the following page. The page margins should never be exceeded. If any figure could not be



placed within the page margins, they should either be reduced in size or presented in the Appendix. There should not be any figures and charts within folded pages in the text of the report. If a table longer than one page to be included in the manuscript, it should be divided into one page (from an appropriate place) and a footnote should be written in the bottom right corner as "Continues next page."

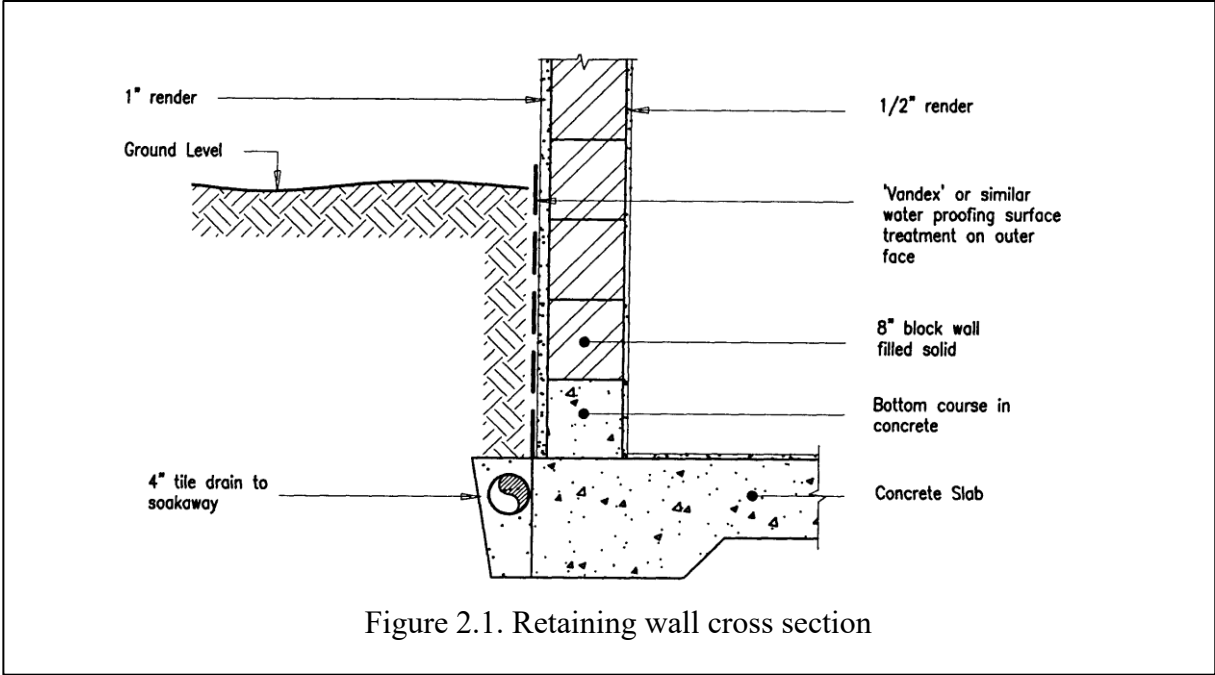
Figures and tables with a size of half a page or less may be included in the text. In this case, the table or figure in question should be placed either at the top or bottom of the page, and one extra space should be left from the top or bottom of the text, depending on the spacing used. Figures or tables larger than half a page in size should be placed on a completely separate page. Two or more small figures or tables may be given on the same page. If they are closely related to each other, they should be labeled as "a, b, c, d, ...." and all of them should be given a single figure or table number. Each table or figure symbolized by a, b, c, d, .... should be identified separately in the caption.

### 2.11.2. Numbering of Figures and Tables

All figures and charts should have their own number. Numbering should be done with numerals. The first number should indicate the section and the second number should indicate the sequence (e.g., Figure 3.6 or Table 2.1).

### 2.11.3. Figure and Table Captions

All figures and tables in the report should be numbered and titled. Table captions should be written above the table and figure captions should be written below the figure. These titles should be as concise and descriptive as possible. If the headings exceed one line, the second and subsequent lines should start in the same column as the first. The first letter of the first word should be capitalized, the others should be lowercase, and no period or comma should be placed



at the end. Figure 2.5 shows an example of a Figure and Figure 2.6 shows an example of a Table.

Figure 2.5. Figure example

**Table 2.1** Seismological properties of strong ground motion records

| <i>ID</i> | <i>Epicentre</i>   | <i>Year</i> | <i>Magnitude<br/>(Mw)</i> | <i>Fault<br/>Mechanism</i> | <i>Joyner-Boore<br/>Distance (km)</i> | <i>Soil Class</i> | <i>PGA<br/>(g)</i> | <i>PGV<br/>(cm/s)</i> | <i>PGD<br/>(cm)</i> |
|-----------|--------------------|-------------|---------------------------|----------------------------|---------------------------------------|-------------------|--------------------|-----------------------|---------------------|
| KYH1      | Manjil, Iran       | 1990        | 7.37                      | Strike Slip                | 12.56                                 | ZC                | 0.505              | 43.78                 | 18.96               |
| KYH2      | Morgan Hill        | 1984        | 6.19                      | Strike Slip                | 3.22                                  | ZC                | 0.343              | 28.53                 | 5.39                |
| KYH3      | Superstition Hills | 1987        | 6.54                      | Strike Slip                | 0.95                                  | ZD                | 0.451              | 77.19                 | 37.19               |
| KYH4      | Parkfield          | 1966        | 6.19                      | Strike Slip                | 9.58                                  | ZD                | 0.377              | 23.92                 | 3.85                |

Figure 2.6. Table example

## 2.12. Equations

There should be 1 line spacing between equations and the preceding and the following text (text, table, figure, etc.). The format "(X.Y)" should be used in numbering the equations. X indicates the number of the relevant First-Degree Section Number, and Y indicates the sequence number given to the equations starting from 1 in this section. For example, (2.18) indicates the 18<sup>th</sup> equation in the second chapter. The equation should be written by centering the text field and the equation number "(X.Y)" should be placed on the right edge of the text field. Long equations that do not fit on a single line can be divided at appropriate places. In this case, there should be 1 line spacing between the lines and the equation number should appear on the last line of the equation.

Examples:

$$\Delta m_{i\theta} = m_i e^2 \quad (5.1)$$

$$I_{i\theta} = \frac{mi(L_x^2 + L_y^2)}{12} \quad (5.2)$$

## 3. PRESENTATION FORMAT AND CUSTOM PAGES

### 3.1. Report Cover and Presentation Format

All project reports must be prepared in 3 copies with a transparent protective cover on the front and back and spiralized. The report language must be English. The outer cover content and layout of the report are shown in Appendix-1.

### **3.2. Approval Page**

There should be an approval page after the cover page of the report. The approval page should be prepared as shown in Appendix-2. On this page, the titles and names of the jury members must be prepared in computer environment, signatures should be in blue ink.

### **3.3. Acknowledgments Page**

Students may also include an acknowledgments page in their report. The acknowledgments page should be placed after the approval page and should be as shown in Appendix-3.

### **3.4. Abstract**

The abstract should be prepared as shown in Appendix-4. The abstract should be placed after the approval and acknowledgments pages. The purpose, scope, methodology and conclusions of the project work should be clearly and concisely indicated in the abstract.

### **3.5. Table of Contents**

The Table of Contents should be prepared in accordance with the sample given provided in Appendix-5. All section and subsection headings, references (appendices, if any) in the report must be given in the Table of Contents. Each title used in the report should be given exactly as it is in the Table of Contents without any change. The first page of the index should have the title "TABLE OF CONTENTS", and if the index is longer than one page, this title should not be repeated on other pages. The Table of Contents can be prepared using the referencing features of word processing programs such as Microsoft Word.

### **3.6. List of Figures**

The List of Figures should be prepared in accordance with the sample given in Appendix-6. If the list is longer than one page, the title should not be written on the following pages. The List of Figures can be prepared using the referencing features of word processing programs such as Microsoft Word.

### **3.7. List of Tables**

The List of Tables should be prepared in accordance with the sample given in Appendix-7. If the list is longer than one page, the title should not be written on the next page. The List of Tables can be prepared using the referencing features of word processing programs such as Microsoft Word.

### **3.8. Symbols and Abbreviations**

If the report contains symbols and abbreviations that cannot be easily understood by the reader, a "List of Symbols and Abbreviations" should be included. The List of Symbols and Abbreviations should be prepared in accordance with the sample given in Appendix-8. If the list is longer than one page, the title should not be written on the following page.

## **4. THE REPORT CONTENTS**

The information that should be included in the content of the report of the graduation project is briefly stated below.

- 1) Theoretical and practical knowledge of mathematics and physics, curriculum specific basic courses should be used in solving complex engineering problems in the project content.
- 2) Complex engineering problem must be defined, formulated, and solved. For this purpose, appropriate analysis and modeling methods should be applied.
- 3) A complex process must be designed to meet specific requirements under realistic constraints and conditions. Modern techniques should be utilized for this purpose.
- 4) It is required to develop/select and use modern techniques and tools necessary for the analysis and solution of the complex problem.
- 5) In order to study complex problems, it is necessary to design experiments, conduct experiments, collect data and analyze the results.
- 6) Effective report writing. Written reports should be written in fluent language. They should cover elements related to design and construction.
- 7) Include engineering standards used throughout the project.

The report should mainly consist of six sections;

- a) Title Page/Custom pages
- b) Report Text
- c) Project Plan
- d) References
- e) Appendixes
- f) Checklist

Each section should consist of various subsections, up to a maximum of 3 levels, if necessary.

#### **4.1. Title Page/Custom pages**

- |                               |               |              |
|-------------------------------|---------------|--------------|
| 1. Title Page                 | (Appendix-1)  | Mandatory    |
| 2. Approval                   | (Appendix-2)  | Mandatory    |
| 3. Acknowledgment             | (Appendix-3)  | Optional     |
| 4. Abstract                   | (Appendix-4)  | Mandatory    |
| 6. Table of Contents          | (Appendix-5)  | Mandatory    |
| 7. List of Figures            | (Appendix-6)  | If Necessary |
| 8. List of Tables             | (Appendix-7)  | If Necessary |
| 10. Symbols and Abbreviations | (Appendix-8)  | If Necessary |
| 11. References                | (Appendix-9)  | Mandatory    |
| 12. Checklist                 | (Appendix-10) | Mandatory    |

## 4.2. Report Manuscript

### 4.2.1. Introduction

The introduction, which constitutes the first part of the report, should be written under the title "INTRODUCTION". After providing the reader with preparatory information on the subject, the purpose and scope of the study should be clearly stated in this section.

In the introduction section of the graduation project report, brief general information about the project should be given,

- Purpose of the structure
- Basic characteristics (size, span, height, etc.)
- Structural features (structural system, materials used, etc.)
- Approximate cost, quantity

A paragraph on the results of the project should be added at the end of the Introduction.

### 4.2.2. Sections about the Conducted Project Work

After the "INTRODUCTION" section, the sections describing the project work should be included under appropriate headings, following the natural order of the narrative logic.

The sections of the graduation project report describing the work performed;

- Project Topic,
- Description of the work performed,
- Establishment of design criteria and related literature,
- Detailed design phases,
- Conclusion and Recommendations.

#### a) Project Topic

Explain which disciplines of civil engineering the project is related to, discuss the engineering requirements and briefly emphasize the activities to be carried out in the project.

Example: The existing highway between the cities of ... cannot meet the current transportation needs, so a new highway route needs to be determined and constructed.

#### b) Problem Statement

It is necessary to identify and define a problem that meets the definition of a complex problem by making observations on the existing system.

**Complex Problem:** A broad problem that requires some or all of the following to solve: in-depth engineering knowledge, abstract thinking, creative use of fundamental engineering principles and research-based knowledge of leading

topics in the relevant engineering discipline, development of a new model or method, involving a variety of stakeholders with different requirements, and having significant consequences in a variety of contexts.

**Example:** In the region ....., drinking water supply requirement is met by the ... dam built on year ... In the last ... years, the population of the region .... has increased and ... has become .... As a result, the existing drinking water infrastructure cannot meet the needs of the region. For this reason, a new dam needs to be constructed to satisfy the required supply of the ... region for ... years. It is aimed that the elevation of the dam will be ... so that it can hold ... volume of water. The project also includes a hydroelectric power plant that can generate .... kWh of electricity. The power plant is expected to be capable of meeting .... of the region's annual electricity demand.

#### **i. Realistic constraints regarding the problem**

Realistic constraints regarding the problem should be specified here.

- Geographical conditions
- Supply of materials to be used
- Soil (geotechnical properties)
- Risk status against earthquakes and other natural disasters
- Sustainability
- Cost/budget elements
- Requirements in terms of environmental issues
- Social responsibility
- Consideration of historical and cultural assets

Example: The total area of the project is ..... m<sup>2</sup>. The soil type is ....., The region is ... km far from the ... fault and has a high earthquake hazard according to the Earthquake Hazard Map of Turkey. There is a concrete plant ... km from the construction site and ready-mixed concrete is available. There is a historical mosque building right next to the construction site. A budget of TL ... has been allocated for the measures to be taken for the protection of this structure.

#### **ii. What does sustainability involve?**

Organizations that are sensitive to sustainability create a positive impact on their environment by improving their performance while at the same time improving the economic, environmental and social conditions of the segments of society with which they are in contact.

- Environmental Legislation
- Environmental Management System - ISO 14001
- Occupational Health and Safety Management - OHSAS 18001
- Business Continuity Management - BS 25999
- Enterprise Risk Management - ISO 31000
- Enterprise Risk Management and Analysis
- Corporate Social Responsibility

### **iii. Engineering standards to be considered in the problem**

This section should specify the engineering standards within the scope of the project.

**Example:** TS-500, Turkish Building Earthquake Code, TS-498, Steel Structures Design Code.

### **c) The Literature**

In this section, it is necessary to cite the studies carried out in the past for solving the problem defined previously. The basic engineering practices and methods used in these studies should be explained, and the approaches and techniques may be useful for solving the problem should be discussed. The project design criteria will be determined with the research work carried out at this stage.

### **d) Calculations and Numerical Modeling for the Solution of the Problem**

In this section, the calculations and numerical modeling performed for the solution of the problem should be discussed.

The numerical model for the solution of the problem should be established. General information about the model should be given, solution algorithm, modeling options, load parameters, etc. should be given, and if there are assumptions, these should be explained.

### **e) The Methodology**

In this section, information about the engineering methods applied and the software utilized to solve the model should be discussed.

**Example:** Earthquake loads were applied to the numerical model of the structure using the response spectrum analysis. SAP2000 structural analysis software was utilized for this purpose.

### **f) Data Collection and Analysis**

This section should include information such as the aspects of the collected data, their purposes, from where they are gathered, the method for collecting data, their classification, and the statistical methods were used in data analysis.

### **g) Solution of the Model and Verification**

The model should be analyzed and the results obtained should be shown to be accurate. The software used for solving the model should be explained.

### **4.2.3. Summary and Conclusions**

This section, which will be titled "SUMMARY and CONCLUSIONS", should include the conclusions drawn from the project study, the difficulties encountered and those that could not be overcome, the benefits that were and could be provided as a result of the study, and recommendations for future similar or further studies based on the findings of this study.

The results should be discussed, and recommendations should be made as a conclusion. The results should be presented in terms of their implications for economics, environmental issues, sustainability, manufacturability, ethics, health, safety, social and political issues.

## **5. PROJECT PLAN**

A Gantt Chart should be prepared for the project, indicating the work packages and responsible team members.

## **6. REFERENCES**

All references utilized and/or quoted in the project work should be cited in the report and these should be given under the heading "REFERENCES". Publications not mentioned in the text should not be included in this section. The order of the references in this section should be as shown in Appendix-9. Bibliography tools in word processors such as Microsoft Word or external resource management software such as BibTeX can be used to prepare the References section.

## **7. APPENDICES**

Information and explanations, drawings, code snippets, detailed flow charts, comprehensive and detailed experimental data, sample calculations, etc., which would distract from the report context and affect continuity in reading in a negative manner, should be given in the APPENDICES section. An appropriate title should be chosen for each explanation to be included in this section and they should be presented in the order of presentation as "Appendix-1, Appendix-2, Appendix-3, .....", each starting from a separate page. Appendices should be listed in order in the Table of Contents.

## **8. THE CHECKLIST**

The checklist has been prepared to prevent format and content discrepancies in the project report. The report must be checked using this list before it is submitted to the advisor and jury members. The checklist is given in Appendix-10.



### Appendix-1: Sample Report Cover Page

It should be clearly stated that the project work covers a period of 1 year as indicated **in red** below.



## BAŞKENT UNIVERSTIY FACULTY OF ENGINEERING TERM PROJECT REPORT

< PROJECT TITLE >

< GROUP NAME >

< Name and Surname of the Students >  
< Student IDs >

|   |
|---|
| <b>Department: Civil Engineering</b>  |
| <b>Project Instructor: &lt;Title &gt; &lt; Name&gt; &lt; Surname &gt;</b>                           |
| <b>Course Code and Name: CE411 Civil Engineering Design I and CE412 Civil Engineering Design II</b> |
| <b>Project Start: &lt; Year &gt; Fall Term</b>  |
| <b>Project Duration (Semester): 2</b>   |
| <b>Report Submission Date: &lt; Year &gt; &lt; Fall / Spring &gt;</b>                               |

**Appendix-2: Sampe Approval Page**

This report has been approved by accepted by the jury whose signatures are below on ... / ... / 20...

| Title | Name Surname | Signature |
|-------|--------------|-----------|
| ..... | .....        | .....     |
| ..... | .....        | .....     |
| ..... | .....        | .....     |

### **Appendix-3: Sample Acknowledgements Page**

#### ACKNOWLEDGMENTS

We would like to thank our esteemed advisor Prof. Dr. Ahmet Yılmaz, who guided us with his valuable help and contributions throughout the study, and Prof. Dr. Ayşe Yılmaz, from whose valuable experience we benefited, as well as all our colleagues working in the laboratory and our esteemed families who never left us alone with their moral support.

(NOTE: This page is optional.)

**Appendix-4: Sample Abstract Page**

Abstract

Nowadays it is becoming important to build sustainable and natural disaster-resistant smart buildings and to meet the housing demand amid increasing population in cities. This study, which was carried out within the scope of our graduation project, deals with the design of a ... story ... m2 residential building to be built in ... province. Since the soil characteristic of the site where the building is located is ..., ground improvement work has been carried out. The structural system consists of reinforced concrete frame and shear walls. The design of this ... meter high building under earthquake and wind effects is an important problem addressed in this project.....

.....  
.....  
.....  
.....  
.....  
.....  
.....

Keywords: high-rise building, seismic design, deep foundation, ...

**Appendix-5: Sample Table of Contents Page**

**TABLE OF CONTENTS**

|  | <b>Page</b> |
|--|-------------|
| ABSTRACT.....  | i           |
| ACKNOWLEDGEMENTS.....  | ii          |
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**SYMBOLS AND ABBREVIATIONS**

| <b>Symbol / Abbreviation</b> | <b>Description</b>   |
|------------------------------|--|
| $f_j$                        | modal force vector   |
| $\Delta_j$                   | $i^{\text{th}}$ story drift                                  |
| $S_{ae}$                     | elastic spectral acceleration                                |
| $T_n$                        | fundamental vibration period                                 |
| $\rho_{i,j}$                 | modal correlation coefficient                                |
| TÜBİTAK                      | The Scientific and Technological Research Council of Türkiye |
| AFAD                         | The Disaster and Emergency Management Authority of Türkiye   |
| .....                        |  |
| .....                        |  |
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## Appendix-9: Sample References Page

### REFERENCES

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## Appendix-10: Checklist

ALWAYS CHECK THE REPORT ACCORDING TO THE LIST BELOW BEFORE SUBMISSION

| NO       | ITEM  | Control |
|----------|---|---------|
| <b>1</b> | <b>FORMAT</b>   |         |
|          | Cover page information is complete                                    |         |
|          | Abstract, Table of Contents, etc. are numbered in Roman numerals      |         |
|          | All other pages are numbered with default numbering                   |         |
|          | Pages are numbered (1, 1.1, 1.1.1, etc.)                              |         |
|          | List of Figures (titles, captions, and page numbers) is present       |         |
|          | List of Tables (titles, captions, and page numbers) is present        |         |
|          | Signs and Abv. Page (titles, description and page numbers) is present |         |
|          | Table captions are in "Table X.X Description" format                  |         |
|          | Table captions are placed on top of each table                        |         |
|          | All tables are referenced in the manuscript                           |         |
|          | Figure captions are in "Figure X.X Description" format                |         |
|          | Figure captions are placed on bottom of each table                    |         |
|          | All figures are referenced in the manuscript                          |         |
|          | Appendices are numbered   |         |
| <b>2</b> | <b>PROJECT TOPIC</b>  |         |
|          | Project subject and work carried out are explained                    |         |
| <b>3</b> | <b>STATEMENT OF PROBLEM</b>   |         |
|          | Complex problem is well identified in accordance with its definition  |         |
|          | Realistic constraints (site area, cost, etc.) are defined             |         |
|          | Engineering standards are given                                       |         |
| <b>4</b> | <b>LITERATURE SURVEY AND DESIGN CRITERIA</b>                          |         |
|          | The literature survey is comprehensive                                |         |
| <b>5</b> | <b>NUMERICAL MODELING AND DESIGN</b>                                  |         |
|          | The numerical model developed for the solution is described in detail |         |
|          | Methodology is given  |         |
|          | Acquisition of data (which data is collected and their source)        |         |
|          | Verification of design (do the results make sense?)                   |         |

|          |  |  |
|----------|--|--|
| <b>6</b> | <b>RESULTS</b>                                       |  |
|          | Obtained results are discussed                       |  |
| <b>7</b> | <b>PROJECT PLAN</b>                                  |  |
|          | Gantt Chart is given                                 |  |
| <b>8</b> | <b>REFERENCES</b>                                    |  |
|          | All references are cited as [X] in the manuscript    |  |
|          | All cited references are given in References section |  |