

ETHICS FOR STRUCTURAL ENGINEERS

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Within the engineering profession, structural engineers occupy a place of special trust. Errors by structural engineers can have devastating consequences. Ethical behavior by structural engineers is therefore of primer importance.

This course will have you study two documents that pertain to ethics for structural engineers; the National Council of Structural Engineering Associations (NCSEA) Model Code of Ethics, and the Illinois Board of Structural Engineers Standard of Professional Conduct. While the first is a model code set for adoption by state Structural Engineering Associations, and the second is only mandatory if you are a licensed Structural Engineer in Illinois, both documents are worthwhile studying to learn more about your ethical responsibilities as a structural engineer.

NCSEA Model Code of Ethics

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Fundamental Purpose

This Code of Ethics is provided as guidance for individual structural engineers, and applies to the responsible individual who provides professional services in the analysis, assessment, design, construction, or repair of buildings, bridges, and other structures.

All of the Fundamental Principles, Tenets and Guidelines should be applied in accordance with the standards of skill and care generally exercised by other structural engineers in the same locale acting under similar circumstances and conditions.

Fundamental Principles

To uphold and advance the integrity, honor and dignity of the structural engineering profession by:

1. using their knowledge and skill for the enhancement of human welfare;
2. being honest and impartial in serving with fidelity the public, their employers and clients; and
3. striving to increase the competence of practitioners and the prestige of the structural engineering profession.

Fundamental Tenets

Structural engineers:

1. use their knowledge and skill in the performance of their professional duties to make decisions in the interest of the safety, health, and welfare of the public.
2. perform services only in areas of their demonstrated competence.

3. issue public statements in an objective and honest manner.
4. act for each employer or client as faithful agents or trustees, and avoid conflicts of interest.
5. build their professional reputation on merit and compete fairly with others.
6. act in such a manner as to uphold and enhance the honor, integrity, and dignity of the structural engineering profession, without tolerance for corruption.
7. continue their professional development throughout their careers, and provide opportunities for the professional development of others.

Guidelines to Practice Under the Fundamental Tenets of Ethics

TENET 1.

Structural engineers use their knowledge and skill in the performance of their professional duties to make decisions in the interest of the safety, health, and welfare of the public.

- a. Recognize that the lives, safety, health and welfare of the general public are dependent upon engineering judgments, decisions and practices.
- b. Approve or seal only those design documents or engineering reports, reviewed or prepared in accordance with the rules and laws of the authority having jurisdiction, which are determined to be safe for public health and welfare in conformance with accepted structural engineering standards.
- c. Inform their clients or employers of the possible consequences, and notify such other authorities as may be appropriate, when their professional judgment is overruled under circumstances where the safety, health and welfare of the public are endangered.
- d. When there is knowledge or reason to believe that another person or firm may be in violation of any of the provisions of Tenet 1, consider first presenting such information to the person or firm suspected of the violation. If such action does not satisfactorily resolve the suspected violation, present such

information to the proper authority in writing and cooperate with the proper authority in furnishing such further information or assistance as may be required, without incurring a breach of this Code of Ethics.

- e. Seek opportunities to be of constructive service in civic affairs and work for the advancement of the safety, health and well-being of their communities, and the protection of the environment through the practice of sustainable development.

TENET 2.

Structural engineers perform services only in areas of their demonstrated competence.

- a. Engage in structural engineering assignments only when qualified by either education or training and by experience and examination in the field of structural engineering.
- b. Accept assignments in which certain aspects require education, training, experience, or examination outside their areas of demonstrated competence, provided their services are restricted to those aspects for which they are qualified.
- c. Affix their signatures or seals to structural engineering documents or structural engineering reports dealing with only those matters for which they are qualified by either education or training and by experience and examination.

TENET 3.

Structural engineers issue public statements in an objective and honest manner.

- a. Endeavor to extend the public knowledge of structural engineering, and avoid participating in the dissemination of inaccurate, unfair or exaggerated statements regarding structural engineering.

- b. Be objective and honest in professional reports, statements, or testimony. Include relevant and pertinent information in such reports, statements, or testimony.
- c. When serving as expert witnesses, express an engineering opinion when it is founded upon: adequate knowledge of the known conditions, a basis of technical competence, and honest conviction.
- d. When serving as peer reviewers, preferably (subject to the consent of the client) inform the design engineer of their appointment, have access to those responsible for the design, and be able to freely discuss and resolve all pertinent matters with the design engineer. The peer reviewer should not seek to provide their services for any remedial design work to be undertaken; however, the client may elect to request the peer reviewer to review the remedial design work. In the event that the design engineer should either abstain from undertaking the remedial design work or not be engaged by the client to perform these services, the client may engage the services of the peer reviewer to undertake such work.
- e. Issue no statements, criticisms, or arguments on structural engineering matters which are inspired or paid for by interested parties, unless they indicate on whose behalf the statements are made.
- f. Be dignified and honest in explaining their work and merit, and avoid acts tending to promote their own interests at the expense of the integrity, honor and dignity of the structural engineering profession.

TENET 4.

Structural engineers act for each employer or client as faithful agents or trustees, and avoid conflicts of interest.

- a. Strive to avoid conflicts of interest with employers or clients, and promptly inform employers or clients of any business association, interests, or circumstances which could influence their judgment .

- b. Refuse compensation from more than one party for the same services on a project, or for services pertaining to the same project, unless the circumstances are fully disclosed and agreed to, by all interested parties.
- c. Avoid soliciting or accepting gratuities from other parties that create a conflict of interest.
- d. When providing public service as members, advisors, or employees of a governmental body or department, avoid participating in considerations or actions with respect to services solicited or provided by them or their organization in private or public structural engineering practice.
- e. Avoid using confidential information coming to them in the course of their assignments as a means of making personal gain or profit if such action is adverse to the interests of their clients, employers or the public.
- f. Avoid accepting professional employment outside of their regular work or interest, when such activity could harm their employer or create a conflict of interest.
- g. Avoid using equipment, supplies, computer files, computer software, laboratory or office facilities, or other real or intellectual property of their employers to carry on outside private practice without the consent of their employers, or in any manner inconsistent with any lease or licensing agreements governing such use.

TENET 5.

Structural engineers build their professional reputation on merit and compete fairly with others.

- a. Avoid giving, soliciting or receiving either directly or indirectly, any political contribution, gratuity, or consideration in order to secure work.
- b. Negotiate contracts for professional services fairly and on the basis of demonstrated competence and qualifications for the type of professional service required. Disclose to the client any subcontracting, joint venturing, or out-sourcing of structural engineering services by the structural engineer.

- c. Request, propose or accept professional commissions on a contingent basis only under circumstances in which their professional judgments would not be compromised.
- d. Provide accurate representation of their academic and professional qualifications or experience.
- e. Give proper credit for structural engineering work to those contributing, and recognize the proprietary interests of others. When possible, name those responsible for designs, inventions, writings or other accomplishments.
- f. Advertise professional services in a manner that is accurate, not deliberately false or misleading. Suggested and recommended means of advertising include:
 - 1. Professional advertisements in recognized publications, and listings in rosters or directories published by responsible organizations, provided that the advertisements or listings are consistent in size and content, are in a section of the publication regularly devoted to such professional advertisements, and are accurate and not misleading with respect to the structural engineer's extent of participation in projects described.
 - 2. Professional advertisements benefitting or sponsoring charitable organizations.
 - 3. Brochures and Internet Web pages which accurately describe experience, facilities, personnel and capacity to render service, providing they are not deliberately misleading with respect to the engineer's participation in projects described.
 - 4. A statement of the structural engineers' names or the name of the firm and statement of the type of service posted on projects for services rendered.
 - 5. Preparation or authorization of descriptive articles for the lay or technical press, which are accurate. Such articles should not imply anything more than direct participation in the project described.

6. Commercial advertisements as may be published by contractors and material suppliers, containing a modest, accurate statement acknowledging the structural engineer's participation in the project, and used by permission of the structural engineer.
- g. Avoid maliciously or falsely, directly or indirectly, injuring the professional reputation, prospects, practice or employment of others, or indiscriminately criticize another's work.
- h. Decline an appointment to supplant the original structural engineer when doubt exists regarding the resolution of the outstanding matters between the client and the original structural engineer.

TENET 6.

Structural engineers act in such a manner as to uphold and enhance the honor, integrity, and dignity of the structural engineering profession, without tolerance for corruption.

- a. Act in such a manner which will uphold the honor, integrity, or dignity of the engineering profession, and avoid knowingly engaging in business or professional practices of a fraudulent, dishonest or unethical nature.
- b. Be honest in their control and spending of monies, and promote effective use of resources through open, honest, and impartial service to the public, employers, associates and clients.
- c. Be especially vigilant to maintain appropriate ethical behavior where payments of gratuities or bribes are institutionalized practices.
- d. Strive for transparency in the procurement and execution of projects. Transparency includes disclosure of names, addresses, purposes, and fees or commissions paid for all agents facilitating projects.
- e. Avoid procuring, copying, or otherwise using the computer files, computer software, or other real or intellectual property of others without the consent of the product or property owner, or in any manner inconsistent with any lease or licensing agreements governing such use.

TENET 7.

Structural engineers continue their professional development throughout their careers, and provide opportunities for the professional development of others.

- a. Strive to keep current in their specialty fields. This may be achieved by engaging in professional practice, participating in continuing education courses, reading in the technical literature, and attending professional meetings and seminars.
- b. Encourage their engineering employees to become licensed, certified, or registered.
- c. Strive to attend and present papers at professional and technical society meetings.
- d. Strive to uphold a professional structural engineering relationship between employers and employees with respect to terms of employment including technical positions, salary ranges, and benefits.

**Illinois Board of Structural Engineers Standard of Professional
Conduct**

Section 1480

TITLE 68: PROFESSIONS AND OCCUPATIONS

CHAPTER VII: DEPARTMENT OF FINANCIAL AND PROFESSIONAL
REGULATION

SUBCHAPTER b: PROFESSIONS AND OCCUPATIONS

PART 1480 THE STRUCTURAL ENGINEERING PRACTICE ACT OF 1989

SECTION 1480.210 STANDARDS OF PROFESSIONAL CONDUCT

In order to safeguard life, health and property, to promote the public welfare, and to establish and maintain a high standard of integrity in the practice of structural engineering, the following Standards of Professional Conduct shall be binding on every person holding a license as a structural engineer and on all corporations and partnerships authorized to practice structural engineering in this State.

- a) Professional Responsibility. Licensees shall be responsive to the needs of clients and employers, but shall hold paramount life, health, property and the welfare of the public.
 - 1) Licensees shall at all times recognize that their primary obligation is to protect the life, health, property and welfare of the public. If their professional judgment is overruled under circumstances where the life, health, property or welfare of the public is endangered, they shall notify their client or employer and such authority as may be appropriate (which may include the Division or other law enforcement agencies).
 - 2) Licensees shall approve and seal only those designs reviewed or prepared by them, and found to be safe for the public health, property and welfare.

- 3) Licensees shall not reveal confidential facts, data or information obtained in a professional capacity without the prior consent of the client, except as authorized or required by law.
 - 4) Licensees shall not permit the use of their name or firm's name, nor shall they be associated in business ventures with persons or firms which they have reason to believe to be engaging in fraudulent or dishonest business practices.
 - 5) Licensees having knowledge of any alleged violation of any of this Part shall cooperate with the Division, furnishing such information or assistance as may be required to conduct an investigation resulting from a complaint.
- b) Competence. Licensees shall perform services only in areas of their competence.
- 1) Licensees shall undertake assignments only when qualified by education and experience in the specific technical field of engineering involved.
 - 2) Licensees shall not affix their signature or seal to any plans or documents dealing with subject matter in which they lack competence, nor to any plan or document not prepared or reviewed under their direct supervisory control.
 - 3) Licensees may accept an assignment outside of their fields of competence to the extent that their services are restricted to those phases of the project in which they are qualified, and to the extent that all other phases of the project will be performed by licensees qualified in those phases.

- c) Professional Integrity. Licensees shall issue professional statements in an objective and truthful manner.
- 1) Licensees shall be completely objective and truthful in all structural engineering reports, statements or testimony.
 - 2) Licensees may express publicly a professional opinion on technical subjects only when it is founded upon adequate knowledge of the facts and a background of competence in the subject matter.
 - 3) A licensee, when acting as a representative of an individual or issue no statements, criticisms, or arguments on structural engineering matters without first prefacing those comments by explicitly identifying on whose behalf the comments will be made. When the licensee is acting as a consultant, expressing a professional opinion, such opinion shall be prefaced by complete personal identification as a consultant, without necessarily naming the client. The licensee shall reveal any personal interest in the matter.
- d) Conflict of Interest. Licensees shall act in professional matters for each employer or client as faithful agents of trustees and shall avoid conflicts of interest.
- 1) Licensees shall conscientiously avoid conflicts of interest with their employers or clients. Whenever conflicts of interest appear unavoidable, however, licensees shall disclose promptly to their employers or clients any business association, interest or circumstance that may influence judgment or quality of services.

- 2) Licensees shall not accept compensation, financial or other, from more than one party for services on a project or for services pertaining to a project unless the licensee makes full disclosure and receives consent of all interested parties.
 - 3) Licensees shall not solicit or accept financial or other valuable consideration from any material supplier or equipment supplier for specifying the supplier's products except when the licensee is a known employee or agent of the supplier.
 - 4) Licensees shall not solicit or accept gratuities, directly or indirectly, from any contractor, architect, engineer or other party dealing with the licensee's employer or client in connection with work for which the licensee is responsible.
 - 5) Licensees shall not solicit or accept a professional contract from a governmental body on which a principal or officer of their firm or organization serves as a member. Conversely, licensees serving as members, advisors or employees of a governmental body or department, who are the principals or employees of a private concern, shall not participate in decisions with respect to professional services solicited or provided by them or their organization.
- e) Employment Solicitation. Licensees shall avoid improper solicitation of professional employment.
- 1) Licensees shall not offer to pay, either directly or indirectly, any commission, political contribution, gift or other consideration in order to secure professional assignments.

- 2) Licensees shall not falsify or permit misrepresentation of their, or their associates' academic or professional qualifications. They shall not misrepresent or exaggerate their degree of responsibility in or for the subject matter of prior assignments. Brochures or solicitation of employment shall not misrepresent pertinent facts concerning employers, employees, associates, joint ventures or past accomplishments with the intent or purpose of enhancing their qualifications and/or their work.

(Source: Amended at 34 Ill. Reg. 5669, effective March 30, 2010)