

ASCE Code of Ethics

Ethics in Action ?

Citicorp Center, one of top 10 skyscrapers in NYC. Completed in 1977.

In 1978, based on a conversation with an engineering student, the structural engineer realizes that wind loads were miscalculated and the building might be structurally unsound. This might be okay, except...

Original design called for welded joints, but during construction, the contractor switched to bolted joints. Which maybe, possibly might be okay, except...

Rather than use a 2:1 safety factor for the trusses, a 1:1 safety factor was chosen...



Ethics in Action ?

**Oh, and this was discovered in June,
right at the start of hurricane
season...**

**And, naturally, here comes Hurricane
Ella toward NYC.**



Engineering Ethics

Engineering ethics is (1) the study of moral issues and decisions confronting individuals and organizations involved in engineering and (2) the study of related questions about moral conduct, character, ideals and relationships of peoples and organizations involved in technological development (Martin and Schinzinger, *Ethics in Engineering*).

The ASCE Code of Ethics

Fundamental Principles

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

- ▶ **Using their knowledge and skill for the enhancement of human welfare and the environment;**
- ▶ **Being honest and impartial and serving with fidelity the public, their employers and clients;**
- ▶ **Striving to increase the competence and prestige of the engineering profession, and;**
- ▶ **Supporting the professional and technical societies of their disciplines.**

The ASCE Code of Ethics

Fundamental Canons

Canon 1

- ▶ **Engineers shall hold paramount the safety, health and welfare of the public and shall strive to comply with the principles of sustainable development in the performance of their professional duties.**

Canon 2

- ▶ **Engineers shall perform services only in areas of their competence.**

The ASCE Code of Ethics

Fundamental Canons

Canon 3

- ▶ **Engineers shall issue public statements only in an objective and truthful manner.**

Canon 4

- ▶ **Engineers shall act in professional matters for each employer or client as faithful agents or trustees, and shall avoid conflicts of interest.**

The ASCE Code of Ethics

Fundamental Canons

Canon 5

- ▶ **Engineers shall build their professional reputation on the merits of their services and shall not compete unfairly with others.**

Canon 6

- ▶ **Engineers shall act in such a manner as to uphold and enhance the honor, integrity, and dignity of the engineering profession and shall act with zero tolerance for bribery, fraud, and corruption.**

The ASCE Code of Ethics

Fundamental Canons

Canon 7

- ▶ **Engineers shall continue their professional development through their careers, and shall provide opportunities for the professional development of those engineers under their supervision.**

Canon 8

- ▶ **Engineers shall, in all matters related to their profession, treat all persons fairly and encourage equitable participation without regard to gender or gender identity, race, national origin, ethnicity, religion, age, sexual orientation, disability, political affiliation, or family, marital, or economic status.**

CANON 1.

- ▶ **Engineers shall hold paramount the safety, health and welfare of the public and shall strive to comply with the principles of sustainable development in the performance of their professional duties.**
 - Engineers shall recognize that the lives, safety, health and welfare of the general public are dependent upon engineering judgments, decisions and practices incorporated into structures, machines, products, processes and devices.
 - Engineers shall approve or seal only those design documents, reviewed or prepared by them, which are determined to be safe for public health and welfare in conformity with accepted engineering standards.
 - Engineers whose professional judgment is overruled under circumstances where the safety, health and welfare of the public are endangered, or the principles of sustainable development ignored, shall inform their clients or employers of the possible consequences.

CANON 1. (cont)

- ▶ **Engineers shall hold paramount the safety, health and welfare of the public and shall strive to comply with the principles of sustainable development in the performance of their professional duties.**
 - Engineers who have knowledge or reason to believe that another person or firm may be in violation of any of the provisions of Canon 1 shall present such information to the proper authority in writing and shall cooperate with the proper authority in furnishing such further information or assistance as may be required.
 - Engineers should 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.
 - Engineers should be committed to improving the environment by adherence to the principles of sustainable development so as to enhance the quality of life of the general public.

CANON 2.

- ▶ **Engineers shall perform services only in areas of their competence.**
 - Engineers shall undertake to perform engineering assignments only when qualified by education or experience in the technical field of engineering involved.
 - Engineers may accept an assignment requiring education or experience outside of their own fields of competence, provided their services are restricted to those phases of the project in which they are qualified. All other phases of such project shall be performed by qualified associates, consultants, or employees.
 - Engineers shall not affix their signatures or seals to any engineering plan or document dealing with subject matter in which they lack competence by virtue of education or experience or to any such plan or document not reviewed or prepared under their supervisory control.

CANON 3.

- ▶ **Engineers shall issue public statements only in an objective and truthful manner.**
 - Engineers should endeavor to extend the public knowledge of engineering and sustainable development, and shall not participate in the dissemination of untrue, unfair or exaggerated statements regarding engineering.
 - Engineers shall be objective and truthful in professional reports, statements, or testimony. They shall include all relevant and pertinent information in such reports, statements, or testimony.
 - Engineers, when serving as expert witnesses, shall express an engineering opinion only when it is founded upon adequate knowledge of the facts, upon a background of technical competence, and upon honest conviction.

CANON 3. (cont)

- ▶ **Engineers shall issue public statements only in an objective and truthful manner.**
 - Engineers shall issue no statements, criticisms, or arguments on engineering matters which are inspired or paid for by interested parties, unless they indicate on whose behalf the statements are made.
 - Engineers shall be dignified and modest in explaining their work and merit, and will avoid any act tending to promote their own interests at the expense of the integrity, honor and dignity of the profession.

CANON 4.

- ▶ **Engineers shall act in professional matters for each employer or client as faithful agents or trustees, and shall avoid conflicts of interest.**
 - Engineers shall avoid all known or potential conflicts of interest with their employers or clients and shall promptly inform their employers or clients of any business association, interests, or circumstances which could influence their judgment or the quality of their services.
 - Engineers shall not accept compensation from more than one party for services on the same project, or for services pertaining to the same project, unless the circumstances are fully disclosed to and agreed to, by all interested parties.
 - Engineers shall not solicit or accept gratuities, directly or indirectly, from contractors, their agents, or other parties dealing with their clients or employers in connection with work for which they are responsible.

CANON 4. (cont)

- ▶ **Engineers shall act in professional matters for each employer or client as faithful agents or trustees, and shall avoid conflicts of interest.**
 - Engineers in public service as members, advisors, or employees of a governmental body or department shall not participate in considerations or actions with respect to services solicited or provided by them or their organization in private or public engineering practice.
 - Engineers shall advise their employers or clients when, as a result of their studies, they believe a project will not be successful.
 - Engineers shall not use confidential information coming to them in the course of their assignments as a means of making personal profit if such action is adverse to the interests of their clients, employers or the public.
 - Engineers shall not accept professional employment outside of their regular work or interest without the knowledge of their employers.

CANON 5.

- ▶ **Engineers shall build their professional reputation on the merit of their services and shall not compete unfairly with others.**
 - Engineers shall not give, solicit or receive either directly or indirectly, any political contribution, gratuity, or unlawful consideration in order to secure work, exclusive of securing salaried positions through employment agencies.
 - Engineers should negotiate contracts for professional services fairly and on the basis of demonstrated competence and qualifications for the type of professional service required.
 - Engineers may request, propose or accept professional commissions on a contingent basis only under circumstances in which their professional judgments would not be compromised.

CANON 5. (cont)

- ▶ **Engineers shall build their professional reputation on the merit of their services and shall not compete unfairly with others.**
 - Engineers shall not falsify or permit misrepresentation of their academic or professional qualifications or experience.
 - Engineers shall give proper credit for engineering work to those to whom credit is due, and shall recognize the proprietary interests of others. Whenever possible, they shall name the person or persons who may be responsible for designs, inventions, writings or other accomplishments.

CANON 5. (cont)

- ▶ **Engineers shall build their professional reputation on the merit of their services and shall not compete unfairly with others.**
 - Engineers may advertise professional services in a way that does not contain misleading language or is in any other manner derogatory to the dignity of the profession. Examples of permissible advertising are as follows:
 - Professional cards in recognized, dignified publications, and listings in rosters or directories published by responsible organizations, provided that the cards or listings are consistent in size and content and are in a section of the publication regularly devoted to such professional cards.
 - Brochures which factually describe experience, facilities, personnel and capacity to render service, providing they are not misleading with respect to the engineer's participation in projects described.
 - Display advertising in recognized dignified business and professional publications, providing it is factual and is not misleading with respect to the engineer's extent of participation in projects described.

CANON 5. (cont)

- ▶ **Engineers shall build their professional reputation on the merit of their services and shall not compete unfairly with others.**
 - Engineers may advertise professional services in a way that does not contain misleading language or is in any other manner derogatory to the dignity of the profession. Examples of permissible advertising are as follows:
 - A statement of the engineers' names or the name of the firm and statement of the type of service posted on projects for which they render services.
 - Preparation or authorization of descriptive articles for the lay or technical press, which are factual and dignified. Such articles shall not imply anything more than direct participation in the project described.
 - Permission by engineers for their names to be used in commercial advertisements, such as may be published by contractors, material suppliers, etc., only by means of a modest, dignified notation acknowledging the engineers' participation in the project described. Such permission shall not include public endorsement of proprietary products.

CANON 5. (cont)

- ▶ **Engineers shall build their professional reputation on the merit of their services and shall not compete unfairly with others.**
 - Engineers shall not maliciously or falsely, directly or indirectly, injure the professional reputation, prospects, practice or employment of another engineer or indiscriminately criticize another's work.
 - Engineers shall not use equipment, supplies, laboratory or office facilities of their employers to carry on outside private practice without the consent of their employers.

CANON 6.

- ▶ **Engineers shall act in such a manner as to uphold and enhance the honor, integrity, and dignity of the engineering profession and shall act with zero-tolerance for bribery, fraud, and corruption.**
 - Engineers shall not knowingly engage in business or professional practices of a fraudulent, dishonest or unethical nature.
 - Engineers shall be scrupulously honest in their control and spending of monies, and promote effective use of resources through open, honest and impartial service with fidelity to the public, employers, associates and clients.
 - Engineers shall act with zero-tolerance for bribery, fraud, and corruption in all engineering or construction activities in which they are engaged.

CANON 6. (cont)

- ▶ **Engineers shall act in such a manner as to uphold and enhance the honor, integrity, and dignity of the engineering profession and shall act with zero-tolerance for bribery, fraud, and corruption.**
 - Engineers should be especially vigilant to maintain appropriate ethical behavior where payments of gratuities or bribes are institutionalized practices.
 - Engineers should 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.
 - Engineers should encourage the use of certifications specifying zero-tolerance for bribery, fraud, and corruption in all contracts.

CANON 7.

- ▶ **Engineers shall continue their professional development throughout their careers, and shall provide opportunities for the professional development of those engineers under their supervision.**
 - Engineers should keep current in their specialty fields by engaging in professional practice, participating in continuing education courses, reading in the technical literature, and attending professional meetings and seminars.
 - Engineers should encourage their engineering employees to become registered at the earliest possible date.
 - Engineers should encourage engineering employees to attend and present papers at professional and technical society meetings.
 - Engineers shall uphold the principle of mutually satisfying relationships between employers and employees with respect to terms of employment including professional grade descriptions, salary ranges, and fringe benefits.

CANON 8.

- ▶ **Engineers shall, in all matters related to their profession, treat all persons fairly and encourage equitable participation without regard to gender or gender identity, race, national origin, ethnicity, religion, age, sexual orientation, disability, political affiliation, or family, marital, or economic status.**
 - Engineers shall conduct themselves in a manner in which all persons are treated with dignity, respect, and fairness.
 - Engineers shall not engage in discrimination or harassment in connection with their professional activities.
 - Engineers shall consider the diversity of the community, and shall endeavor in good faith to include diverse perspectives, in the planning and performance of their professional services.