

Ethical Issues in Geotechnical Engineering Business Development

Delaware Valley Geo-Institute

January 28, 2026

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Toole, T. M. “**Ethical Issues in Geotechnical Engineering Business Development.**” Invited presentation to the Delaware Valley Geo Institute, Jan. 28, 2026. (**Handout**)

Toole, T. M. “**Ethical Issues in Marketing, Bidding and Negotiating.**” Invited presentation to the Association of Highway Engineers Delaware Valley, Nov. 12, 2025.

Toole, T. M. “**Ethical Issues in Prevention through Design.**” Invited presentation to the ASCE Philadelphia Section, Oct. 7, 2025.

Toole, T. M. “**Applying the LAPELS, NSPE and ASCE Codes of Ethics to Construction Site Safety.**” Invited keynote presentation at the Louisiana Civil Engineering Conference, Kenner, LA, Sep. 24, 2025.

Toole, T. M. “**WTF PtD?**” Invited keynote presentation at the 2025 Construction Safety Conference, University of Kansas, Lawrence, KS, Aug 6, 2025.

“Who is this guy?”

- BS Civil Eng., Bucknell Univ.; MS and PhD from MIT
- *5 years active duty, US Navy Civil Engineer Corps officer**
- *5 years with publicly traded homebuilder and forensic engineering firm**
- *Three start ups (registered PE in 12 states)**
- 18 years civil engineering professor, Associate Dean at Bucknell University
- 7 years Dean, College of Engineering, University of Toledo
- Married 39 years, 2 grown children, 2 granddaughters

** Faced ethical situations involving marketing, bidding and negotiating!*

Overview

- Flyover of the PA and NJ laws/administrative codes with clear ethical content
- Flyover of the ASCE Code of Ethics
- Applying the PA and NJ laws and ASCE Code of Ethics to three hypothetical marketing, bidding, and negotiation scenarios
- PDH certificate link
- Q&A

Why are there professional codes of ethics?

- Philosophical assumptions
 - Geo professionals have special responsibilities in society
 - All humans are at least partially self-interested
 - U.S. geo professionals work in a capitalistic system and often for or with for-profit employers
 - *Successful marketing, bidding and negotiations are critical to your organization's success*
 - Codes of ethics help balance individual and organizational self-interests with what is best for society and the profession

PA Act No. 32 of 2024 amended the 1945 Engineer, Land Surveyor and Geologist Registration Law



Act No. 32 of 2024

ENGINEER, LAND SURVEYOR AND GEOLOGIST REGISTRATION LAW

Enacted from SB 403 on Friday Jun. 28, 2024

Effective 60 DAYS

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PA Engineer, Land Surveyor and Geologist Registration Law

- For the purposes of this subsection, the code of ethics is as follows:
- It shall be considered unprofessional and inconsistent with honorable and dignified bearing for a person who is a professional engineer:
- (1) To act for the person's client or employer in professional matters otherwise than as a faithful agent or trustee, or to accept any remuneration other than the person's stated recompense for services rendered.
- (2) To attempt to injure falsely or maliciously, directly or indirectly, the professional reputation, prospects or business of anyone.
- (3) To attempt to supplant another engineer ... after definite steps have been taken toward the other's employment.
- (4) To compete with another engineer ... for employment by the use of unethical practices.

PA Engineer, Land Surveyor and Geologist Registration Law

- (5) To review the work of another engineer ... for the same client, except with the knowledge of that engineer ... or unless the connection of that engineer ...with the work has terminated.
- (6) To attempt to obtain or render technical services or assistance without fair and just compensation commensurate with the services rendered: Provided, however, the donation of the services to a civic, charitable, religious or eleemosynary organization shall not be deemed a violation.
- (7) To advertise in self-laudatory language, or in any other manner, derogatory to the dignity of the profession.
- (8) To attempt to practice in any field of engineering ... in which the registrant is not proficient.
- (9) To use or permit the use of the person's professional seal on work over which the person was not in responsible charge.
- (10) To aid or abet any person in the practice of engineering ... not in accordance with the provision of this act or prior laws.

Pennsylvania Code



[Title 49 Contents](#) [Search](#) [Print](#) [Full Screen](#)

[Title 49](#) ▶ [Chapter 37](#) 

CHAPTER 37. STATE REGISTRATION BOARD FOR PROFESSIONAL ENGINEERS, LAND SURVEYORS AND GEOLOGISTS

GENERAL PROVISIONS

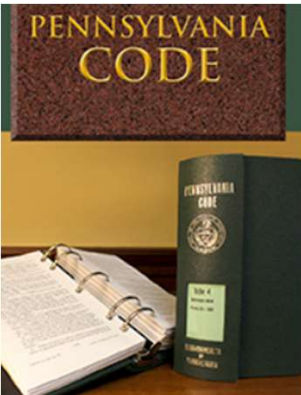
Sec.

- 37.1. [Definitions.](#)
- 37.2. [Rules governing Board activities and proceedings.](#)

ORGANIZATION AND PROCEDURE

- 37.11. [Meetings of the Board.](#)
- 37.12. [Election of Board officers.](#)
- 37.13. [\[Reserved\].](#)
- 37.14. [\[Reserved\].](#)
- 37.15. [\[Reserved\].](#)

QUALIFICATIONS FOR LICENSURE




PENNSYLVANIA CODE

COMMONWEALTH OF PENNSYLVANIA

No statutes or acts will be found at this website.

The *Pennsylvania Code* website reflects the *Pennsylvania Code* changes effective through 55 Pa.B. 7688 (November 1, 2025).



Pennsylvania Code 37.81 Misconduct

Excerpt from the Pennsylvania Code, Chapter 37

Downloaded on 1/23/2026 from

<https://www.pacodeandbulletin.gov/Display/pacode?file=/secure/pacode/data/049/chapter37/s37.81.html&d=reduce>

DISCIPLINARY PROCESS AND PROCEDURES

§ 37.81. Misconduct.

A professional engineer, professional land surveyor or professional geologist who is found guilty by the Board of gross negligence, incompetency or misconduct in the practice of engineering, land surveying or geology or of a violation of the Code of Ethics of the profession of engineering or land surveying is subject to disciplinary action under section 4(g) of the act (63 P. S. § 151(g)). Misconduct in the practice of engineering, land surveying or geology includes the following:

Pennsylvania Code 37.81 Misconduct

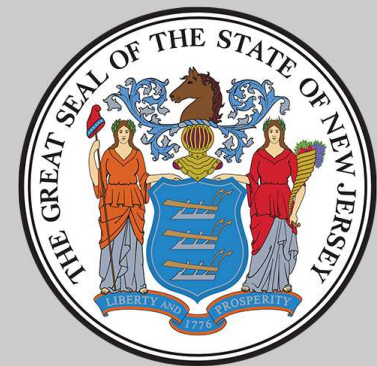
- (1) Being convicted of a criminal offense such as extortion, bribery or fraud or entry of a plea of nolo contendere to a charge thereof for conduct relating to the practice of engineering, land surveying or geology.
- (2) Being unable to practice engineering, land surveying or geology with reasonable skill and safety by reason of drunkenness, use of controlled substances, chemicals or other types of inhibiting materials, or as a result of a mental or physical incapacity which prevents the practice of engineering, land surveying or geology.
- (3) Failing to exercise supervision over a person who is authorized by the employer to practice engineering, land surveying or geology only under the supervision of a professional engineer, professional land surveyor or professional geologist.
- (4) Delegating responsible charge to an individual who the professional engineer, professional land surveyor or professional geologist knows or has reason to know is not qualified by training or experience to personally and independently engage in and be entrusted with the work involved in the practice of engineering, land surveying or geology.

Pennsylvania Code 37.81 Misconduct

- (5) Being convicted of a felony in a state or Federal court or being convicted of a misdemeanor in the practice of engineering, land surveying or geology. As used in this paragraph, the term “convicted” includes a finding or verdict of guilt, an admission of guilt or a plea of nolo contendere.
- (6) Making misleading, deceptive, untrue or fraudulent representations in the practice of engineering, land surveying or geology.
- (7) Practicing fraud or deceit in obtaining a license to practice engineering, land surveying or geology.
- (8) Submitting a false or deceptive biennial registration to the Board.
- (9) Reviewing on behalf of a public entity or an agency of government plans on which the individual performing the review, or a member or employee of the individual’s firm, has participated in any manner, including an advisory capacity. A violation of the act of October

New Jersey Administrative Code 13:40-3.5

- TITLE 13. LAW AND PUBLIC SAFETY
- CHAPTER 40. STATE BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS
- SUBCHAPTER 3. PROHIBITED ACTIONS; EXEMPTIONS; STANDARDS OF PRACTICE; MISCONDUCT



New Jersey Administrative Code 13:40-3.5

(a) Misconduct in the practice of professional engineering or professional land surveying shall include, without limitation:

- 1. Acting for his or her client or employer in professional matters otherwise than as a faithful agent or trustee; accepting any remuneration other than his or her stated recompense for services rendered.
- 2. Disregarding the safety, health and welfare of the public in the performance of his or her professional duties: preparing or signing and sealing plans, surveys or specifications which are not of a safe design and/or not in conformity with accepted standards. If the client or employer insists on such conduct, the licensee shall notify the proper authorities and withdraw from further service on the project.
- 3. Advertising in violation of N.J.A.C. 13:40-3.3.
- 4. Engaging in any activity that involves him or her in a conflict of interest, including without limitation:

New Jersey Administrative Code 13:40-3.3

4. A copy of each advertisement shall be retained by each professional engineer and land surveyor who is a principal, partner or officer of a professional business entity, for a period of three years from the date of the last authorized publication or dissemination of the advertisement and shall be made available for review upon request by the Board.
5. Any professional engineer, land surveyor or professional business entity that uses an advertisement containing false or misleading information, including claims of superiority that cannot be substantiated, or that fails to meet the requirements set forth in this subsection shall be deemed to be engaged in professional misconduct.

New Jersey Administrative Code 13:40-3.5

- 5. Affixing his or her signature and seal to any plans, specifications, plats or reports or surveys which were not prepared by him or her or under his or her supervision by his or her employees or subordinates.
- 6. Failure to comply with Federal, state or local laws, rules or regulations relating to the practice of the profession.
- 7. Permitting or allowing any person not appropriately licensed pursuant to N.J.S.A. 45:8-27 et seq. or this chapter to act for or on behalf of the licensee as his representative, surrogate or agent while appearing before any public or private body for the purpose of rendering professional engineering or professional land surveying services.
- 8. Failure to determine and document the identity of the client prior to commencing any work. All correspondence, contracts, bills shall be addressed to that client, unless expressly directed otherwise, in writing, by the client.

New Jersey Administrative Code 13:40-3.5

- 9. Failure to keep a client reasonably informed about the status of a matter and promptly comply with reasonable requests for information.
- 10. Failure to explain a matter to the extent reasonably necessary to permit the client to make informed decisions.
- 11. Failure of a licensee to respond in writing within 30 days to a written communication from the State Board of Professional Engineers and Land Surveyors with respect to any investigative inquiry relating to the possible violation of any statute or regulation administered by the Board.
- 12. Rendering engineering or land surveying services and/or professional opinions when not qualified by training, education and experience in the specific discipline of professional engineering and/or professional land surveying that is involved.
- 13. Engaging in any activity which results in suspension, revocation or surrender of a professional license or certification in another jurisdiction.

Introduction to the ASCE Code of Ethics

- Posted online
- History
 - First promulgated in 1914
 - Current version was adopted October 2020
 - Previous versions had format similar to other engineering societies' codes
- Current structure: Preamble + obligations to 5 sets of stakeholders
 - Society
 - Natural and built environment
 - Profession
 - Clients and employers
 - Peers

PREAMBLE

Members of The American Society of Civil Engineers conduct themselves with integrity and professionalism, and above all else protect and advance the health, safety, and welfare of the public through the practice of Civil Engineering.

Engineers govern their professional careers on the following fundamental principles:

- create safe, resilient, and sustainable infrastructure;
- treat all persons with respect, dignity, and fairness in a manner that fosters equitable participation without regard to personal identity;
- consider the current and anticipated needs of society; and
- utilize their knowledge and skills to enhance the quality of life for humanity.

All members of The American Society of Civil Engineers, regardless of their membership grade or job description, commit to all of the following ethical responsibilities. In the case of a conflict between ethical responsibilities, the five stakeholders are listed in the order of priority. There is no priority of responsibilities within a given stakeholder group with the exception that 1a. takes precedence over all other responsibilities. ¹

1. SOCIETY

Engineers:

- a. first and foremost, protect the health, safety, and welfare of the public;
- b. enhance the quality of life for humanity;
- c. express professional opinions truthfully and only when founded on adequate knowledge and honest conviction;
- d. have zero tolerance for bribery, fraud, and corruption in all forms, and report violations to the proper authorities;
- e. endeavor to be of service in civic affairs;
- f. treat all persons with respect, dignity, and fairness, and reject all forms of discrimination and harassment;
- g. acknowledge the diverse historical, social, and cultural needs of the community, and incorporate these considerations in their work;
- h. consider the capabilities, limitations, and implications of current and emerging technologies when part of their work; and
- i. report misconduct to the appropriate authorities where necessary to protect the health, safety, and welfare of the public.

2. NATURAL AND BUILT ENVIRONMENT

Engineers:

- a. adhere to the principles of sustainable development;
- b. consider and balance societal, environmental, and economic impacts, along with opportunities for improvement, in their work;
- c. mitigate adverse societal, environmental, and economic effects; and
- d. use resources wisely while minimizing resource depletion.

3. PROFESSION

Engineers:

- a. uphold the honor, integrity, and dignity of the profession;
- b. practice engineering in compliance with all legal requirements in the jurisdiction of practice;
- c. represent their professional qualifications and experience truthfully;
- d. reject practices of unfair competition;
- e. promote mentorship and knowledge-sharing equitably with current and future engineers;
- f. educate the public on the role of civil engineering in society; and
- g. continue professional development to enhance their technical and non-technical competencies.

4. CLIENTS AND EMPLOYERS

Engineers:

- a. act as faithful agents of their clients and employers with integrity and professionalism;
- b. make clear to clients and employers any real, potential, or perceived conflicts of interest;
- c. communicate in a timely manner to clients and employers any risks and limitations related to their work;
- d. present clearly and promptly the consequences to clients and employers if their engineering judgment is overruled where health, safety, and welfare of the public may be endangered;
- e. keep clients' and employers' identified proprietary information confidential;
- f. perform services only in areas of their competence; and
- g. approve, sign, or seal only work products that have been prepared or reviewed by them or under their responsible charge.

5. PEERS

Engineers:

- a. only take credit for professional work they have personally completed;
- b. provide attribution for the work of others;
- c. foster health and safety in the workplace;
- d. promote and exhibit inclusive, equitable, and ethical behavior in all engagements with colleagues;
- e. act with honesty and fairness on collaborative work efforts;
- f. encourage and enable the education and development of other engineers and prospective members of the profession;
- g. supervise equitably and respectfully;
- h. comment only in a professional manner on the work, professional reputation, and personal character of other engineers; and
- i. report violations of the Code of Ethics to the American Society of Civil Engineers.

Which comes first: capability or contracts?

- Your firm's strategic plan includes expanding into a new technical area. The VP for Business Development wants to develop marketing materials and start seeking work in the area before the firm hires new employees with the expertise needed to complete the projects that will be pursued.
- Will this be ethical?

Which comes first: capability or contracts?

PA Engineer, Land Surveyor and Geologist Registration Law

- (8) To attempt to practice in any field of engineering, land surveying or geology in which the registrant is not proficient.

Which comes first: capability or contracts?

Pennsylvania Code 37.81 Misconduct

(6) Making misleading, deceptive, untrue or fraudulent representations in the practice of engineering, land surveying or geology.

Which comes first: capability or contracts?

New Jersey Administrative Code 13:40-3.5

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Which comes first: capability or contracts?

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Is it ethical to withhold facts or speak ambiguously when bidding and negotiating?

- A contractor is bidding a heavy highway project which has a significant deep drainage component. Having self-performed deep drainage work on several previous projects, the contractor estimates the drainage work for his bid, but also solicits pricing from drainage subcontractors. Several subcontractor bids are received, all 15% or higher than the bidding contractor's estimate.
- The contractor includes his drainage work estimate in his submitted bid and is awarded the project. The drainage subcontractors all call to congratulate the contractor and ask if they were going to get the drainage subcontract. The contractor tells each one they need to submit a revised bid that is at least 20% lower than their initial bid if they want a shot at the project. One bidder does this and is awarded the drainage subcontract.
- Were the general contractor's actions ethical?

Is it ethical to withhold facts or speak ambiguously when bidding and negotiating?

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What is your role in site safety?

- You work for a geotechnical consulting firm that is submitting a proposal to design the foundation for a new large factory. You know the project owner is very committed to site safety.
- During the proposal stage, the lead A/E's representative asks if your firm will be willing to consider design review suggestions by the owner, general contractor, or foundation contractor that could reduce construction hazards in your firm's design.
- You know your firm's insurance carrier has issued written guidance against being involved in any discussions about site safety.
- What do you do?

What is your role in site safety?

PA Engineer, Land Surveyor and Geologist Registration Law

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- d. have zero tolerance for bribery, fraud, and corruption in all forms, and report violations to the proper authorities;
- e. endeavor to be of service in civic affairs;
- f. treat all persons with respect, dignity, and fairness, and reject all forms of discrimination and harassment;
- g. acknowledge the diverse historical, social, and cultural needs of the community, and incorporate these considerations in their work;

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Engineers:

- a. adhere to the principles of sustainable development;
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- b. provide attribution for the work of others;
- c. foster health and safety in the workplace;
- d. promote and exhibit inclusive, equitable, and ethical behavior in all engagements with colleagues;
- e. act with honesty and fairness on collaborative work efforts;
- f. encourage and enable the education and development of other engineers and prospective members of the profession;

Is Designing for (site) Safety a new ethical frontier?

- Codes of ethics' focus on safety conflicts with custom and practice
- Are construction and maintenance workers part of “the public”?
- Clients v. employer
- Does our fragmented design and construction process need to change?
- Can BIM and AI reduce the knowledge gap, design costs, and potential liability?

Closing

- Codes of Ethics are intended to help us balance individual and organizational self-interests with the interests of society and our profession.
- Codes of Ethics are frameworks that should guide and inspire the most principled and commendable behavior in all contexts.
- Marketing, bidding and negotiation are common activities in our profession that can easily lead us into **murky** waters.
- Codes of Ethics should lead you to critically examine and question “the way we have always done it.”

Thank you to the Delaware Valley Geo Institute leaders for this opportunity.

Best wishes for your continued successful and ethical careers.

email: tmichaeltoole@gmail.com

download (free) articles: tmichaeltoole.com
learn about designing out unnecessary hazards:
designforconstructionsafety.org



GEO-
INSTITUTE

Delaware Valley
Chapter

To obtain your Ethics PDH Certificate



OR

<https://dvgi.org/wp-content/uploads/2026/01/20260128-Meeting-PDH-Certificate.docx>