

A Civil Engineer's Risky Non-Technical Journey Through Ethics, Law, and Business
A Text for Civil Engineering Seminar At the University of Kentucky College of Engineering
by J. Richard Cheeks, PE JD

Much to my chagrin, as I continue reading the manuscript of my new book in preparation for class, I discover errors that remain after multiple attempts to identify and eliminate them from the text. I will update this ERRATA SHEET as I discover additional errors over the course of this semester.

One of the obstacles that all writers face is finding errors in the writer's own writing. The writer knows what the writer intended to write, and the writer's eyes (and brain) tend to see what should be there rather than what is there. For this reason, fresh eyes can identify these types of errors.

Each of you have a set of such fresh eyes, and each of you will be reading this material.

I will award 5 bonus points to any student this semester who identifies an error in the current manuscript that is not already cited on this ERRATA SHEET. A student may submit an error to me by email citing the location of the error and describing what the error is. In response, I will review the submitted error, and I will notify the submitting student of the outcome of my investigation by return email. If it is an error that has not been previously added to this ERRATA SHEET, I will add the error to the ERRATA SHEET with a notation of the student who identified it and the date of the addition to the ERRATA SHEET, and I will add 5 bonus points to that student's point total for the semester.

Each time I modify this ERRATA SHEET, I will upload the updated version to CANVAS, and students can track the status of identified errors by downloading this PDF from time to time either via CANVAS or from the CE-401 webpage.

ERRATA SHEET¹

1. On Page 3, the sentence that reads "Three ethical decision making case studies, *The Truesteel Affair*, *Gilbane Gold*, and *Testing Water and Ethics*, allow students to apply the ethical decision-making criteria and methods." Should be modified by changing the "and" between "Gold," and "Testing" from italics to regular font.
2. On Page 3, the sentence that reads, "The last seven weeks of the seminar focuses on legal and business issues." Should read as follows to correct singular vs plural disagreement, "The last seven weeks of the seminar focus on legal and business issues."
3. Page 51, After the headings, the first sentence is in the present tense while all other sentences in the same paragraph are in the past tense (ex. hired, had, completed, were, occurred, agreed). Plus, it does not make sense to be detailing something that has already happened in 1976 in the present tense.

"In early 1976, Crown Center Redevelopment Corporation (CCR),..., **begins** preliminary planning to build a Hyatt Regency Hotel in Kansas City, Missouri."

"In early 1976, Crown Center Redevelopment Corporation (CCR),..., **began** preliminary planning to build a Hyatt Regency Hotel in Kansas City, Missouri."

Identified by Gabrielle Dice on September 6, 2021

¹ All errata items in red have been corrected in the original manuscript. Each change is preserved here for completeness of this record. The items in black are items identified subsequent to the May 2021 revisions.

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4. Page 52. Footnote 70 uses inconsistent acronyms. Specifically, G.C.E. instead of GC and identifies the owner as "Crown Center Redevelopment Corporation" instead of the adopted acronym CCR. Change for consistency. Finally, the footnote number format is not consistent with all other footnotes. Fix.
5. Page 67, the sentence reading, "Based these and other facts, this whistle blower: " should read, "Based on these and other facts, this whistle blower: "
6. Pages 74, 75, and 76 have some formatting issues. For example, the bulleted item, "The seven cardinal virtues" is at the bottom of page 75 and the list appears at the top of page 76. Try to reformat these 3 pages, if possible, to eliminate this split.
7. On pages 77 and 78, there is a list of 7 steps to decision making. Reformat as shown below:
 1. Stop and Think
To prevent rash decisions, to be more thoughtful, and to mobilize discipline.
 - 2. Stop and Think**
To prevent rash decisions, to be more thoughtful, and to mobilize discipline.
8. On Pages 100-101, I quote several specific statements made by various people in this case "about the consequences of the dilution option." My goal is to capture the range of statements on this specific issue. If there are other direct quotes from the video that should be considered for this specific part of the analysis, please bring them forward for consideration. If I agree, I will add them to a later edition of the book, and I will award the bonus points this semester for the suggestion.
9. Page 121, the first sentence of the last paragraph, "In the Arthur Miller play, "All My Sons," the son learns that his dad has done something terribly wrong" contains a punctuation error after the word "play" where a comma is followed by a period. Remove the period.
10. Page 165, enumerated item 1. The first sentence ends "... after policy expires." This should read, "... after the policy expires."
11. Page 166, in enumerated item 4., the 3rd sentence ends with a space between the last word and the period. Remove the space.
12. Page 173, at the bottom of the page there is a numbered list, and the last item is not formatted as the others. Fix formatting.
13. Page 187, the 3rd and 4th lines of the 2nd paragraph has a subject verb agreement issue. Change "exists" in the 4th line to "exist"
14. Page 187, the first sentence under "SUMMARY OF THE CASE" is long and poorly organized. It currently reads:

The case of the Church of Barrish County occurs in a fictional U.S. location. The initial parties in the case are the Church, its Board and its building committee, and the Church's architect, Keystone Associates and Mr. Baker, Keystone's principal who also serves as the Church's Chair on their building committee, Peter Armand Keystone's project manager, and Gordon Atley, Keystone's field architect.

Revise as follows:

The case of the Church of Barrish County occurs in a fictional U.S. location. The initial parties in the case are the Church and the Church's architect, Keystone Associates. The Church acts in the case through its Board and its building committee. The architect acts through (1) Keystone's principal, Mr. Baker who also serves as the Chair for the Church's building committee, (2) Peter Armand Keystone's project manager, and (3) Gordon Atley, Keystone's field architect.

15. Page 205, 3rd paragraph says, "Each of the groups decided whether to use its information during negotiations, and if used, how do so." The last phrase should read "... how to do so." Identified by Bradley Klass on 11/19/21.

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16. Page 206, 2nd paragraph says, "When one begins pointing fingers at others, eventually someone will turn a finger on the one." This is confusing and should be modified by adding "who pointed first" to the end to read, "When one begins pointing fingers at others, eventually someone will turn a finger on the one who pointed first." Identified by Bradley Klass on 11/19/21.
17. Page 213, the second sentence under the heading "The Conflict Resolution Workshop Emulates Reality" says in relevant part, "... multiple parties, each with their own point of view, shaped by ..." There is a singular-plural disagreement between "each" and "their" Change to read, "... multiple parties, each with its own point of view, shaped by ..."
18. Page 222, the second paragraph under the heading "The Contractor" says, "In 1996, the U.S. Court of Appeals for District of Columbia ...' Insert "the" between "for" and "District"
19. Page 225, the sentence at the top of the page reads, "... pay far more later to prove get a smaller judgment or owe nothing at all." Revise to read, "... pay far more later to get a smaller judgment or owe nothing at all."
20. Page 230, the last sentence of number 3 reads "The project engineer's responsibility during the pipeline construction is:" followed by three bulleted items. This should read "The project engineer's responsibilities during the pipeline construction are:"
21. Page 235, at section 1)b.,, a sentence includes the term "designer professionals" and should be changed to "design professionals"
22. Page 235, footnote 256 has an incorrect word at the end. Contraction should be construction.
23. Page 241, the second paragraph under the heading "FRED'S POINT OF NO RETURN" reads, "Prior to that time, the cheaper components satisfied the design criteria establish by Phaust before Fred started his design." "establish" should be "established"
- 24.

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Substantive Issues for consideration

- a) Pages 45-46 has a discussion on Moral Authority based on an apparent contradiction between the De George exhaustion requirement to obtain moral permission to blow the whistle and Dr. Mintz's assertion that an employer's policy that mandates such exhaustion violates the individual's right to moral autonomy. This discussion needs to make two additional points. First, the De George criteria are not company policy mandating exhaustion, but a criterion that a prospective whistle blower should satisfy to have the moral authority to proceed with a whistle blowing action against the company. Second, moral autonomy is not an ethical concept but addresses an individual's ability to act independently of others and decide whether to abide by ethical duties and principles or not.

The last final paragraph of this section should be replaced with the following two paragraphs:

There is no contradiction between the De George exhaustion criterion and Dr. Mintz's concern that a company policy that mandates exhaustion violates an employee's right to moral autonomy. The De George criterion operates for all prospective whistle blowers to satisfy important moral and ethical duties associated with a whistle blowing decision. The presence or absence of a company policy that requires exhaustion is not relevant to applicability of the De George criterion. In addition, moral autonomy is the philosophy that recognizes an individual is self-governing or self-determining, i.e., acting independently without the influence or distortion of others. Dr. Mintz's expresses concern that a company policy can influence and distort an individual's self-determination. Furthermore, it seems clear that moral autonomy relates to the individual's conclusions about conduct, independent of ethical issues.

As we will see in upcoming chapters, Michael Josephson distinguishes core ethical values as having universal application and transcending individual choice or selection. In the realm of ethics, moral autonomy does not include an individual right to decide what is morally proper behavior. Thus, moral autonomy is not applicable to ethics, and the De George criteria requiring internal whistle blowing as a condition precedent to whistle blowing is effective toward achievement of ethical goals.

- b) Page 48, the introductory paragraph about the Korean Shopping Mall collapse currently says "The 45-minute video about the Korean Shopping Center collapse provides information about decisions that the owner of the facility made once construction began. Make no mistake that in the Korean shopping center case, a greedy owner is the central party driving this facility to its demise, but design professionals and construction professionals cooperated with that owner every step along the 5-year path to calamity." This paragraph does not clearly identify the parties involved in this project. The owner is the Sampoong Group, a developer, and no video or writing about this case identifies a separate, independent entity as the designer. It appears that the facility design originated from within the Sampoong Group. The original contractor was Woosung Construction, but when Sampoong Group changed the design from housing to mall space and from 4 to 5 above ground stories, Woosung Construction refused to implement the new design, and Sampoong fired Woosung. Sampoong then employed its own wholly owned subsidiary construction company to build the facility. The owner was the designer and the eventual builder. Design and construction professionals who worked for Sampoong and its builder implemented Sampoong's demands. The first paragraph should be changed to "The 45-minute video about the Korean Shopping Center collapse provides information about decisions that the owner (Sampoong Group) of the facility made once construction began with Woosung Construction as the primary builder for the facility. When the

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owner demanded changes in the facility use, size and weight, Sampoong Group fired Woosung Construction and gave its own construction company the construction work for the facility. Make no mistake that in the Korean shopping center case, a greedy owner is the central party driving this facility to its demise, but design professionals and construction professionals in Sampoong's employ cooperated with that owner's greed every step along the 5-year path to calamity. In essence, the owner was also the designer and the builder of the facility. Finally, the owner bribed the governmental building inspections officials in order to build the deficient structure." This is an increase of 75 words, 64 to 139 words.

- c) Page 69 relates a communication from Mr. Fred Wickman about the professional status of their whistle blower/informant. It is written, "A few weeks after that meeting, I received a note from Mr. Wickman that simply said, "I don't know." I interpreted that response to mean that the whistle blower probably is an engineer, but there is no way to know." This may not convey to intended message. If the KC Star knows that their informant is not an engineer, it would be quite easy to simply say so. I have little doubt that the KC Star actually does know who their informant is, and whether this person is or is not an engineer, but there is no way to be absolutely certain of their knowledge in the face of their denial. I suggest the following revision. "A few weeks after that meeting, I received a note from Mr. Wickman that simply said, 'I don't know.' Since KC Star probably knows their informant's professional status, I interpreted that response to mean that the whistle blower probably is an engineer, because if this person is not an engineer, what possible harm could arise from simply saying so. Nevertheless, there is no way to know in the face of the KC Star's denial off this knowledge."
- d) In Chapter 7's summary of the Gilbane Gold case, on pages 107-114, there should be some discussion added about the nature of Tom Richards' complaints being with the City rather than Z-Corp. Tom Richards wants Z-Corp to unilaterally change testing methods to a newer, more sensitive test. In essence, Tom Richards believes the current regulations are not adequate due to the specified test method and the permission for dilution. Even if Tom Richards' issues are valid, Z-Corp is the wrong entity to address them. Tom Richards should take his issues to the City of Gilbane to seek changes to the regulatory system that applies to Z-Corp and other local industries that generate heavy metals in their wastewater effluent. Consider adding this point to Chapter 7.
- e) On Page 145, there is a reference to ASFE's **Recommended Practices for Design Professionals Engaged as Experts in the Resolution of Construction Industry Disputes**. These ethical guidelines have been adopted by at least 25 professional societies, including ASCE. It is available from ASFE, 8811 Colesville Road, Suite G106, Silver Spring, Md. 20910. Expand this slightly to better identify this publication. Could replace existing FN 176 which appears to be redundant with FN 175 with a new FN 176 to cite this publication.
- f) Chapter 10 starts with a discussion of risk in construction, and during class the previous week, I spend a considerable amount of time making the point that each person (and company) faces risk that is unavoidable, and the key to long term success is risk management. I suggest an introductory paragraph on page 171 at the beginning of the **INTRODUCTION** to transition into the next section on **RISK IN CONSTRUCTION** as follows.

Individuals and organizations face unavoidable risk. They can transfer some risk to others with purchased insurance and carefully crafted risk transfer contract devices such as indemnity or limitation of liability. However, regardless of these risk transfer devices, each individual and each organization must also retain risk. Their long-term success depends on how well they manage this risk.

There is no magic formula or universal risk management solution because the manner in which a person or organization chooses to manage risks depends upon that person or organization's tolerance for risk. Some individuals and organizations can tolerate higher levels of risk than

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others. Some are risk takers while others are risk averse. Furthermore, an individual's or organization's tolerance for risk varies depending upon the nature of the specific risk.

Finally, risk tolerance depends on who the risk impacts. When the person or organization assessing a risk is the only party vulnerable to the risk, a higher risk tolerance may be appropriate in accordance with that person's risk assessment. However, when the risk affects clients, the public, or other stakeholders, even a risk tolerant person should become risk averse, especially when those other affected entities cannot participate in the risk tolerance and risk allocation decision making. This is the situation that usually exists for individuals and organizations working within the construction industry.

- g) Chapter 13, page 221, there is an itemized discussion of the reasons the architect is the primary problem maker in the case. Add to this discussion the fact that the architect procured geotechnical engineering services for the project using competitive bidding. Also, revisit the discussion of QBS/Competitive bidding in Chapter 1 relative to the future application of the principle in the CRW.
- h)