

Civil Engineering Writing Project - Language Unit 8

E-MAIL IN PROFESSIONAL PRACTICE

What do you need to know about effective e-mail in civil engineering practice?

E-mail is ubiquitous in engineering workplaces. It has many benefits, but it is also dangerous when it is misused. This unit describes e-mails from the perspective of practicing engineers and provides specific tips for effective e-mail use.

Benefits of e-mail

- **Fast transmission:** E-mail has a fast mode of transmission, but unlike a phone call or face-to-face meeting, it allows the recipient time to review relevant documents, calculations, or background prior to responding.
- **Documentation:** Oral discussions and decisions can be documented in e-mail, and participants can refer back for exact details whenever they need to.
- **Planning and Review:** E-mail allows writers time to plan and review their words before transmitting them, potentially avoiding angry confrontations or misunderstandings that result from speaking spontaneously in the heat of the moment.
- **Multiple recipients:** E-mails can be sent to multiple recipients so all receive the same information at once.

Dangers of e-mail

- **Hastiness :** Because e-mail has a fast mode of transmission, some people believe they must also hurry when they write and read e-mails. But hurrying with e-mail can just mean making many errors very quickly.
- **Permanence:** Because e-mail is electronic rather than physical, some people believe it is temporary and they are less careful about what they communicate. In fact, any e-mail message is part of the permanent records of a project. E-mail will be evidence in any controversy or legal proceeding. E-mail also ends up on publicly available websites even years into the future (for example, on DOT sites).
- **Unprofessional language:** Because people communicate electronically with friends, some forget to adjust their e-mail language to the workplace. Their messages are too casual, so they make an unprofessional impression, lack accuracy and precision, and are easily misinterpreted.
- **Personal Misunderstandings:** Because e-mail lacks intonation, e-mails are often taken as more negative than the sender intended. People rely heavily on intonation to understand the attitude behind a message, and e-mail often exacerbates personal misunderstandings.

E-mail messages are **lasting business documents, not informal, personal communication**. The tips below help you make the most of their benefits and avoid the dangers.



What experienced engineering practitioners say about e-mail

"The 'e' in e-mail stands for 'evidence,' as one attorney told me while taking my deposition."

"Sentence structure and grammar are just as important as in any written communication."

"You should ALWAYS re-read your email before you send it. Make sure YOU understand what it says and that it says what you want it to say."

"You want to sound professional but friendly at the same time. It's tricky."

Fifteen tips from engineering practitioners for the use of e-mail

The following tips were compiled from engineering practitioners. You should also check for specific e-mail policies in any workplace.

Sending e-mails

1. Don't let the speed of transmission of e-mail rush your thinking about the content or language. **Take the time you need to think and to review** any background, documents, calculations or other information that you need to write a complete and accurate message. Seek review where appropriate, such as before sending an e-mail to a client.
2. Strive to sound **professional yet friendly**. Many people appreciate an opening of *Good morning* or *Hi* with the name or a brief closing such as *Have a good holiday* to make the message sound friendlier. But remember, an e-mail is a professional document that represents your organization. It is not your personal note.
3. E-mail messages should be **relatively short**. If you need to write multiple pages of information, it is usually more effective to write a memo or report and send it as an attachment with a short e-mail message that introduces the attachment. An attached document can have more obvious formatting to help readers follow the structure of information and find specific items they need. Most people do not read all the way through long e-mails.
4. **Proofread carefully**. Look especially for missing or extra negatives (such as *not*), which make your meaning the opposite of what you intend.
5. Make sure your **contact information** is at the bottom of the e-mail. Include your full name and the organization name. Include your phone number even if you know the recipient has it already. Do not include political or philosophical quotations; remember, this is a message from the organization, not a personal note.
6. **Include a specific, concise, informative subject** for the e-mail. Typically, the project and the specific task are identified:

Too vague	Effective
US20 project bridge design	US20 MP 52.8 Slide Wall Mesa Creek Bridge – foundation design

7. Use **judgment about who to cc**. Do not bombard people's inboxes with irrelevant e-mails, but make sure to include everyone who needs to be aware of the information. When you are uncertain, ask advice from your supervisor. Two general guidelines are
 - **Always cc the project manager** if you e-mail a client. The project manager needs to be aware of all developments on the project.
 - **Never leave someone off the cc list because you don't want that person to know** about a situation. That person will hear about it anyway, and you will lose trust and credibility for not being direct.
8. If the recipients won't obviously know **why they are receiving this e-mail**, make that clear. Make sure everyone knows their next actions. If it's an "FYI" message, say that. Don't leave readers wondering "What am I supposed to do with this?"
9. If you are a new engineer, most of your e-mails will probably be to people within your own office, especially to project managers. **Internal e-mails are still professional documents**, so the same tips apply to them.

When NOT to use e-mail

10. **If you need an answer immediately, use the phone.** Don't expect people to answer your e-mails right away. The recipient could be concentrating on another task right then. The recipient could also be in the field without an internet connection or have an answer too complex to type on a phone.
11. When **a situation requires discussion or is causing confusion, use the phone or meet face-to-face.** It will reduce time and effort over the long run.
Note for students: If you are working on a team project and have a team dynamics problem that needs to be resolved, talking about it face-to-face is usually better than using e-mail so that you include intonation and facial expressions as part of your communication.
12. **Never send an e-mail that you could regret** having forwarded to other people or read aloud in a courtroom. Never write anything negative about anyone. Never send e-mails you write when you are angry; wait to cool off and review what you wrote.

Receiving e-mails

13. When you receive an e-mail, read it, even if you are not the main recipient but only cc'ed. **Read all the way through the message.** Follow up if you are expected to take action.
14. Knowing when to acknowledge receipt of an e-mail is a judgment call. **If the sender is likely to wonder if you got a message or attachment, then a quick thanks to acknowledge receipt is helpful.** As with cc'ing, however, you do not want to bombard people's inboxes with unnecessary e-mail, so think carefully. Don't "reply all" when you simply acknowledge receipt.
15. Especially at the beginning of your career, **notice the language of e-mails you receive at work.** What strategies make ideas easy to understand? What language is professional and direct yet still friendly? What wording confuses you? Use the techniques of the effective e-mails and avoid the pitfalls of the ineffective ones.

What do effective e-mails in the workplace look like?

Below is a sample of e-mails from civil engineering workplaces. Each e-mail also had a signature block with the sender's full name and contact information.

Example 1: An e-mail from an EIT (Engineer in Training) to his supervisor. They have discussed these calculations in person and the supervisor knows the EIT is e-mailing them.

Hi Martina,

Attached are the load calculations for the Blue River Bridge project.
Please let me know if you need anything else.

Thanks,
Ivan

Example 2: An e-mail from a project manager to a structural engineer within the same firm, forwarding a request for information (RFI) from a contractor. The team has handled many previous RFIs.

Rebecca,
Could you start the review on this RFI?
Constantin

-----Forwarded message-----
Constantin,
Attached is RFI232, with regards to the expansion joint rebar detail on the ramp structure.
Please let me know if you have any questions.
Thanks,
Howard Levinson

Example 3: An e-mail from a consulting geotechnical engineer to the project manager in another engineering firm.

Joe,
Attached is a draft geotechnical memorandum for the Blue River Bridge project. Please let us know if you have any questions or comments.
Thanks,
Nicole

Example 4: An e-mail from an engineer in a county agency to an engineer in a state agency. They spoke earlier in the day about a rock fall in the county. The state engineer asked for the exact location.

Vid,
Thanks again for your time this morning. The milepost for the rock fall site is 42.7 on Muddy River Road (County Road #82).
Josh

Notice the similarities in the examples:

- Professional colleagues typically use their first names with each other. This includes the EIT e-mailing his supervisor. (In contrast, when addressing people you don't know, applying for a job, or e-mailing someone in a far superior position, such as the head of a large organization, use the more polite Title + Last Name – e.g. *Mr. Smith, President Smith, Professor Smith*. You are less likely to cause offense.)
- The e-mails include context – names of projects (even though these are also in the subject line), reference to a specific situation (e.g. *the rock fall site*), and identification of attachments (e.g. *the load calculations, the draft geotechnical memorandum*). A busy recipient can open the e-mail and immediately know what it refers to, or re-open it two weeks later and know. At the same time, the

writers do not over-describe the context and make their e-mails verbose. For example, in 4 the sender thanks the recipient for his *time this morning* but there is no need to specify ***this morning (Sept. 5, 2014) when we discussed previous situations similar to the current rock fall on Muddy River Road.***

- The examples all use polite but friendly language. For example, in 2 the project manager's language falls between a command (*Start the review, please*) and an informal suggestion (*What about starting the review...*). He uses *Could you...*, which is a friendly way of directing someone to do something. Example 4 includes a concise, friendly statement of appreciation: *Thanks again for your time today.*
- The e-mails conform to practices for effective writing in civil engineering. Most notably, sentence structures are relatively simple and vocabulary is precise. They also use standard written English.

Notice how the examples differ:

- When the recipient knows the next action to take, it is not explicitly stated. In example 1 the EIT does not tell his supervisor how to use his calculations; she knows. The forwarded message in example 2 does not say, "Please respond to the RFI" because the project manager knows to do that. But when the action is not obvious, the e-mail tells the recipient what the sender expects. In example 2, the project manager specifically asks Rebecca to start the review. In example 3, the writer asks the recipient for any questions or comments.
- In example 1 the writer offers help even though his supervisor knows to ask if she needs anything else. The expression *Please let me know if you need anything else* is a polite way to express cooperation.
- The phrase *Please let me know if you have any questions* is used for different purposes in different messages. In example 3, it tells the recipient the next action. In the forwarded message in example 2, it does not represent the next action (which is to answer the RFI). It is instead a polite, formulaic way of showing cooperation and the desire to be helpful (like the EIT in example 1 writing *Please let me know if you need anything else*). Thus, the same words can have slightly different functions in different contexts.

The most common salutations and closings in e-mail in civil engineering workplaces

In our research, the following are the most common salutations and closings in e-mails among professional colleagues (within offices and between offices). Individuals' choices vary, but the common choices reflect a desire to be professional and friendly simultaneously.

Salutations

To individuals:

FirstName,
Hi FirstName,

To groups:

Hi all,
Team,

Both individuals and groups:

no opening (most often occurs for the second and subsequent messages in a sequence)

Closings

Thanks,
Thank you,
no closing – just first name
no closing – just signature block

These common choices are not the *only* effective choices. However, all effective choices are neither too informal nor too formal. For example, for typical work e-mails, *Dear* is not used as a salutation, nor is

Hey. Sincerely is not used as a closing, nor is See ya later. In each pair, one is too formal (more like a traditional letter), and the other too informal (more like talking with a friend).

Tips for language in e-mail messages

Even if you are currently a student, it is important to practice writing professional e-mails for activities related to your future profession, including course projects. E-mail practice is as important as any other kind of writing practice for the profession.

Below are five tips for composing e-mail messages. Like the tips for using e-mail, they were compiled from experienced engineering practitioners. Read the tips and practice applying them in the revision activities that follow.

Tip 1: Strive for professional and polite communication that is also friendly.	
Not Effective	Effective
<p>1A. <i>EIT to supervisor</i></p> <p><u>Here ya go - calcs you asked for.</u> I had a blast doing them!</p> <p>Stuart</p>	<p>1B. <i>EIT to supervisor</i></p> <p><u>Hi Carmen,</u></p> <p><u>Attached are the calculations for the Eighth Avenue Streetcar Realignment project.</u></p> <p>Stuart</p>
<p>2A. <i>Student to instructor</i></p> <p><u>Hey professor,</u></p> <p><u>Here's my homework. I hope you enjoy it! I worked really hard even though I had the flu.</u></p> <p><u>Sylvie</u></p>	<p>2B. <i>Student to instructor</i></p> <p><u>Professor Wilson,</u></p> <p><u>Attached is the homework for CE 320 due Tues. Nov. 12, 2014. I appreciate your allowing me to submit it via e-mail since I had the flu.</u></p> <p><u>Thanks,</u></p> <p><u>Sylvia Henderson</u></p>
<p>3A. <i>EIT to supervisor</i></p> <p>Dear Ms. Ellis:</p> <p><u>Pursuant to our discussion in your office, I attach the traffic analysis for the Blue River Bridge project. I am at your disposal should you require any additional services.</u></p> <p><u>Your sincerely,</u></p> <p>Ivan</p>	<p>3B. <i>EIT to supervisor</i></p> <p>Lynn,</p> <p>Attached is the traffic analysis for the Blue River Bridge project. <u>Let me know if you need anything else.</u></p> <p><u>Thanks,</u></p> <p>Ivan</p>
<p>Explanation</p> <p>Many novices have difficulty balancing the level of professionalism and friendliness in their e-mails. Most err on the side of sounding unprofessional, but some are so formal they sound stilted.</p> <ul style="list-style-type: none"> • Example 1A is far too informal and vague for the workplace. 1B replaces informal expressions (<i>Hey, Here ya go, calcs</i>) with standard English. 1B also has specific context (<i>the calculations for the Eighth Avenue Streetcar Realignment project</i>). 1A would leave the supervisor wondering which calculations these were. Finally, 1B omits the casual <i>I had a blast doing them!</i> It is irrelevant to the 	

- message (though the EIT might want to tell his supervisor how much he enjoyed the work when he sees her later).
- Writing to an instructor is a professional activity. Example 2A is too unprofessional. The student does not identify the course, the date of the homework, or her full name – all details the instructor needs. The opening *Hey professor* is too impersonal; the professor will probably wonder if this e-mail has even been sent to the right instructor. Comments like *I hope you enjoy it* and *I worked hard* are likely to aggravate the instructor, who expects the student to work hard on every assignment and may well have to spend weekend time reading the homework. In contrast, 2B provides the needed information and deletes the irrelevant. The final sentence skillfully expresses appreciation while also reminding the professor that the student received permission to e-mail her homework because she was ill.
 - Example 3A is ineffective because it is too formal. Expressions like *pursuant to*, *at your disposal*, and *require additional services* sound stilted in an e-mail between people who see each other regularly. *Yours sincerely* is a closing for a traditional letter, not an e-mail between people in the same office. Instead, 3B uses friendly yet professional language. It provides enough context (the name of the project) but omits irrelevant details like *pursuant to our discussion in your office*.

Tip 2: Use standard written English, including complete sentences.	
Not Effective	Effective
<p><i>E-mail from a consulting engineer to a client, answering a question about how much riprap is needed for a bridge repair project</i></p> <ol style="list-style-type: none"> 1. Re the riprap....41 cubic yards.... 2. Estimate 41 cubic yards 	<p>Project: Blue River Bridge Repair, Silver Valley Highway. MP 104.72</p> <p>We estimate 41 cubic yards of riprap will be needed.</p>
<p>Explanation</p> <ul style="list-style-type: none"> • Phrases leave readers to fill in content; therefore, the likelihood of misinterpretation is great. The recipient of example 1 will wonder “Is this an exact amount or an estimate? And what do all those periods mean – is the writer still thinking and this isn’t a final answer?” Non-standard punctuation makes interpretation harder because it has no established meaning. Example 2 makes clear that this is an <i>estimate</i>, but the recipient will likely now wonder “41 cubic yards of what?” • The effective example names the project and then expresses a complete idea by using a complete sentence. It explicitly states that this is an estimate of riprap. Even if the original question is copied below the e-mail, the recipient will appreciate the full information in an easy-to-see place. (Some organizations have a policy of stating the complete project name and location at the beginning of any e-mail message. Other organizations do not have that policy but name the project in the message.) 	

Practice 1. Revise these e-mails to be more effective by applying tips 1 and 2. Invent additional details if needed.

a. A team member answers a question about whether the group should meet on Friday or Saturday:

Hi all,
 Saturday better... for me anyway.....I work Fridays, but if I'm the only glitch in the system, I'll either work something out or I'll find out what happens at the meeting...
 Ariana Ortiz

b. A team leader for a capstone design project thanks a team member for a draft section of the report:

Julie, Thanks for puttin that together, looks good
 Sam

c. A student writes the instructor for a course:

Homework attached - the dropbox will no longer accept it. Unless I missed something about how to turn it in?
 Alfredo

Tip 3: Include enough context so a busy reader understands what you are referring to. Tip 4: Include information about next actions if the recipient does not already know.	
Not Effective	Effective
<p>1A. <i>E-mail sent from project manager to all team member</i></p> <p>Click to open: - Meeting Minutues</p> <p>2A. <i>EIT to supervisor</i></p> <p>Aya, Would you like me to include the load rating calculations? Please answer at your earliest convenience.</p> <p>Gordon</p>	<p>1B. <i>E-mail sent from project manager to all team members</i></p> <p>Hi all, Attached are the minutes of the design team meeting of 11/21/14. Let me know if you have questions or comments.</p> <p>2B. <i>EIT to supervisor</i></p> <p>Aya, For the Blue River Bridge, would you like me to include the load rating calculations?</p> <p>Thanks, Gordon</p>
<p>Explanation</p> <p>An e-mail message needs to provide enough context so readers understand it immediately even if they are working on 6 other projects or look back at the message two weeks later. Even an answer to a question should provide some context. Neither of these originals provide enough context.</p>	

- All attachments need an accompanying e-mail that tells what they are and provides basic context. Example 1A has too little context (and also has a typo). The revision provides the basics (what meeting, when). It also tells recipients what to do with the information (ask questions or comments if they have them).
This guideline for attachments applies to job applications, too. If you submit a cover letter and resume via e-mail, include a message that specifies the job and introduces your attachments.
- Example 2A provides no context. In addition, the command to *answer at your earliest convenience* sounds pushy (even with *please*), and especially for an EIT writing to a superior, it could be offensive. The supervisor knows to answer the EIT's questions; she doesn't need to be told what to do. The revision provides context and deletes the unnecessary command. If it is critical for the EIT to get this information immediately, he needs to call or speak face-to-face.

Practice 2. Revise these e-mails to be more effective by applying tips 3 and 4. Also apply other revisions strategies and invent details as needed to improve the effectiveness.

a. *A team member e-mails a colleague who missed a design team meeting:*

Here are 4 pdf's we were given
Carter

b. *A new engineering graduate e-mails a firm to apply for a job:*

I was very excited to see your job announcement and believe I fit the job well. Please see attached cover letter and CV.

c. *A team member writes other team members two hour before a meeting:*

Hello team,
I'm feeling very sick today as of 11:30am If I get better then i'll meet you guys at Starbuck's, otherwise I'm gonna have to pass on this meeting.
Regards,
Reggie Das

Tip 5: Apply the techniques from all the other language units.

Not Effective	Effective
<p><i>The leader for a student team e-mails the whole team:</i></p> <p>1A. Attached is the <u>final report</u> for our capstone project. <u>It will be finalized next Tuesday</u>, so tracked changes <u>should be used</u> so that when we meet <u>changes can be made easily</u>, and if you have <u>any problems</u>, I need to know <u>before we meet</u>.</p>	<p>1B. Attached is the <u>draft final report</u> for our capstone project. <u>As in our schedule, we meet next Tuesday May 14th to finalize it.</u></p> <p><u>Please read the draft, use track changes for revisions, and bring your copy to the meeting. We will then incorporate changes into the final version.</u></p> <p>If you have <u>problems accessing the draft</u>, please let</p>

me know by noon tomorrow so I can send you a different copy.

Explanation.

Example 1A exhibits many problems of ineffective writing that have been addressed in other language units:

- The wording is not precise. This is a **draft final report**, as 1B makes clear. In 1A the first sentence makes the report sound finished, but the second sentence reveals it is not. Contradictions like that make reading slow and confusing. *Next Tuesday* is also ambiguous. Instead 1B names the meeting day (Tuesday May 14th) and reminds the team they already scheduled this meeting. *Any problems* and *before we meet* are both vague; the revision specifies *problems accessing the draft* and *by noon tomorrow*, and it also explains the reason (*so I can send you another copy*).
- Passive voice (*will be finalized, should be used, can be made*) makes it impossible to tell who will review the draft report. 1B uses active voice so the responsibility is clear.
- The second sentence is a complicated sentence with multiple ideas, which makes it difficult to follow. Readers will not understand what to do. 1B breaks the ideas into separate sentences with clear instructions.

Since e-mails are professional communication, all techniques for effective writing apply. Since recipients generally expect to read them very quickly, effective sentence structure, active voice, and precise vocabulary are especially important.

Additional Practice

I. Using the tips above and other techniques, revise these e-mail messages to make them more effective. All of these examples come from capstone design projects.

a. *A team member sends her draft of the traffic analysis section of a report to the team leader.*

Ali,
Here is a decent rough draft of my part. I will look over it again tomorrow and then bring a printed copy to our meeting. I have a few questions about a couple things....
See ya later,
Andrea

b. *A team leader e-mails clients in a city bureau office about a meeting set up for the next Thursday, April 5.*

Dear Bernard and Regina,
Thank you for making availability in your busy schedules to meet with our team about the Henderson Parkway Realignment project. We look forward to meeting with you both about said project. Could you please inform us of the venue for the gathering once the meeting room is arranged?

Thank you,
Kevin Koh

c. A team leader writes to the whole team about arranging a time to visit a dam. The team discussed this in a meeting but did not decide on a day.

Hey -

Don't forget - We need to check out the dam. Must come up with a couple dates that work for us to travel up there. I vote for one of the days being next Friday.

Remember - 90 minutes from campus. So will take up a considerable chunk of your day. Thanks.

Hugo Nilson

II. Compose e-mails to convey the following information. Invent additional details as needed to make your e-mails effective.

a. Your role: student

The addressee: Janine Washington, P.E., Ph.D., the instructor for a bridge design elective course that you are enrolled in

Content: Course information has two different due dates for a Bridge Site Visit Memo assignment. The syllabus has one day, but the assignment information sheet has the due date a week earlier. You want to know which day the assignment is due. The course will not meet again before the date on the syllabus, so you cannot wait until you see the instructor in the course.

b. Your role: Engineer in Training

The addressee: Your supervisor, Oscar Banderas, P.E.

Content: You have completed the first part of some analysis for the Centerville Wastewater Treatment Facility Upgrade Project. Your supervisor is planning to send you an e-mail with some updated loads for some other calculations you need to do, but you haven't received them yet.

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[Unit 8 v4]



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